



SPEECH & HEARING SCIENCES

UNIVERSITY *of* WASHINGTON

Academic Program Review Self-Study Report

University of Washington
Department of Speech & Hearing Sciences
College of Arts & Sciences
Seattle, WA



Degrees Offered

Bachelor of Science, Speech & Hearing Sciences
Master of Science, Speech-Language Pathology
Master of Science, Medical Speech-Language Pathology
Doctor of Philosophy, Speech & Hearing Sciences
Doctor of Audiology

Year of Last Review: 2000

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PART A: BACKGROUND INFORMATION

Section I: Introduction and Overview

A. Mission and Organizational Structure

1. Introduction to Department and Mission

Speech and Hearing Sciences, at the University of Washington, is one of the top-ranked departments in the field. The department has a commitment to excellence achieved through its outstanding undergraduate and graduate offerings, research programs, clinical education programs, and innovative instructional activities. These program attributes allow students to realize substantial scholarly growth during their studies. The department has a rich tradition of graduate education in both clinical training and research development. Graduates are counted among the finest clinicians and researchers in the country, many of whom head university programs as creative and productive leaders in our profession.

The Department of Speech and Hearing Sciences (SPHSC) has a superb record of research achievement and acquisition of outside grant funds. This clearly speaks to the commitment of the department to research. It has an outstanding faculty, engaged in a variety of teaching and research activities, as well as community and University service. A number of its faculty are national and international leaders in their fields and present a high profile for the University as a whole.

As a unit in the College of Arts and Sciences, the SPHSC department offers the Bachelor of Science, Master of Science, Doctor of Audiology, and Doctor of Philosophy degrees. There are approximately 30 faculty members including clinical supervisory staff, and 300 students across all levels. The department offers a wide range of undergraduate courses that prepare students for graduate study or to enter the work force. The program also provides graduate students with an opportunity to develop scholarly and professional competence in various areas of specialization including:

- speech-language pathology
- audiology
- speech and language acquisition
- hearing development
- speech production
- physiology of hearing and psychoacoustics
- speech perception
- language processing
- human communication disorders
- clinical procedures involved in communication disorders.

The department's academic programs are concerned primarily with the processes and disorders of human communication. Research, teaching, and clinical activities are focused in four major areas: 1) the nature of speech, language, and hearing as related to development and normal processing; 2) the nature and characteristics of human communication disorders across the lifespan; 3) the processes and procedures involved in identifying, preventing, and managing these disorders; and

4) the problems of human/machine communication including speaker identification and speech recognition.

To complement departmental curricula in various specialization areas, close interdisciplinary relationships are maintained with other University departments and off-campus centers. Advanced degrees in the speech and hearing sciences prepare students to conduct research, to teach at the college and university levels, and to provide clinical services to the communicatively impaired.

Mission. To promote excellence in education, research and service delivery, and to further coordinate our unique strengths in basic and clinical sciences to guide our educational and research goals. To achieve this mission we will:

- expand efforts to bring together our strengths in basic and clinical sciences within the department,
- expand the scope of inter-disciplinary collaborations, and
- expand clinical training and clinical service delivery in targeted areas of expertise.

Vision. The vision of the Department of Speech and Hearing Sciences is to be a center for excellence committed to understanding the basic processes and mechanisms involved in human speech, hearing, language, and their disorders, and to improving the quality of life for individuals affected by communication disorders across the life span.

2. Organizational Structure

Administration. The SPHSC department is administered by a Chair and Associate Chair with faculty organized into three principal "interest groups" (Normal Processes of Speech, Hearing, and Language; Audiology; Speech-Language Pathology), each of which is chaired by a group leader. (See Appendix A) Interest groups are advisory to the Chair and the faculty as a whole concerning curriculum planning, evaluation, and scheduling; faculty and TA deployment; and evaluation of graduate student progress. An Executive Committee is advisory to the Chair in matters of overall departmental planning and procedure. It also serves as the departmental Budget Committee. Membership includes the three interest group leaders, the Clinic Director, Associate Chair/Graduate Program Coordinator, Director of Student Services, and Department Administrator. Other principal standing committees of the department are the M.S. and Au.D. Graduate Selection Committees, the Clinic Advisory Committee, the Peer Teaching Evaluation Committee, and the Postbaccalaureate Selection committee, each with broad faculty representation.

Faculty: The department has **11** state-funded tenure-line professorial FTEs and **3** tenure-line professorial FTEs supported by revenues from the self-sustaining, fee-based programs. As of Autumn Quarter 2012, the professorial faculty consists of **5** Full Professors, **7** Associate Professors, and **4** Assistant Professors. The clinical/teaching faculty consists of **2** Senior Lecturers, **8** Lecturers, and **10** Clinical Instructors. In addition, there are **3** Adjunct Professors, **3** Adjunct Associate Professors, and **1** Clinical Assistant Professor.

Appendix C provides a more complete description of our faculty and their areas of interest. In the past ten years, the department has had **10** retirements/resignations and **7** new hires. Only four of these hires were funded through the College of Arts and Sciences. Three

professorial hires were funded via the above-mentioned departmental revenue from self-sustaining fee-based programs, and one position was provided by the College to Speech and Hearing Sciences as a home department for an Assistant Professor (Lee) whose hire was in ILABS.

Staff: Departmental support staff includes eight professional staff members (Administrator, Technology staff supervisor, Assistant to the Chair, Clinic Manager, Undergraduate Advisor, two Graduate Program Advisors, and Fieldwork Coordinator) and eight classified staff members (two Patient Services Specialists, two Fiscal Specialists 1, Graphic Designer, Computer Support Analyst 2, Research Manager, and Research Coordinator).

The Speech and Hearing Clinic: The Clinic has an operating staff of four, which includes the Clinic Director, Clinic Manager, Patient Services Specialist, and Office Receptionist. Students are supervised in their professional practica courses by twenty full or part-time clinical faculty members. (See Appendix C).

The Speech and Hearing Clinic has three primary functions: (1) it serves as a "teaching lab," providing clinical education for our M.S. and Au.D. students; (2) it provides clinical services in the form of evaluations, consultations, and individual and group treatment following the academic quarter system in the university; and (3) it provides department undergraduate and graduate students with access to observations of clinical services (which are mandatory for clinical certification and licensure). On average the clinic handles 4,000 outpatient visits per quarter, depending on the academic quarter. The clinic operates on a fee for service program and receives limited gift contributions as well.

Students: The department currently has a total of **307** students enrolled across its undergraduate and graduate degree programs.

Undergraduate Majors (B.S.) – We currently have **125** students enrolled in the major.

Postbaccalaureate Students (B.S.) – The department typically enrolls 23-25 students in the program. This year **26** students are enrolled.

Master of Science Students (M.S.) – There are two M.S. degree programs in our department. The department typically enrolls 18 students in the Core Speech-Language Pathology program each year and 25 in the Medical Speech-Language Program. We currently have **86** students enrolled across both programs.

Doctor of Audiology Students (Au.D.) –The department typically enrolls 12 students each year. We currently have **48** students enrolled in the program.

Doctor of Philosophy Students (Ph.D.) - This year, our Ph.D. program has **22** students.

Facilities: The majority of the department is housed in two buildings; Eagleson Hall and the Speech and Hearing Clinic. Eagleson Hall houses departmental staff, the professorial faculty, some lecturers, and some graduate assistants. Eagleson is also the location of a large, renovated classroom where our large undergraduate and graduate classes are taught, and the Student Research Lab. The main floor of the Speech and Hearing Clinic building houses clinic facilities for speech-language pathology (therapy and observation rooms) as well as offices for the clinic staff and clinical faculty. The Student Computer Lab, is also

on the main floor of the clinic building. The lower floor of the clinic houses clinical facilities for clinical audiology, classroom labs and individual laboratories for faculty research. A few faculty members' research labs are located in associated facilities (Kuhl at the Institute for Learning and Brain Sciences, Coggins and Folsom have additional research space at the Center on Human Development and Disability).

3. Department Degrees

The department offers 4 degrees and 6 degree programs, as well as an informal concurrent degree program at the doctoral level. Three of our degree programs are funded through the state of Washington (B.S. Undergraduate Major, M.S. in Speech-Language Pathology, and Doctor of Philosophy) and three are fee-based or self-sustaining (B.S. Postbaccalaureate program, M.S. in Medical Speech-Language Pathology, and Doctor of Audiology).

Full degree program details are located in the "Academic Programs" section of our department website:

http://depts.washington.edu/sphsc/academicprograms/ovr_overview.shtml

Bachelor of Science (B.S.) Degree in Speech and Hearing Sciences

The B.S. degree prepares students for graduate study in Speech and Hearing Sciences but is also appropriate for students planning to study other academic disciplines such as psychology, special education, nursing, dentistry, occupational or physical therapy. The department offers two B.S. degree programs:

1. Undergraduate major which is funded through the state of Washington
<http://depts.washington.edu/sphsc/academicprograms/index.shtml>
2. Postbaccalaureate program which is fee-based or self-sustaining
http://depts.washington.edu/sphsc/academicprograms/postbaccalaureate/postbaccalaureate_overview.shtml .

There are approximately 150 undergraduate majors and post-baccalaureate students in the department. The vast majority of the undergraduate majors are Washington State residents, as are the bulk of students enrolled in our post-baccalaureate program. Over the past five years, the number of undergraduate majors has remained relatively constant, while the number of students enrolled in the post-baccalaureate program has doubled in size (currently numbering 26 students). The continued growth of the post-baccalaureate program follows from a Departmental decision to recruit highly capable students who, by evidence of successfully completing an undergraduate program of study, have demonstrated the type of discipline, commitment and mature thinking that is at the heart of graduate study.

Undergraduate major through the College of Arts and Sciences

This academic program encompasses the study of human communication and its disorders across the life span and the study of clinical processes used to assess and treat communication disorders. This degree is for students interested in pursuing graduate study in speech, language or hearing science research or a clinical career in speech-language pathology or audiology. It is also appropriate for students with interests in teaching, neuroscience, physiology, basic science, health care, linguistics, education, or psychology.

The departmental major is two-years (6 quarters) in length, with the majority of students (including transfer students) entering Autumn quarter of their junior year. We do not offer a minor in Speech and Hearing Sciences. There are no coursework prerequisites for the major, but students must have completed a minimum of 60 credits and have a minimum cumulative GPA of 2.5 to apply.

In addition to completing the University and College of Arts and Sciences baccalaureate degree requirements, all students accepted into the speech and hearing sciences major complete:

- a series of out-of-department basic science and statistics courses (minimum of 4 courses) which are required for graduate study and clinical certification in speech-language pathology and audiology
- a set of eight core courses (33 credits) in the department
- coursework associated with one of two possible major pathways or tracks (22 or 31 credits):

Option 1: General Academic. This major pathway is primarily for students interested in pursuing other academic disciplines such as education, medicine, dentistry, physical or occupational therapy, or biological and social sciences. However, it is also appropriate for students intending to pursue graduate study in SPHSC who do not meet the GPA requirements for Option 2 (see below), or who wish to complete fewer courses/credits due to a double major or double degree. Students complete a total of 22 credits.

Option 2: Communication Disorders / Pre-Professional. This major pathway is for students who achieved a 3.0 cumulative GPA or higher in their SPHSC core courses and who wish to pursue graduate level study in speech-language pathology or audiology, or a doctoral degree to pursue a career in research/teaching. Students complete a total of 31 credits

We also offer a departmental honors program for majors with outstanding scholarly potential who wish to pursue an honors thesis under the mentorship of a faculty advisor. Students apply during Junior year and if accepted, complete their honors thesis during senior year.

Postbaccalaureate degree program

This degree program is designed for students who hold a degree outside the speech, language and hearing sciences discipline and wish to complete the prerequisite coursework for a graduate-level clinical degree in Speech-Language Pathology. The program provides students from outside disciplines with the necessary academic foundation in normal hearing, speech and language development, speech acoustics, physiology and perception, hearing, as well as the nature of language, speech and hearing disorders in children and adults and the clinical processes involved in the identification, prevention and remediation of these disorders. Students completing the intensive program can apply directly to any Master's program in Speech-Language Pathology, including the two Master of Science degree programs at the University of Washington.

The Postbaccalaureate program is fee-based and administered in partnership with UW

PCE. It is an intensive, one year (5 quarter) day time program and includes two summer quarters of study. For the 2012-2013 academic year, the instructional fees for the program were calculated at a \$340 per credit rate. For this year, the total program cost, including tuition and fees, was \$23,988.

Per the Memo of Agreement with PCE and College of Arts and Sciences, the department accepts 23-25 students each year. Admission is competitive, and the UW Postbaccalaureate program is one of only 8 degree programs in the country. Most colleges and universities offering leveling coursework in the discipline do it on a non-matriculated or certificate basis, while we offer a second bachelor's degree.

The only admission prerequisite is a bachelor's degree from a regionally accredited college or university. There are no coursework requirements to apply. However, before enrolling in the Postbaccalaureate program, applicants are encouraged to complete 4 out-of-department basic science and statistics courses that are required by ASHA for graduate study and clinical certification in speech-language pathology and audiology. These out-of-department courses are not included in the Postbaccalaureate degree program or tuition.

Students accepted into the program complete 16 required courses and 65 credits in the department. They also fulfill the UW College of Arts and Sciences general education requirement related to "Areas of Knowledge" coursework.

Master of Science (M.S.) Degree

The M.S. degree prepares students for the depth and breadth of foundational knowledge and clinical skills pertinent to the practice of speech-language pathology. The department offers two M.S. degree programs.

1. M.S. program in speech-language pathology (CoreSLP) which is funded through the state of Washington http://depts.washington.edu/sphsc/academicprograms/speech-language-pathology/core_speech_language_pathology_overview.shtml
2. M.S. program in medical speech-language pathology (MedSLP) which is fee-based or self-sustaining
http://depts.washington.edu/sphsc/academicprograms/medical-speech-language-pathology/medical_speech_language_pathology_overview.shtml

Both programs rank third nationally in the *U.S. News & World Report* rankings of speech-language pathology graduate programs. The UW Department of Speech and Hearing Sciences, and its clinical degree programs, are also accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA). All graduates of this program are eligible to apply for ASHA's Certificate of Clinical Competence (CCC). As an accredited graduate program, the Master of Science curriculum adheres to the standards and guidelines set by the CAA.

There are undergraduate coursework requirements for graduate study in both Master of Science programs in Speech-Language Pathology. Applicants to both programs must demonstrate "areas of knowledge" (coursework) in linguistics, phonetics/language science, anatomy and physiology of the speech mechanism, speech and language acquisition and

development, speech and language disorders, hearing science and the nature of sound, the hearing mechanism, hearing disorders, audiometry, aural rehabilitation and management of hearing loss, social-cultural aspects of communication, principles of assessment in communication disorders, and principles of treatment in communication disorders.

In addition to completing this foundational coursework in the discipline, applicants to the CoreSLP and MedSLP programs must have completed a minimum of 25 hours of clinical observation in speech-language pathology and 1 course in each of the following basic science and math areas: biological science (e.g., zoology, biology); behavioral science (e.g., psychology, sociology); physical science (e.g., physics, chemistry); and statistics.

Our programs are highly competitive. Each year, the department receives an average of 300 applications (3-year average) for the Master of Science programs (total across both programs). Typically, the CoreSLP program admits 18 students and the MedSLP program admits 25 students. Admissions and student outcomes data for the last five years are located on our website: <http://depts.washington.edu/sphsc/academicprograms/medical-speech-language-pathology/medical-master-of-science-program-statistics.shtml>

M.S. in Speech-Language Pathology (CoreSLP)

The CoreSLP master's program is a state-funded, full-time day program. It is two-years (8 quarters) in length, including summer quarters. The program enables entry into a variety of clinical practice areas and settings including early childhood programs, schools, outpatient clinics, private practices and hospitals. It also provides opportunities for a focused program of study through elective coursework reflecting their career and/or research interests, as well as complete independent studies with department faculty.

Clinical practica are primarily completed at University of Washington clinical facilities, including the department's UW Speech and Hearing Clinic (UWSHC) and the Center on Human Development and Disability (CHDD). All students end their program with a cumulative, full-time internship in a community setting.

CoreSLP students complete approximately 102-107 credits across the following areas.

- Required didactic coursework (17 courses, 56 credits)
- Elective didactic coursework (with a student-chosen "emphasis path" in *pediatric* or *adult* communication and swallowing disorders):
 - Pediatric emphasis path: 3 required courses (8 credits) + 1 elective course outside the department (= approximately 10 credits total)
 - Adult emphasis path: 1 required course (2 credits) and 2 electives from outside the department (= approximately 6-8 credits total)
- Required clinical coursework (14 courses and about 43 credits, and a minimum of 375 hours of supervised clinical experience in the practice of speech-language pathology plus 25 hours of observation = minimum total of 400 hours)
- Elective Master's thesis option (9 credits of 700 at minimum)
- Independent study option (variable credits)

M.S. in Medical Speech-Language Pathology (MedSLP)

The MedSLP Master of Science program is a fee-based, full-time day program. It is two-years (8 quarters) in length, including summer quarters. It is grounded on the foundational processes and mechanisms involved in human communication and its disorders. It provides a focused, advanced course of study that prepares students for work as a speech-language pathologist in medical settings such as hospitals and rehabilitation centers.

This program is distinguished by its curricular specialization and innovative teaching paradigm, which includes the application of knowledge within a medical framework and a community-based clinical education model. Seattle is a regional health care center, serving patients from a 5-state area (Washington, Wyoming, Montana, Idaho, and Alaska), resulting in a wealth of diverse clinical experience for students.

Tuition for the MedSLP program during 2012-2013 was \$28,048 per year and covers only those courses specified in the MedSLP curriculum. Students complete approximately 116 credits across the following areas.

- Required didactic coursework (24 courses, 72 credits)
- Required clinical coursework (10 courses (42 credits), and a minimum of 375 hours of supervised clinical experience in the practice of speech-language pathology plus 25 hours of observation = minimum total of 400 hours).
- Elective Master's thesis option (9 credits of 700 at minimum)
- Independent study option (variable credits)

Doctor of Philosophy Degree in Speech and Hearing Sciences

The Doctor of Philosophy (Ph.D.) program in Speech & Hearing Sciences is designed for students interested in basic or applied research in the disciplines of hearing, speech or language science. The Ph.D. degree program prepares students to work in research or teaching positions in university, clinical, or industrial settings. It provides foundational knowledge and technical expertise and develops skills in critical thinking, problem solving, and communication.

The program is based on an apprenticeship model with strong mentoring by faculty, and provides students with an individualized course of study, including coursework in research design, statistics, grant writing, and teaching methodology. Courses are taught by faculty members who are nationally and internationally known in their areas of expertise.

Hearing Science & Audiology

- Cochlear Implant Psychophysics and Physiology (Julie Bierer, Ph.D.)
- Pediatric Audiology and EHDDI (Richard Folsom, Ph.D.)
- Neural Mechanisms of Auditory Attention (Adrian K.C. Lee, Ph.D.)
- Spatial Hearing and Psychoacoustics (G. Christopher Stecker, Ph.D.)
- Pediatric Aural Habilitation (Jessica Sullivan, Ph.D.)
- Adult Audiology; Electrophysiology (Kelly Tremblay, Ph.D.)
- Hearing Development (Lynne A. Werner, Ph.D.)

Language Science & Disorders

- Language Development & Disorders; FAS (Truman E. Coggins, Ph.D.)
- Augmentative and Alternative Communication (Patricia Dowden, Ph.D.)
- Etiologies & Interventions for Autism Spectrum Disorders (Annette Estes, Ph.D.)
- Aphasia and Language Processing (Diane Kendall, Ph.D.)
- Child Language Disorders; Clinical Processes (Lesley B. Olswang, Ph.D.)

Speech Science & Disorders

- Adult & Pediatric Voice Disorders (Tanya Eadie, Ph.D.)
- Speech Perception; I-LABS (Patricia K. Kuhl, Ph.D.)
- Sensorimotor Control in Normal Speech and Stuttering (Ludo Max, Ph.D.)
- Motor Speech and Cognitive Disorders (Kristie Spencer, Ph.D.)
- Speech/Language Genetics Lab (Beate Peter, Ph.D.)

The program encourages exploration of courses and faculty interactions across departments. Students can take advantage of the many resources of the University of Washington, including the world-renowned Bloedel Hearing Research Center, the Department of Rehabilitative Medicine, the Center for Human Development and Disability, the Experimental Education Unit, the University of Washington Medical School, and a wide range of interdisciplinary opportunities.

Full details about the curriculum and program are located on our website

<http://depts.washington.edu/sphsc/academicprograms/phd/phd.shtml>

Doctor of Audiology Degree

The Doctor of Audiology (Au.D.) program prepares students for professional practice as audiologists across medical, educational and private practice settings. The Au.D. program ranks third nationally in the *U.S. News & World Report* rankings of audiology graduate programs and is accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA). All graduates of this program are eligible to apply for ASHA's Certificate of Clinical Competence (CCC). As an accredited graduate program, the Doctor of Audiology curriculum adheres to the standards and guidelines set by the CAA.

The Au.D. program has a hybrid funding model; it is partially funded by the state of Washington and partially fee-based or self-sustaining. It is a full time, 4 year (15 quarter) program. During the first 11 quarters, students register and pay tuition/instructional fees to both the UW Registrar and UW PCE. During the final 4 quarters, students are exclusively fee-based and pay instructional fees only to UW PCE.

Additional information about this program is located in the 2010 Self-Study Report in Appendix D and our website:

<http://depts.washington.edu/sphsc/academicprograms/audiology/audiology.shtml>

Concurrent Doctor of Audiology / Doctor of Philosophy

The department offers an unofficial, concurrent Doctor of Audiology/Doctor of Philosophy (Au.D./Ph.D.) program. Students accepted into this concurrent degree program complete all of the traditional, rigorous requirements of our research-based doctorate (Ph.D.) while also

obtaining the training necessary for clinical certification in Audiology (Au.D.). Students interested in this program:

- enroll in the Au.D. program;
- apply for the PhD program in autumn of the second year;
- begin taking electives to fulfill PhD requirements in spring quarter of the second year.

The Au.D. research project, with permission of the PhD mentor and advisory committee, serves as the pre-dissertation project required for the PhD. For that reason, the Au.D. research project must follow the rules for a pre-dissertation project: a committee must be formed, the committee must approve a written proposal, and the project completion criteria must be agreed upon by the committee.

The funding that PhD students are generally eligible for would not begin until the student has completed the first 2 years of the Au.D. degree program. Au.D./Ph.D. students generally complete the Au.D. 4th year externship after the completion of the PhD.

B. Budget & Resources

1. Departmental Budget Summary

Five primary funds make up the greatest portion of the budget for the Department of Speech and Hearing Sciences. These are: 1) General Operating Fund (GOF) made up of institutional funds to support faculty, staff and operations; 2) Research Cost Recovery (RCR) funds flow from indirect cost returns from the College of Arts and Sciences based on indirect expenditures on department research grants; 3) Fee-based revenues generated from tuition paid through Professional and Continuing Education (PCE) for students registering in the Postbaccalaureate, Medical SLP and Au.D. programs; 4) Gifts and Endowments; and, 5) Other Sources of Funds, e.g., other self-sustaining revenues.

The “Funding & Expense Summary” chart below and in Appendix B depicts a summary of revenue and expenditures for the five significant budgets in the department:

- **GOF** is institutional support from Washington State appropriations and operating fee revenue (tuition) as well as other temporary institutional funds.
- **RCR** funds flow back to the academic units that generate revenue from grant and contract expenditures. The formula for return to the department is set to 12.5% on the first \$100k of expenditures and increases linearly to 25% at \$500k and above. The department’s return was calculated at 22.2% for fiscal year 2012. The department, in turn, returns 20% of the department’s share back to investigators as additional support for research activities.
- **Fee-based revenues** are derived from student tuition paid through PCE for all or part of our three fee-based programs (Postbaccalaureate, MedSLP, and Au.D.). Approximately 70% of PCE-collected tuition returns to the department to carry out our programs (PCE keeps ~30% for their overhead). That return is used to run our programs and is reflected in the table below. The difference between program revenue and program expense is then shared with the College of Arts and Sciences (10% to the College). The remaining funds are reserved in a revenue account to be used by the department for salaries, Faculty Development Funds, equipment, and (per agreement with the College) a set-

aside to cover fee-based salaries due to possible future unforeseen changes in the stability of the fee-based programs.

- **Our Gifts and Endowment** budget primarily reflects revenue from five departmental endowments: the Lesley B. and Steven G. Olswang Endowed Graduate Student Conference Fund, the Fred and Barbara Minifie Endowed Graduate Fund, the Palmer Endowed Graduate Fund, the Yantis Endowed Fund, and the Carrell-Miner and Siva Awards fund.
- **Other self-sustaining sources** of revenue are derived from the department's UW Speech and Hearing Clinic, the Clinic's Hearing Aid Dispensary, and student lab fees.

SPEECH AND HEARING SCIENCES FUNDING SUMMARY BY FISCAL YEAR

(Fiscal year is a one year period extending from July 1st through the next June 30th.)

SOURCES OF FUNDS

FISCAL YEAR:	<u>FY08</u>	<u>FY09</u>	<u>FY10</u>	<u>FY11</u>	<u>FY12</u>	<u>FY13</u>
GOF	\$1,947,921	\$1,947,921	\$2,082,427	\$2,082,427	\$2,154,889	\$2,226,86
RCR	\$120,047	\$120,047	\$266,386	\$266,386	\$674,614	\$301,022
PCE	\$224,457	\$74,795	\$187,467	\$232,265	\$442,565	\$337,415
GIFT & ENDOWMENT	\$5,537	\$37,690	\$29,418	\$4,054	\$22,441	\$34,906
OTHER SOURCES OF	\$282,824	\$316,988	\$376,499	\$419,110	\$374,033	\$313,550
TOTAL FUNDING	\$2,580,787	\$2,497,441	\$2,942,197	\$3,004,242	\$3,668,542	\$3,213,757

SPEECH AND HEARING SCIENCES EXPENSE SUMMARY BY FISCAL YEAR

(Fiscal year is a one year period extending from July 1st through the next June 30th.)

SOURCES OF FUNDS

FISCAL YEAR:	<u>FY08</u>	<u>FY09</u>	<u>FY10</u>	<u>FY11</u>	<u>FY12</u>	<u>FY13</u>
GOF	\$1,894,069	\$1,951,0	\$1,788,691	\$2,303,848	\$2,233,885	\$2,147,868
RCR	\$47,805	\$60,388	\$38,168	\$139,826	\$207,526	\$256,457
PCE	\$40,635	\$178,582	\$93,202	\$137,587	\$68,810	\$163,969
GIFT & ENDOWMENT	\$9,438	\$11,450	\$16,719	\$15,217	\$18,295	\$15,846
OTHER SOURCES OF	\$225,426	\$297,036	\$424,920	\$444,748	\$406,530	\$263,650
TOTAL EXPENSES	\$2,217,374	\$2,498,5	\$2,361,700	\$3,041,225	\$2,935,045	\$2,847,790

SUMMARY

FISCAL YEAR:	<u>FY08</u>	<u>FY09</u>	<u>FY10</u>	<u>FY11</u>	<u>FY12</u>	<u>FY13</u>
BEGINNING BALANCE	\$262,951	\$500,300	\$442,673	\$501,217	\$559,094	\$904,499
TOTAL FUNDING	\$2,580,787	\$2,497,441	\$2,942,197	\$3,004,242	\$3,668,542	\$3,213,757
TOTAL EXPENSES	\$2,217,374	\$2,498,506	\$2,361,700	\$3,041,225	\$2,935,045	\$2,847,790
ENDING BALANCE	\$626,364	\$499,235	\$1,023,171	\$464,234	\$1,292,591	\$1,270,466

In addition to the department’s five primary sources of revenue, we receive substantial grant and contract funds. The chart below and in Appendix B shows beginning grant balances, new grants awarded, and total grant funds for FY 2008 – FY 2013. For example, in FY12, the year started with \$2.8M in beginning balances and gained \$3.2M in new grants for a total for that year of \$6.0M in grant funds. Grant funds play an important role in the Department of Speech and Hearing Sciences beyond support of an individual faculty member’s research program. The faculty salary released for work on grant activity comes back to the department as *recaptured* salary and is used to fund teaching coverage that results from buyout as well as funding a number of the clinical faculty deployed to supervise our students. In FY12 and FY13 the recapture revenues were \$292k and \$308k, respectively.

GRANTS & CONTRACTS

FISCAL YEAR	FY08	FY09	FY10	FY11	FY12	FY13
BEGINNING BALANCE	\$2,244,018	\$1,910,782	\$4,217,001	\$3,147,272	\$2,821,182	\$2,132,188
GRANTS AWARDED	\$2,176,451	\$3,171,576	\$3,507,120	\$3,183,510	\$3,208,967	\$2,845,060
TOTAL GRANT FUNDS	\$4,420,469	\$5,082,358	\$7,724,121	\$6,330,782	\$6,030,149	\$4,977,248

2. Evaluating the Use of Funding and Human Resources

The department’s Executive Committee, advisory to the Department Chair, provides ongoing review and evaluation of all fiscal/budget matters in the department as well as advice to the Chair regarding faculty and staff deployment. Each month, the Chair reviews budgets with the Department Administrator and brings current concerns or future concerns to the Executive Committee for discussion.

Decisions regarding hiring of Professorial faculty are solely the right of the voting faculty in the department, as are financial decisions that would directly impact department sustainability. An example of this latter category would be a decision surrounding the long-term commitment of fee-based revenues such as the hiring of a tenure-line, professorial faculty member. Decisions such as this impact all and are thus based on input from all voting members of the faculty. Deployment of faculty is the responsibility of the Chair, with significant input from the heads of the department’s three interest areas, and must take into account the department’s teaching needs, teaching loads, and grant release.

3. Funding Strategies

In times of decreasing budget flexibility in the College, the department relies on revenues from fee-based programs as a source of funding to maintain the strength of the academic and clinical programs. On an annual basis, the department has revenue flow from the fee based programs that has averaged ~\$200k since FY08. In the last three fiscal years, our portion of revenues was \$187k, \$232k and \$443k with the College’s portion at \$21k, \$26k and \$49k. While reliance on fee-based budgets for funding faculty positions, faculty development, equipment, etc. can certainly be a double-edged sword, it has turned out to be a successful means of producing a revenue stream that we could never have realized through Gifts or Endowments.

We continue to work closely with our College Development officers to increase current donations and generate new possibilities. The table above, however, shows that realized revenue from endowments does not begin to compare with what has been realized through the fee-based programs. Our best strategy continues to be the careful stewardship and management of these revenue-generating programs.

PART A: BACKGROUND INFORMATION

Section II: Teaching & Learning

A. Student Learning Goals & Outcomes

The Department of Speech and Hearing Sciences (SPHSC) is concerned with the fundamental processes human communication - speech, language, and hearing – as well as the causes and treatment of its disorders. Student learning goals are established by the Speech and Hearing Sciences faculty, the UW Graduate School, and through national standards determined by the American Speech-Language-Hearing Association (ASHA), which is the professional, scientific, and credentialing association for speech-language pathology, audiology, and speech, language, and hearing science. Learning goals are outline for students on their degree program plans, syllabi, course websites, and on the academic program sections of our department website.

1. Bachelor of Science

The Bachelor of Science degree provides students with foundational knowledge in the basic sciences of human communication and its disorders. The curricula in both the undergraduate major and Postbaccalaureate programs are exemplary in their combination of basic science and clinical application, implementation of experiential learning and, critical reading of and thinking about research literature.

a. Student Learning Goals

The overarching student learning goal is to provide a balanced education with respect to basic communicative sciences and the clinical process. We believe that by studying both normal and disordered communication, students develop the ability to think critically, independently and humanely about the universe in which they live.

The prime learning objectives include knowledge of the mechanisms and processes involved in speech, language and hearing; analyzing the structural, ideational and functional properties of language; understanding the principles and procedures assessing and treatment of individuals with communication disorders across the lifespan; understand the etiology and social-cultural aspects of communication and its disorders; and, completing coursework required for future professional certification.

Participating in research plays an integral part in our undergraduate education. Academically high-achieving students have the opportunity to participate in the Departmental Honors Program. The students admitted into this program are mentored by SPHSC faculty during their senior year and complete an Honor's project that is presented at the department's annual Spring Research Colloquium and the annual UW Undergraduate Research Symposium. A BS degree "With Honors in Speech and Hearing Sciences" is conferred on students who successfully complete this program.

b. Evaluation Methods for Assessing Student Learning

Our primary method of evaluating student learning and satisfaction is classroom-based assessment. At the conclusion of each academic quarter, students are provided the opportunity to formally evaluate each their respective courses and instructors. The evaluations are conducted through the University's Office of Educational Assessment

and use Likert-type satisfaction scales (e.g., 5 = Excellent, 3 = Good; 0 = Poor) to appraise course organization, their instructors' effectiveness in teaching, the amount they learned and relevance and usefulness of course content. Students also provide handwritten comments (generally, thoughtful and constructive) to a series of open-ended questions (e.g., What aspect of the class contributed most to your learning? Why?). Students also meet routinely with the Undergraduate Advisor to provide feedback about individual courses which is then funneled to the Undergraduate Program Coordinator and/or instructors as appropriate.

c. *Evaluation Methods for Assessing Student Satisfaction*

The department conducts an annual exit survey with all graduating postbaccalaureate students that is focused on assessing the department's success in meeting the educational goals for the degree program. UW PCE, our administrative partner for the postbaccalaureate degree program, helps administer and compile the results which are then reviewed annually by the faculty to inform changes and improvements to the program. As mentioned above, students also meet routinely with the Undergraduate Advisor to provide feedback about the program which is then funneled to the Undergraduate Program Coordinator and/or instructors as appropriate.

d. *Use of Assessment Findings*

Student feedback is actively solicited and seriously considered in an ongoing effort to improve the quality of instruction and shape the curriculum. As a matter of department policy, the Chair reviews the results of each Office of Educational Assessment, for each class an instructor teaches, to identify challenges that might have surfaced in a classroom during a quarter. In addition, each year, all instructional faculty submit a teaching portfolio, that includes student evaluations, peer evaluations and self-reflections, to the department's Teaching Evaluation Committee. Finally, students routinely share their comments about the quality of instruction through exit surveys and with the Undergraduate Program Advisor who has a direct line of communication with the Associate Chair.

e. *Undergraduate Non-major Learning*

The department offers two "service courses" – SPHSC 100 (Voice and Articulation Improvement) and SPHSC 111 (The American English Sound System). While both courses discuss general principles, processes and mechanisms of speech and hearing, SPHSC 100 is designed for students who are native speakers of English while SPHSC 111 focuses on students learning English as a second language. The main objective of SPHSC 100 is to demonstrate how knowledge of speech, language and hearing supports better public speaking and general communication abilities. The goal for SPHSC 111 is for students to learn the basics of phonetic theory as a tool for the development of more natural, "native-like" speech production. Both courses are offered quarterly; both courses consistently fill to capacity; and, both courses routinely receive strong, positive student evaluations.

2. Master of Science

There are two Master of Science degree programs within the Department of Speech and Hearing Sciences: the Master of Science in Speech-Language Pathology (CoreSLP), and the Master of Science in Medical Speech-Language Pathology (MedSLP).

a. Student learning goals

The Master of Science degree programs in Speech-Language Pathology are both designed to prepare students for professional practice as speech-language pathologists. Engaging in the activities of preventing, assessing, and providing intervention for communication and swallowing disorders across the lifespan. The program is nationally accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA) of the American Speech-Language-Hearing Association (ASHA). The goal of the degree program is to provide students with a curriculum that meets or exceeds the academic and clinical practice requirements for professional certification. The ASHA standards for speech-language pathology are located online at http://www.asha.org/certification/slp_standards/

i) CoreSLP Master of Science program

For the didactic component of the program, students complete 17 courses which are focused on prevention, assessment, and intervention of children and adults with disorders and differences in articulation, fluency, voice and resonance, receptive and expressive language, hearing, swallowing, cognitive aspects of communication, social aspects of communication, and communication modalities. In addition, students take coursework related to ethical conduct standards, research processes and principles for evidence-based clinical practice, contemporary professional issues and issues related to certification, specialty recognition, licensure, and credentialing. Students must also choose an elective path (focused on pediatric or adult communication and swallowing disorders) and subsequent elective coursework to enhance their professional specialization in pediatrics or adult/geriatric speech-language pathology practice.

For the clinical practicum component of the program, students complete a series of clinical practicum experiences that provide breadth and depth of exposure to various practice settings, populations, ages, and disorders. During the first year and a half of the program, the clinical experiences are part-time and occur in the UW Speech and Hearing Clinic, one practicum in a Washington state public school district, and one rotation in the UW Center for Human Development and Disability (CHDD). At the end of the second year, students complete a pre-internship and a culminating, full-time clinical internship experience in the community in the area of the student's interest.

ii) MedSLP Master of Science program

For the didactic component of the program, students complete 24 courses which are focused on prevention, assessment, and intervention of children and adults with disorders and differences in articulation, fluency, voice and resonance, receptive and expressive language, hearing, swallowing, cognitive aspects of communication, social aspects of communication, and communication modalities. Students also take coursework related to ethical conduct standards, research processes and principles for evidence-based clinical practice, contemporary professional issues and issues related to certification, specialty recognition, licensure, and credentialing. In the second year, students take enhanced, focused coursework significant to the practice of medical speech-language pathology. This coursework helps differentiate the didactic component of this program from the CoreSLP program.

For the clinical practicum component of the program, students complete a series of clinical practicum experiences that provide breadth and depth of exposure to various practice settings, populations, ages, and disorders. During the first year of the program, the clinical experiences are part-time and occur in the UW Speech and Hearing Clinic. During the second year, students complete a series of part- and full-time clinical practicum placements in community facilities. The community-based practicum placements introduce students to a variety of populations across the continuum of care, and helps them acquire knowledge and skills best obtained in medical and clinical settings. At the end of the second year, students complete a culminating, full-time clinical internship experience in the community.

The following outcomes are expected as a result of the combined didactic and practical coursework across both Master of Science Programs:

- Demonstrate a knowledge foundation concerning communication and swallowing disorders and differences across the lifespan, including appropriate etiologies, characteristics, anatomical/physiological, acoustic, psychological, developmental, and linguistic and cultural correlates
- Demonstrate a knowledge foundation concerning approaches to prevention, assessment, and intervention of communication and swallowing disorders across the lifespan
- Practice in a variety of clinical settings such as early childhood education centers, medical facilities, schools, skilled nursing facilities, and private practices
- Provide clinical services to individuals across the variety of communication and swallowing disorders
- Provide clinical services to individuals across the lifespan
- Provide clinical services in a variety of work settings
- Critically evaluate the appropriateness and effectiveness of preventative strategies, assessment techniques, and clinical intervention approaches
- Demonstrate preparation for the full breadth and depth of the scope of practice in speech-language pathology
- Demonstrate an ability to personalize an approach to clinical practice and adapt to meet the needs of the individual as well as attitudinal and environmental constraints
- Demonstrate clinical decision-making skills

b. Evaluation methods for assessing student learning and progress

Evaluating Student Progress – The department adheres to our established Master of Science Program Satisfactory Progress Policy. A policy summary is posted on our website, a full copy of the policy is in the “Graduate Student Guide” posted on SharePoint (our department intranet site), provided to all new students in hard copy form upon entry into the program, and reviewed during new student orientation. The policy outlines the standards and expectations for performance in terms of scholarship, progress toward degree completion, and demonstration of essential behaviors. It also outlines how remediation is handled should there be a progress issue.

Classroom/ Didactic Coursework – In the classroom, student learning is assessed through a variety of methodologies; written assignments, quizzes, exams, lab work, projects, etc. Each individual instructor is responsible for communicating his/her

specific remediation policies and procedures in the course syllabus. As needed, instructors work directly with students to remediate any course-specific progress issues.

Clinical Practicum Coursework – In clinic, student learning is also assessed through a variety of methodologies. Each student is supervised by an ASHA-certified speech-language pathologist. All UW faculty and community-based clinical supervisors use the UW Clinical Evaluation Form to formally document and communicate student progress at midpoint and the end of each quarter. Additionally, supervisors communicate with students weekly about performance during the clinical course (written and verbal feedback), providing opportunities for growth. As needed, faculty will create a specific plan of improvement for a student to remediate performance issues identified within a quarter. A cumulative full-time internship experience occurs at the end of every student's program in a community-based facility (or facilities). This experience provides the student with the opportunity to demonstrate knowledge and critical-thinking skills at the culmination of their educational program.

Knowledge and Skills Acquisition (KASA) – Students must acquire the knowledge and skills required for certification through ASHA (American Speech-Language and Hearing Association). At the conclusion of each clinical practicum, students meet with their supervisor to review their clinic progress relative to the KASA standards. Students track their progress on a departmental computer-based program that documents their didactic and clinical coursework, as well as their clinical hours.

Master's Thesis. Students in the CoreSLP or MedSLP programs have the option of completing a master's thesis. Completion of a thesis provides evidence of mature scholarship in a particular area of study within the discipline. Students who complete a thesis investigate a variety of research topics under the supervision of graduate faculty mentors. The studies they complete contribute important and useful information or organization to the discipline, and have resulted in numerous peer-reviewed publications. Students who complete a thesis demonstrate a firm grasp of the problems in a particular area of study and indicate an ability to communicate ideas in writing. Examples of research projects completed in the past include treatment efficacy studies in individuals with acquired language disorders (aphasia), effects of listener experience in evaluating voice disorders, surgical/medication effects on speech in Parkinson's Disease, and the effects of child-directed treatment for young children with motor impairments on their caregivers' facilitative behaviors.

Experiences Unique to the MedSLP program:

Clinical Forum in Speech-Language Pathology (SPHSC 549): This two quarter experience provides students who are in off-site practica with timely, comprehensive and relevant information pertinent to their continued clinical education, with an emphasis on delivering state-of-the art, evidence-based services to persons with communication and swallowing disorders. These goals are met through weekly clinical case evaluations as well as group discussion focused on professional issues. This course offers the opportunity to integrate information from the entire program of study. The class is designed to cover a broad range of topics in speech-language pathology, including those most pertinent to medical settings. It explores the student's abilities to

demonstrate appropriate breadth and depth of understanding in the major areas as they pertain to clinical problems and procedures.

c. *Evaluation methods for assessing student satisfaction*

The department conducts annual exit surveys with all graduating Master of Science Speech-Language Pathology students to assess the department's success in meeting the educational goals of both degree programs. UW PCE, our administrative partner for the MedSLP degree program, also helps administer and compile the results for that program. The results are then reviewed annually by the Speech-Language Pathology interest group faculty to inform changes and improvements to the program.

Within both didactic and clinical practica settings, instructors receive regular feedback from students via formal (e.g., Center for Instructional Development and Research; course evaluations through the Office of Educational Assessment) and informal (e.g., via various UW Catalyst tools) methods. The feedback is sought during the didactic course or practicum experience, as well as at its end. Faculty also execute yearly satisfaction surveys with students regarding the quality of their community-based practicum sites.

In addition to the use of formal surveys, student representatives are selected each year to act as a liaison between faculty and the speech-language pathology students. These representatives attend most monthly Speech-Language Pathology Interest Group meetings and are tasked with bringing forward any student concerns, contributing opinions to open discussions, and sharing information from meetings with the other students.

All Master of Science Speech-Language Pathology students are assigned a Graduate Program Advisor in the Student Services Unit with whom they can meet and informally discuss any concerns, program feedback, course feedback, individual student progress and goals, etc.

d. *Use of Assessment findings*

The program regularly evaluates the quality and effectiveness of the Master of Science Speech-Language Pathology programs and the process by which it engages in systematic self-study. The assessment results also are used to plan and implement program improvements that promote high-quality educational experiences for students.

Multiple sources for collecting and evaluating data on student satisfaction and learning are employed (see above), including course evaluations by clinical and didactic instructors, supervisor evaluations (community supervisors), exit interviews, alumni/graduate surveys, employer surveys, program completion rate, Praxis examination pass rates (i.e., the national examination adopted by ASHA for purposes of certification in speech-language pathology), and employment rate of graduating students.

The program conducts a comprehensive assessment of the collected data on an annual basis. These data are reviewed at Speech-Language Pathology interest group meetings, and considerations are made for program improvements based on the data. Student

feedback from course evaluations and clinic practicum assessments are included in the assessment data. Results of these assessments have been used to improve the program in various ways. For example, faculty actively make changes to individual courses based in feedback from consultations with the Center for Instructional Development and Research to improve lecture style, test construction, etc., in response to student evaluations of teaching. In addition, feedback has also been used across the program to institute broad-based curriculum changes. For example, when content important to the scope of practice in speech-language pathology is not adequately represented, the faculty have instituted changes in coursework (e.g., a stand-alone counseling class was recently added to the curriculum). The faculty have also used student input to consider changes in format for summative assessment experiences (e.g., a previously instituted comprehensive examination has been replaced with a number of integrative assignments and activities across a number of courses). As expected, this is an ongoing and ever-evolving process.

3. Doctor of Philosophy

The Doctor of Philosophy degree in Speech and Hearing Sciences was established in 1930. Each year the department receives an average of 8 applications (3-year average) and enrolls a total of 22-25 doctoral students.

a. Student learning goals

The goal of the PhD program is to prepare individuals for a career in research. Students are expected to acquire a knowledge base in speech and hearing sciences as well as a deep knowledge and understanding of a specific research field. They are expected to learn the principles of research design and to apply those principles in carrying out research projects. Students also learn to present their research findings to their peers, to write scientific papers, and to write grant applications. Students learn to be responsible members of the research community. Students who intend to pursue a career in academics also learn the principles of effective teaching.

b. Evaluation methods for assessing student learning & satisfaction

The PhD program depends more heavily on hands-on learning than on didactics to help students achieve these learning goals. While student's learning of general information in the field is evaluated in coursework, they learn more in independent study, directed readings and seminars. Success in acquiring the knowledge that will support a program of research is indicated by the successful completion of the General Exam, by the development of a well-designed dissertation proposal and by successful defense of the dissertation.

Students are required to complete coursework in research design, and their research skills are evaluated in the laboratory beginning very early in their program of study. Students must carry out a pre-dissertation project of publishable quality, and of course, they must successfully carry out dissertation research.

Students' oral presentation skills are honed in the weekly Doctoral Research Forum, in which students make conference-style presentations two or three times each year. The number of presentations at scientific conferences is considered evidence of the development of oral presentation skills.

Many students complete a course in scientific writing, but all are expected to publish the results of their research while in the doctoral program. The student's publications are considered in the evaluation process. Students are required to complete a course in grant writing, focused on the preparation and submission of a pre-doctoral fellowship application.

Students are exposed to ethical principles of research in the laboratory and in the Biomedical Research Integrity course. Those who work as teaching assistants, who teach courses, or include teaching as one of their career goals, participate in the Instructional Development Forum, a seminar-style course focused on the principles of effective teaching as well as approaches to handling issues that frequently arise in teaching. Students who plan to teach also complete a teaching practicum, in which they co-teach a course with a faculty member. The faculty co-teacher and the students in the class evaluate the student's teaching during the practicum.

Students are evaluated by their mentors on a quarterly basis and by the professorial faculty annually. The factors considered in the evaluation process include the student's progress in moving through the program milestones—pre-dissertation project, general exam, dissertation proposal, dissertation defense. In addition, the number of conference presentations and publications is considered. The student's success in obtaining dissertation funding and success in completing teaching requirements are also evaluated. Ultimately, we evaluate our success in educating PhD students by the number of students who continue on to successful careers as researchers.

Student satisfaction is assessed in meetings between PhD students and their mentors.

c. Use of Assessment Findings

Our assessment of students' successful development into independent researchers has been a major factor in the development of the PhD curriculum. The Doctoral Research Forum, for example, grew out of a Brown Bag Lunch Bunch lead by a faculty member, when it became apparent that students needed more practice in oral presentation. The Grant Writing course began as an attempt to give students the opportunity to develop a plan of research, but eventually became an annual workshop to support student's preparation of NIH fellowship applications, based on student success, or lack of success, in getting their applications funded. Similarly, observations of students' teaching skills led to the institution of the Instructional Development Forum.

- 4. Doctor of Audiology** – Please refer to the 2010 Self-Study Report in Appendix D for details.

B. Instructional Effectiveness

1. Evaluating the Quality of Instruction

The Department of Speech and Hearing Sciences conducts peer teaching reviews and merit reviews at varying intervals depending on faculty rank in accordance with UW policies. Merit reviews occur annually and peer teaching reviews occur annually for assistant professors, full and part-time lecturers and clinical faculty. Full professors, associate

professors and senior lectures are evaluated every three years for the peer teaching component.

A peer teaching committee evaluates each faculty member on the following self-submitted criteria. For each course or practicum taught, the instructor provides: syllabus, sample of lecture, sample of assessment tool (quiz, exam) and copies of instructional assessment forms including student comments. Faculty members are responsible for uploading materials to a website using a Peer Teaching Feedback Checklist. This material is then reviewed by the committee and reported using a Peer Teaching Committee Feedback form. Each faculty member obtains a rating of “acceptable”, “needs attention” or “NA” for each of the measures. They also receive an overall rating for each course/practicum of “1” if they meet/exceed expectations or “O” if not meeting expectation. If a faculty member receives a “O” rating the faculty member meets with the Chair of the Department and a copy of the Peer Teaching Feedback Checklist would be placed in the faculty member’s record. The Chair would work with the faculty member to develop a plan to assist that faculty member into meeting departmental standards.

Additionally, each faculty member participates in a Merit Review annually. During this process each faculty member provides the following documents: a current CV, yearly activity report (professorial version and lecturer version) and a personal statement regarding their progress in the previous year with additional goals for the upcoming year. A peer observation may also be conducted as part of the Merit Review process. Faculty files are reviewed by peers. Ratings are only counted for colleagues within equal or higher ranks (i.e. full-time lecturers review full-time lecturers, part-time lecturers and clinical faculty but they do not review senior lecturers).

As part of the interview process for any position requiring classroom instruction, the applicant must conduct a lecture for a course. This lecture is observed by current faculty members and students. Once hired, the new faculty member is mentored by a senior faculty member and will be observed for at least one additional lecture. Faculty members are also encouraged to use the Center for Instructional Development (CIDR) for additional teaching support.

2. Teaching Opportunities and Support

Doctoral and graduate students, including TAs, are provided additional training through SPHSC563 Instruction Development Forum course. This course is designed to provide students with general and specific information regarding teaching at the college/university level. The course will expose students to University of Washington teaching resources and provide opportunities to learn about instructional techniques and issues as they relate to teaching in the discipline of communication sciences and its disorders. Guest speakers, panel presentations, group discussions will be included in the course delivery. Students are expected to be actively engaged in both the teaching and learning of material.

Students are required to complete two assignments during the year. One assignment is to investigate and lead a class discussion on a topic related to teaching and of particular interest to the student. The other assignment is to develop and write a short essay regarding the student's philosophy of teaching. The course is designed to not only provide opportunities to increase knowledge and skills in regards to teaching, but also as a forum for

students to share personal experiences and insights related to teaching and learning.” In addition, the course website is available for TA resources such as sharing teaching tools, sharing previous syllabus and previous labs. Each TA is also supported by and works closely with the faculty member teaching the respective course.

When clear correction is needed, faculty members have consulted with Center for Instructional Development and Research (CIDR), either voluntarily or at the urging of the Department Chair or Head of their respective Interest Group section. These efforts have demonstrated improvement on test construction, lecture style, management of grading data or all of the above. Consultants from CIDR have observed in the classroom environment to provide feedback to instructors. This has included obtaining information from students to share with the faculty member.

In order to enhance teaching effectiveness, faculty members attend numerous continuing education courses to further their knowledge base in didactic and clinical areas. The department encourages and supports faculty in this mission to remain current in our profession.

3. Examples of Instructional Changes in Response to Teaching Evaluations

Enrollment and class sizes in our undergraduate program have increased. Students commented that they wanted and needed more hands-on learning opportunities in these larger courses. As a response to student teaching evaluations, several instructors now use pod-casting and “clicker” response technology in their courses (e.g., SPHSC 261, 320, 461). These refinements have improved overall content and student learning as reflected in improved course evaluations.

At the graduate level, students commented on the “disconnect” between principles presented in lecture and the application of these principles in the development of their own research. To address these concerns, Professor Werner “flipped” her Research Methods course (SPHSC 504). Students now learn basic principles from reading and studying their textbook; class time is used exclusively for solving problems that apply core principles. Video lectures and electronic lecture notes are available to students, but all of the learning in the classroom involved active problem solving. Student’s scores on the final exam were 15-20 percentage points higher than in previous years.

C. Teaching & Mentoring Outside the Classroom

1. Faculty Involvement in Learning Outside the Classroom

Teaching and mentoring outside of the classroom are essential to our department mission. Faculty and staff are actively involved in supporting student learning across diverse experiences including special seminars and workshops, clinical experiences, research projects, research assistant/teaching assistant positions, and student leadership groups.

Special seminars and workshops: The department holds many special seminars and workshops for its students throughout the year. Faculty members coordinate weekly Seminars in Hearing and Communication Sciences (SHACS) throughout the academic year. These talks are given by researchers and scholars from inside and outside the University. On a quarterly basis, the department also holds a Grand Rounds event in

which clinical professionals from the UW or the community present on an interesting case. Discipline-specific brown bag events are held quarterly by faculty and every year we offer our Minifie Lecture and Distinguished Alum presentations in the department.

Clinical experiences: One of the great strengths of our department is the connection of students to direct clinical practice in the UW Speech and Hearing Clinic and community settings. Undergraduate students are supported in completing clinical observations in our clinic, as well as through partnerships with community sites. Observational experiences provide students with foundational learning about the profession, the principles of assessment and treatment, and the depth and breadth of communication and swallowing disorders across the lifespan.

Clinical graduate students are all assigned clinical rotations during their program. Faculty work with students individually during this experience to find appropriate clinical experiences and provide mentoring, teaching and guidance in a close relationship. The clinical mentor meets with the student weekly to provide additional feedback and to assist the student in planning further sessions. Close mentorship allows teaching of specific skills as well as demonstration of critical interpersonal and professional behaviors within a clinical environment.

We have affiliations with over 250 community sites that have committed to mentor our students every quarter. These community sites as well as other sites around the nation also provide part- and full-time mentored experiences. These relationships are critical to the overall clinical education of our students. We have established excellent relationships with these sites where we believe the students receive quality clinical instruction that is continued beyond the classroom and department clinical facility. We are confident these sites are committed to mentoring the next generation of speech and hearing professionals by providing these quality growth experiences.

To support our colleagues who volunteer as clinical supervisors, our department provides mentorship through quarterly trainings, by offering free continuing education, through honoraria, and an annual “Summer Institute on Supervision” to support their supervisory training and education. These mechanisms enhance relationships, provide continuing education hours and opens dialogue between supervisors and the university. These events have been well-received by participants to enhance their teaching effectiveness.

In addition, faculty members provide many special clinical opportunities to students throughout the year that also benefit the community in which we live:

- We hold an annual intensive voice evaluation clinic in which our students have the opportunity to learn videostroboscopic assessment and serve the drama students from Cornish.
- Faculty and students hold an annual Aphasia Day which provides education and therapy to individuals with Aphasia, and their caregivers.
- Students are engaged in helping and participating in the Young Stroke Survivors Groups at Northwest Hospital

- Students are mentored in providing in-services on various topics related to communication and swallowing disorders at Skilled Nursing and Assisted Living facilities.

Research: Professors and lecturers are research mentors to students at the undergraduate and graduate levels. All students in the department are offered opportunities to work with faculty through Independent Studies. We also offer an undergraduate honors program as well as master's thesis, clinical doctorate capstone project, and doctoral dissertation experiences to our students. In addition to classroom training on how to conduct a literature search and design an experiment, faculty work one on one with students to help them develop research questions and then assist them throughout the design, implementation and written document. All students present a final written product, conduct an oral defense, and complete a public presentation. Many students also present their research projects at state and national meetings.

RA/TA Positions: Faculty mentor students through Research Assistant or hourly positions available in their research labs. Experience and mentorship received in a research lab has exposed students to opportunities in research and has motivated many students to ultimately pursue the Ph.D. degree.

Students are also offered hourly positions in the Audiology Diagnostic Clinic and the Lions Hearing Aid Bank. In these positions students work closely with Audiology Clinical faculty and learn important professional skills related to the field. Students are given experience and mentorship in practice management areas which facilitate and enhance the transition to expectations in clinical environments.

Graduate students are eligible for Teaching Assistant positions after their first year of graduate study and work closely with instructional faculty. Students who serve as Teaching Assistants meet regularly with the course instructor, our department's lead TA, and are mentored in the essential elements of effective teaching and grading.

Student Groups: Faculty and staff members mentor students through the University of Washington chapters of the National Student Speech Language and Hearing Association (NSSLHA) and the Student Academy of Audiology (SAA). These organization are for speech, language and audiology students from undergraduate through graduate studies. These relationships assists student members to develop leadership skills that they will hopefully carry into their professional career. Students produce a quarterly newsletter and work with faculty to hold key events and fundraisers throughout the academic year.

2. Student Recruitment

The admission of highly qualified and diverse students is a priority for our department. Our Student Services unit leads our marketing and recruitment efforts and collaborates with designated faculty (i.e., Selection Chairs) for each of our degree programs. Because of our high program rankings in the disciplines of speech-language pathology and audiology (all programs are ranked 3rd nationally), the UW's international standing as a leader in research, as well as the positive employment outlook in our field, our recruitment activities are focused on attracting top talent. Applications to both our undergraduate and graduate

programs have increased every year for the past five years and we typically have no difficulties attracting students and applicants to our programs. However, where we do experience difficulties (particularly for our M.S. and Au.D. programs) is in enrolling top applicants, due to limited recruitment funds. Lack of funding in this area remains a challenge and we often cannot compete with offers from other top ten programs, especially in terms of recruiting students from underrepresented groups.

Our web site and national reputation are our advertising and primary recruitment tools, and every year the Student Services unit develops and implements a specific marketing plan for our academic programs (in collaboration with UW PCE) to attract top students. The department and PCE oversee and coordinate these activities which include:

- maintenance of the website
- maintenance of our Google™ click campaign
- management of prospective students (e.g. responding to inquiries, tracking “leads”, arranging departmental visits, etc.)
- creating and implementing promotional and advertising materials
- coordination of recruitment at key University events such as Dawg Daze and UW PCE Career Fairs, as well as conferences and events sponsored by state and national professional societies (e.g., WSLHA, ASHA, AAA).
- conducting applicant surveys
- conducting market and competitor analyses

Recruitment strategies and target markets vary by degree program. Undergraduate recruitment is done through campus events, invited presentations at other departments on campus, and in partnership with Undergraduate Academic Advising (pre-health advising). Our Postbaccalaureate recruitment activities are primarily focused on students within Washington state, but also in other key states such as California and Oregon.

For our clinical graduate programs (M.S. and Au.D.), recruitment is focused both inside and outside of the state. We offer some limited recruitment scholarships during our admissions process, including 3 Top Scholar awards (which we’ve been granted for the past several years) and several small departmental scholarships. Lack of recruitment funds and scholarships are an ongoing obstacle in terms of attracting strong and diverse students. The bulk of our funding is directed at PhD students, so it can be hard to compete with the other top ten programs (particularly those in the private sector).

- In Washington, we look to our own top undergraduate majors and postbaccalaureate students for recruitment, and hold special advising and informational sessions. We also recruit from the three other programs in the state (WWU, EWU, WSU).
- In the national arena, we are particularly focused on the 14 participating states in the Western Interstate Commissions for Higher Education (WICHE). These states are: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Wyoming. Both the Au.D. and Core Speech-Language Pathology programs participate in WICHE’s Western Regional Graduate Program (WRGP), whereby top applicants from any of the 14 WICHE states can attend the UW at the in-state tuition rate. The WRGP tuition waivers were implemented in 2011 (Au.D.) and 2013 (M.S.) and are proving to be a powerful recruiting tool for us in attracting top talent.

PhD student recruitment is highly selective and cohort sizes are kept small. In a typical year, we receive approximately 10 applications and accept 3-6 students depending on faculty availability and interest. There is an emphasis on recruiting PhD students who have a strong aptitude for research, have a clear focus on research questions and issues that are linked to primary domains in the discipline, and a clear commitment to the advancement of our field. Given the individualized nature of the PhD program, it is critical to recruit students whose interests match or complement those of faculty members.

3. Ensuring Student Academic Progress

It is our expectation that all students will maintain satisfactory performance and progress while enrolled in our degree programs. To ensure steady academic progress and overall success, the Faculty has adopted and implemented procedures, policies and requirements for undergraduate students, graduate students, and students requiring disability resources.

Undergraduate Students - Each course has a unique website that clearly states the Instructor's expectations and the responsibilities of the student. Common expectations and responsibilities include preparing for class by completing assigned readings, refraining from off-task activities during class, and demonstrating academic integrity and respect for others. Students who believe that they are having difficulty with course material are strongly encouraged to meet with the Instructor and/or Teaching Assistant outside of class. The Department encourages students who want to improve their written communication skills to visit the UW online resource, "Ask Betty" for excellent skills and strategies (<http://depts.washington.edu/engl/askbetty/>). Finally, the Department employs a full-time Undergraduate Program Advisor to monitor progress, counsel and support all students in this academic program.

Graduate Students - Students are provided regular feedback about their progress in achieving expected knowledge. The Speech-Language Pathology Faculty and the Audiology Faculty meet quarterly to review the progress of their respective students. Instructors from both didactic and clinical courses summarize student progress as outlined in the Department's "Graduate Student Guide". Any student identified as a "student of concern" meets with the Graduate Program Coordinator to discuss problematic areas of knowledge, preparation and/or performance. In addition, a Student Progress Committee implements and monitors a specific "plan of improvement" to assist the student in returning to satisfactory status. At the end of each applicable quarter, the Student Progress Committee reports back to the Faculty and the Graduate Program Coordinator with updates on the student's progress and remediation plan. This plan is also maintained in the student's academic record, with a copy sent to the Graduate School.

Students Requiring Disability Resources - The Department is fully committed to providing reasonable accommodations and services for qualified students with documented disabilities. The Department works closely with the UW Disability Resource for Students Office in determining appropriate and effective accommodations. This close relationship has been effective in ensuring that students with disabilities have equal access to learn and demonstrate their knowledge. Each course website informs students how to request academic accommodation due to a disability (<http://www.washington.edu/students/drs/>).

4. Preparation for Academic and Professional Success

The department uses considerable faculty and staff support to ensure the success of its students as they transition to the next phases of their academic and/or professional lives. All students in the department are provided with regular advising through the Office of Student Services, as well as faculty advising for those students engaged in research activities. Advisors communicate with students frequently to ensure they are progressing through their program satisfactorily and provide guidance in planning their overall program and career goals.

Because we offer three clinical graduate programs and two undergraduate programs that are focused on preparing students for professional careers as speech-language pathologists and audiologists, much of our curriculum, advisor, and faculty time is focused on professional preparation and topics such as practice settings, interviewing, licensure, credentialing through OSPI, professional certification through ASHA, the national Praxis examinations, code of ethics, etc. For our clinical graduate programs in particular, we offer a series of Professional Seminars that focus on professional preparation and relevant topics to help them plan and prepare for professional practice.

At the PhD level, the program is inherently designed such that students are supported and mentored closely by faculty so they can find employment as researchers and teachers in university, clinical, or industrial settings. Students engage in academic coursework, research, and teaching. Students present their research quarterly at weekly Doctoral Research Forum and are engaged early on in presenting at key conferences and workshops. The department makes every effort to guarantee financial support to PhD students as teaching or research assistants—“graduate service appointees” — during the academic year, as long as they make adequate progress in the program with an established mentor. The department assumes all tuition-related costs, and most fees. PhD students also receive a monthly stipend and Graduate Appointee health insurance.

In terms of employment, the department provides undergraduate and graduate students with multiple opportunities to explore opportunities throughout the year, including:

- Annual Public School Fair held by the department each February. Students meet and interview with school districts, interact with special panels and participate in talks given by district professionals
- Annual Rehab Fair held in collaboration with the UW Department of Rehabilitation Medicine.
- Community placements where graduate students have multiple quarters of community-based clinical experiences in which they can network and interact with prospective employers
- Department managed job board of employment opportunities

PART A: BACKGROUND INFORMATION

Section III: Scholarly Impact

A. Impact of faculty research

Our research mission is driven by the excellent productivity and national/international recognition of our faculty, in their publishing of research articles and books, and their outstanding level of success in extra-mural funding. In our complex and diverse field, 13 of our 17 professorial faculty are PIs on NIH, NSF, VA or foundation grants. Our faculty members are invited to speak at universities throughout the world, serve on editorial boards of the most prestigious journals in the field and hold offices in professional organizations.

Excellence in research translates into the mentoring of graduate students where departmental scientists extend their teaching to the laboratory and the direction of theses and dissertations. Professor Lesley Olswang was awarded the University of Washington Marsha Landolt Distinguished Graduate Mentor Award in 2004.

Four (out of many) examples of national and international impact are as follows:

1. Patricia Kuhl, Bezos Endowed Chair in Early Childhood Learning, received the prestigious Gold Medal from the Acoustical Society of America in 2008. The Gold Medal is a life-time achievement award that is presented annually to an individual whose contributions to the field of acoustics have been unusually distinguished. Dr. Kuhl has been recognized for her contributions to understanding how children acquire spoken language. In 2010 Dr. Kuhl was elected to the National Academy of Sciences.
2. Faculty member, Research Assistant Professor of child language and genetics Beate Peter, has developed a unique program of research, and has received NIH funding for studies into the molecular genetics of speech sound disorders, an area of research carried on in only one or two labs in the country. Outcomes of these studies will have profound impact on preventative and early intervention for infants at genetic risk for speech sound disorders.
3. The work of Ludo Max, Associate Professor of speech science, examines neural control and sensorimotor mechanism in stuttering. Further, his studies in the neural underpinnings of stuttering behavior in children has widespread impact in the field of stuttering at both the clinical and basic science level.
4. Lynne Werner, Professor of hearing science, is arguably the leading expert in the development of hearing in humans as well as in infant psychoacoustics, has had her NIH-R01 grant, "Development of Frequency Resolution in Infancy" continuously funded for 30 years. A clear testimony to her outstanding and continuously innovative research program.

B. Student Accomplishments

Undergraduate

Over the past five years nearly 100 undergraduate students have been actively involved in research in our department. Only students involved in hands-on research in an active laboratory and an identified mentor are included in this total. We have had six Mary Gates Scholars over the past decade working in various areas ranging from brain plasticity to neural/sensorimotor mechanism in stuttering to studies in spatial hearing. Each year in May, the department sponsors an Honors Colloquium in which all students in the Honors Program present their research in front of the faculty, students, family and friends. These same students, and others, also participate in the UW Undergraduate Research Symposium in Mary Gates Hall.

Graduate Students

Our graduate students are the recipients of many prestigious awards and fellowships. Over the past five years three students have received F-30 NIH individual pre-doctoral NRSA Fellowships for Au.D./PhD. work, and 18 have received F-31 individual pre-doctoral National Research Service Awards.

Local awards have included The Graduate Opportunities and Minority Achievement Program 9-month Research Assistantship (4 in the past five years), both the Audiology and Speech Language Pathology programs have consistently been awarded funding through the Graduate School Top Scholar program (average 3 per year), as well as departmental scholarships from Endowed Funds.

Students in the Au.D. program have a requirement for a research project during their program. Each student works with a faculty mentor to design and execute a research project that culminates in an oral defense and written paper. Each student's work should demonstrate a firm grasp of the problems in a particular area of study. Some examples include: studying ototoxicity in zebra fish, estimating noise levels coming from the personal media players of college students, as well as examining the effects of auditory training on brain activity.

Our graduate students present many papers at conferences. These are frequently deemed sufficiently significant to win awards from the NIH for Student Travel Awards. The Olswang Endowed Fund for Graduate Student Travel also awards a significant number of travel awards each year. For any travel award, students are required to be lead author on a scientific paper. Each year we have 20-25 students receiving various support to present their work at scientific meetings.

Our graduate students have also made an impact through outreach activities in which they spend time in the community working with K-12 students and inspiring many young people (in particular young women) to consider science as a career.

C. Strategic Relevance to Societal Issues

The Department of Speech and Hearing Sciences at the University of Washington is anchored by concern for disabilities of individual human communication, related normal and abnormal

processes, and appropriate pathways to remediation. An estimated 16% of the population has some degree of hearing, speech or language impairment. When severe, such impairment can be devastating to human development and adjustment. According to the National Institute on Deafness and Other Communication Disorders (NIDCD) approximately 25% of the working population in the U.S. have jobs that require voice use. Among adults over age 65, the prevalence of communicative disabilities associated with hearing and speech impairments is estimated to be well over 35%. Currently, about 13.1% (35 million) of the nation's population is over age 65. This number is expected to increase in the years to come. Coupled with this is the rapid growth of another "at-risk" segment of the population, minorities and the poor. The zero-to-three-year-old population is also an at-risk sector, and recent federal legislation has authorized the provision of services for early identification and remediation of problems within this group. Together, societal changes, recognition of needs, and related legislation puts the University of Washington Department of Speech and Hearing Sciences at the forefront of services, education and research in the speech and hearing sciences.

D. Collaborative and Interdisciplinary Efforts

A primary mission of the Department of Speech and Hearing Sciences is the maintenance and expansion of interdisciplinary collaborations across campus. The department is committed to creating strong collaborative partnerships with those who share our vision of basic research in speech, language and hearing and, importantly, in improving the quality of life for individuals affected by communication disorders. Given the centrality of communication for learning, educational success and socio-emotional well-being, SPHSC is uniquely positioned to team with those who desire to improve our educational system. The following is a summary of collaborations across campus.

Center on Human Development and Disability

The Center on Human Development and Disability (CHDD) is one of twelve Eunice Kennedy Shriver Intellectual and Developmental Disabilities Research Centers (IDDRCs) in the United States. The CHDD is committed to reducing both the incidence and the impact of developmental disabilities through the pursuit of new knowledge. In addition, CHDD educates and trains professionals and creates exemplary programs that can be used as models by communities to meet the needs of people with disabilities.

SPHSC has been collaborating with the *Early Intervention Task Force* at the CHDD in developing a proposal for an interdisciplinary undergraduate major on early childhood development. The focus of the major would be on interdisciplinary studies related to the basic and applied sciences of child development, family, and cultural contexts for child rearing and schooling. An undergraduate majoring in Early Childhood and Family Studies would follow one of two tracks: 1) preparation for employment in human services following completion of the bachelor's degree; 2) preparation for admission to a graduate program in an allied discipline (e.g., Speech and Hearing Sciences, Nursing, Occupational Therapy, Psychology).

SPHSC continues to enjoy a productive relationship with the University Center for Excellence in Developmental Disabilities (UCEDD) at the CHDD. The four core functions of the UCEDD include clinical service, interdisciplinary training of health care

professionals, applied research in the area of developmental disabilities and community outreach. As these core functions are consonant with the general goals of SPHSC, several SPHSC faculty hold clinical appointments and laboratory space in the CHDD. In addition, graduate students in speech-language pathology and audiology fulfill part of their curriculum requirements in SPHSC during clinical rotations at the CHDD.

Special Education (College of Education)

SPHSC and Special Education share a long-standing commitment of serving communicatively impaired individuals and their families. An important goal of both disciplines is to develop a deeper understanding of the nature of social communication and the clinical processes of assessment and treatment. Faculty and graduate students from SPHSC and Special Education conduct research into social communication in the world-renowned Experimental Education Unit (EEU) – a model demonstration school on the UW campus that provides integrated classrooms for nearly 200 infants, toddlers and young children with disabilities and their typically developing peers.

Rehabilitation Medicine

The mission of Rehabilitation Medicine, in the School of Medicine, is to restore function and independence brought about by illness or injury, or of congenital origin. Physicians, nurses and other health care professionals work with each patient and family to achieve the best possible outcome. Rehabilitation Medicine is a model discipline for demonstrating the medical-behavioral approach to therapeutic intervention. SPHSC faculty regularly contribute to the Assistive Technology Summer Institute funded through Rehabilitation Medicine.

Virginia Merrill Bloedel Hearing Research Center

The Bloedel Center brings together an interdisciplinary group of investigators to study hearing, hearing loss, and related communicative disorders. The Center is a focal point among laboratory and clinical scientists to facilitate the sharing of ideas and information for the collective advancement of auditory science and patient care. Indeed, the Bloedel Center is the largest hearing research group in the United States. Although the Center is administered through the Department of Otolaryngology (Head and Neck Surgery) in the School of Medicine, the Bloedel Center has a strong bond with the College of Arts and Sciences and Speech and Hearing Sciences. Ten professorial and lecturer faculty in SPHSC are Bloedel Affiliates and one departmental member are on the Affiliate Liaison Committee and one is on the Board of Directors. Of the seven Bloedel Scholars, 5 have been faculty members in Speech and Hearing Sciences (Kuhl, Burns, Werner, Souza, Tremblay).

NIH-NIDCD P-30 Research Core Center

One of the major collaborative efforts between Speech and Hearing Science and other departments was the Hearing Development Program Project Grant that ran from 1988 to 1998. This research project was directed by Edwin Rubel, Department of Otolaryngology. The individual grants in the program project were headed by a number of faculty in Speech and Hearing Sciences. Following that successful project, an NIH-NIDCD P-30 university wide core grant was funded (again with Edwin Rubel as the P-30

P.I.) and has been in place for the past 10 years. This grant has four cores: Human Subjects, Computer Resources, Imaging and Microscopy and Mouse Genetics. Fourteen Speech and Hearing Sciences faculty benefit from the support provided by this Research Core Center.

Department of Psychology

Links with the Department of Psychology include (1) the Auditory Neuroscience Training Grant regularly funding Ph.D. students in Speech and Hearing; (2) Ellen Covey, Assistant Professor of Psychology, teaching one section of SPHSC 461 (Hearing Science) for several years; (3) Lecturer in Psychology, Patricia Loesche, teaching SPHSC 504 (Research Methods in SPHSC) numerous times in the past 10 years; (4) research collaborations between faculty of the two departments; and (5) Adjunct appointments for faculty in both Departments (i.e., some of our faculty have appointments in Psychology and vice versa).

The Institute for Learning and Brain Sciences (P. Kuhl, Co-Director)

The Institute for Learning and Brain Sciences (ILABS) is a University of Washington interdisciplinary research center whose mission is to foster cutting-edge discoveries in early brain and behavioral development and transfer that knowledge to parents, policymakers, educators, business people, and the media. The Institute draws its 14 research faculty from departments across five Colleges/Schools: Arts and Sciences, Medicine, Engineering, Education, and Nursing. Faculty members of ILABS will have tenure-line appointments in their home departments but will be funded by the College of Arts and Sciences for research in ILABS. In addition, research faculty will have access to (a) laboratory space, (b) core services, (c) brain imaging equipment, (d) equipment monies, and (e) graduate student support. Assistant Professor Adrian KC Lee is such an appointment between ILABS and the department.

ILABS' partnerships with departments such as Speech and Hearing enhance the probability that UW departments can attract the very best faculty and graduate students. The research facility for ILABS investigators will house state-of-the-art brain imaging equipment including functional magnetic resonance imaging (fMRI), magnetoencephalography (MEG) and event-related potential (ERP). ILABS' emphasis on neuroscience is particularly attractive for faculty in SPHSC as methods for analysis of language processing and production evolve, our faculty and students will have access to the latest technology and findings.

Other

Professor Kelly Tremblay has a long-standing collaboration with investigators at the Rotman Research Institute (at the University of Toronto), a center of excellence for aging where MEG facilities are available for research. Au.D. and Ph.D. students have benefited from this collaboration by learning about the procedures and outcomes, and/or contributing to the experiments and publications.

Associate Professor Ludo Max has a long-standing collaboration with colleagues at McGill University in Montreal and Haskins Lab, New Haven Connecticut.

E. Recruitment and Support of Faculty from Underrepresented Groups

Faculty

Assistant Professor Jessica Sullivan joined the faculty in September 2010. Dr. Sullivan is an African-American woman who has been trained by some of the leaders in the field at one of the top 5 institutions in the country. Not only are female scientists underrepresented in the field of hearing science, according to the ADVANCE resources on campus, Dr. Sullivan is the first African-American female in a tenure track position within the Division of Natural Sciences. Funded from our own fee-based revenues, this hire is a visible example of the Department of Speech and Hearing Science's commitment to diversity and her presence on campus also helps reinforce and retain underrepresented cultures on campus. Advancing diversity within our department has been a long standing goal.

Dr. Amber Franklin was added to our faculty as an acting assistant professor in January 2010 (recently hired into a tenure line position elsewhere). Dr. Franklin is a woman of color who brought diversity to the UW Speech and Hearing Clinic. Her work in accent modification and English language articulation/pronunciation served the UW's diverse population of faculty, students and staff for individuals who wish to focus on their dialects in an effort to improve speech intelligibility.

Dr. Adrian K.C. Lee has joined the faculty in Speech and Hearing Sciences on January 1, 2011. Dr. Lee was born in China to Chinese parents and has studied in various universities around the world. He comes to us from his post-doc at Harvard University. This hire brings added diversity to this department as well as the UW and greatly increases the interdisciplinary research on language and brain on campus and greatly enhances the work in Speech and Hearing Sciences on magnetoencephalography (MEG) and auditory neuroscience.

Students

In 2006, a faculty meeting was held to discuss diversity and finalize the Speech and Hearing Sciences Diversity Plan for 2007-2010. To facilitate the discussion, a list of ideas for recruiting underrepresented graduate students was provided by the department's Diversity Committee and the Graduate Program Coordinator. The lengthy discussion culminated in a strong sense of commitment to more actively recruit minority and underrepresented students in SPHSC.

The SPHSC faculty appreciate the need for recruitment to occur on both a local as well as national level. Locally, we are more pro-active in recruiting underrepresented undergraduates who are taking courses in our own department (specifically SPHSC 100, 250, and 261). Further, we continue to develop links with other programs across the UW-Seattle campus (particularly psychology and linguistics) and the UW-branch campuses (Bothell and Tacoma) in an effort to market information about our major. We firmly believe personal contact by individual faculty members is the way to make this recruitment work. On a national level, we are establishing partnerships with other universities who have large undergraduate programs and who attract students from underrepresented groups. We believe that a major challenge for recruitment on a

national level is our geographical location. While students from underrepresented groups may be interested in our graduate program, their level of discomfort in moving away from their families to the Pacific Northwest, often keeps them from accepting our offer.

With this first-hand experience as a guide, we have focused our efforts on recruiting three underrepresented populations: students from Native American, Pacific Island, and Hispanic groups. Over the last three years, we have concentrated the development of partnerships with the states of Alaska, Hawaii, California, Arizona, and New Mexico. We have been actively involved with the ASHA Office of Multicultural Affairs in identifying institutions of higher education (community colleges, colleges, universities), as well as regional professional organizations to assist us in creating partnerships that will facilitate our recruitment efforts. During 2007-2008, the SPHSC Cultural Diversity Committee drafted a blueprint for our local and national outreach efforts. As part of this plan, we regularly update our department Web to highlight opportunities on campus, including funding, with respect to minority and underrepresented potential applicants.

The SPHSC Faculty annually evaluates current teaching and mentoring strategies with an aim towards retention of current students from underrepresented groups. Additionally, the Graduate Program Coordinator meets quarterly with current students to solicit their suggestions and address any concerns. Importantly, as mentioned above, we have recruited an African-American colleague to join our faculty in 2010. Still another retention effort will be to assign students in our graduate Audiology and Speech-Language Pathology programs to clinical internship placements that have significant populations from culturally diverse backgrounds. Finally, as part of our retention efforts, we have made strong efforts to develop an atmosphere of inclusiveness.

The SPHSC department is committed to recruiting intellectually capable, diverse graduate students. To this commitment, the department provides equivalent funding to any minority and underrepresented student, recruited with a GO-MAP assistantship, wishing to pursue a career in research, teaching or the clinical practice of speech-language pathology/audiology. Over the last several years, our department has cultivated several streams of financial support that we use in conjunction with GO-MAP funding to provide ongoing aid during a student's graduate program. These awards include a dedicated TA assistantship, a RA position in a laboratory of a funded researcher, a department scholarship funded by an alumnus and, access to a foundation scholarship for minority students from the American Speech-Language-Hearing Association.

F. Support of Junior Faculty

Each junior faculty member is assigned an advisory committee of two or three senior faculty. The senior faculty members will eventually serve as the tenure/promotion committee, but in the early years of a new appointment, their role is to meet with the junior faculty member regularly (twice per year) to review progress and to offer advice for further progress. In addition, committee members make themselves available to assist the junior faculty member in whatever way possible (e.g., reading and offering comments on manuscripts and grant applications; advising on issues related to funding or research methodology; observing and evaluating teaching). A junior faculty member's teaching and service loads are adjusted so they can devote

their time to getting their research programs off the ground and at the same time prepare high-quality course materials. This system has been very successful in enhancing the professional development of junior faculty members and preparing them for successful careers in research and teaching.

PART A: BACKGROUND INFORMATION

Section IV: Future Directions

Where the Department of Speech and Hearing Sciences is headed

1. Faculty

The Department of Speech and Hearing Sciences is committed to maintaining and further developing its outstanding faculty and their collective intellectual resources. Facing the loss of a significant number of faculty over the past 5 years, the department must now move past the recent history of faculty reduction and focus on the future with the faculty we have and those we will acquire in the future. Our best strategy is to position ourselves to make outstanding tenure-line professorial hires when the opportunity presents. The department has built its reputation by hiring excellent junior faculty to sustain the breadth of its research and teaching program, while moving it into new cutting-edge research areas. We believe well-chosen additions to our junior faculty are the single most important means through which the department can maintain its position of leadership in the field of speech, language and hearing sciences. We have made outstanding recent hires in Assistant Professor Jessica Sullivan in the area of auditory rehabilitation and Assistant Professor Adrian KC Lee in brain mapping and neuroimaging. These areas are helping to build collaborations between ILABS, Electrical Engineering, the Bloedel Center and the department.

2. Clinical Education

One obvious goal for the Department of Speech and Hearing Sciences, given the acute shortage of speech-language pathologists and audiologists regionally and nationally, is to successfully educate outstanding speech pathologists and audiologists. This, along with advancing knowledge in the field, is clearly one of the most important things we do. We take it very seriously and are constantly scrutinizing and adjusting that process. Further, we will continue to take advantage of the unique features of the department's programs in speech pathology and audiology:

1. This department is housed at one of the of the premier research institutions in the country.
2. The department exists side-by-side with top medical centers, children's hospitals and research institutes in one of the most desirable regional locations in the country.
3. The department has extensive affiliations with clinical intern and extern sites locally, regionally, and nationally.
4. This department commitment to basic and applied research, clinical education, clinical service provision, leadership, and the dissemination of knowledge.

3. Program Costs

Our current fee-based programs have created a reliance on income generated each year for funding of professorial faculty, clinical education and staff in order to carry out these programs. This funding situation puts pressure on the three fee-based programs to maintain specific enrollment numbers in order to be sustainable. Because of the limited UW Speech

and Hearing Clinic clinical space and the steady reduction in professorial faculty numbers, the current number of students admitted into our program must be capped each year. However, our increasing reliance on these funds means that any increase in revenue must result from increased tuition rather than from increased numbers. Our concern is that the department's programs have been reduced in terms of FTEs when compared to other programs in the nation, and to grow the department would involve either raising tuition fees or increasing the number of students being admitted each year. Both of these options have the potential for diminishing returns by pricing ourselves outside a competitive tuition range, and/or being unable to handle additional students in our departmental clinical education environment or in clinical out-placements around the city and region. For these reasons, future directions in the administration of the department must focus on reducing overall cost to students through out of state tuition waivers, endowed scholarships, and examination of program efficiencies and redundancies.

4. Infrastructure and Resources

Our department faces some of the same challenges that it faced ten years ago: space, graduate student support, and resources. New challenges have also surfaced: loss of professorial faculty and greater reliance on fee-based programs. Our challenges are linked quite directly to our need for additional resources.

Infrastructure

The numbers of undergraduates, postbaccalaureate and graduates have increased in the past ten years, but we have gained no additional space. Consequently, one of the most pressing challenges we face is that of space and infrastructure. As described in our Unit Defined Questions, the physical condition of Eagleson Hall (built in 1922 and marginally remodeled in 1979) imposes a daily stress on the faculty and staff and impedes the function of the department and the effectiveness of both the academic and research missions. Further, the greatest pressures are in the Speech and Hearing Clinic and the department's research labs, designed more than 30 years ago for research efforts that are, in some cases, no longer the state of science. The department will continue to advocate for office, laboratory and clinical space when such space becomes available on campus. Improvements in these areas will have future positive impact on our ability to recruit top faculty and graduate students to our programs.

Resources

The Department of Speech and Hearing Sciences at the University of Washington has experienced a remarkably successful decade. Interest in our undergraduate major and Postbaccalaureate program grows yearly. Demand for our graduate programs in speech pathology and audiology is at record high levels; we are generating more graduate degrees annually than ever before in our history and more than most other Speech and Hearing Sciences departments in the nation. These programs are both rated as #3 in the nation (up from 5 in each program in the past decade) and the Chronicles of Higher Education has the Department of Speech and Hearing Sciences ranked #2 on their most recent Faculty Productivity Index. Nearly every professorial faculty member has extramural funding. Our highly recognized contributions range from extraordinary work in the basic sciences to important, clinically-applied, studies with broad application to the habilitation and rehabilitation of individuals with speech, language and hearing disorders.

But there are challenges facing us as well. The institutionally provided budget that supports our faculty, TAs, and staff is not sufficient for the maintenance of these highly rated graduate programs. As described elsewhere in this document, reduction in institutionally funded professorial faculty has had an impact on faculty productivity and morale, increasing the risk of additional faculty departures. The faculty who teach clinically oriented graduate courses have too many courses to cover which leads to increased instructional burden and overwork burn-out. We risk not providing a nationally competitive student experience, putting our research program and the quality of graduate education in jeopardy.

We hope for a future of increased institutional support. Increases in UW tuition at all levels and the implementation of Activity Based Budgeting (ABB) for distribution of tuition revenue to the College provides the department with hope that institutional support will become ample instead of short and that vacant faculty positions will be restored, at least in part, to carry us into the future. We are asking the review committee to advise our administration on what is the proper level of centrally provided resources for Speech and Hearing Sciences under future circumstances of an increased flow of funds to the College. We have documented here a very significant shortfall in resources available to this academic unit to maintain a critical number of faculty to carry out our instructional mission. This circumstance is not uncommon at the UW and we acknowledge that our department has graduate clinical education programs that require specialized courses and supervision. This is the nature of our department. In our case, the needs of the department in terms of restoring faculty positions would not be overly costly and seemingly possible with the flow of funds through ABB that are likely to become available through ongoing tuition increases. We thank the committee for its consideration.

PART B: UNIT-DEFINED QUESTIONS

B1. Recruitment and Retention

B1.a Professorial Faculty

Can our department sustain itself following significant reductions in faculty?

Over the past five years, the Department of Speech and Hearing Sciences has lost six professorial faculty members to retirements (2), outside offers (1) and resignations (3). We have been able to gain approval for hiring in only one of these faculty openings (an additional hire is pending)*. For small department such as Speech and Hearing Sciences, the loss of 25% of our tenure-line professorial faculty in a five-year span has been devastating. The impact on remaining faculty is significant both in terms of workload and morale, which increases the risk of additional faculty departures. Further, the nature of our program (as well as our accreditation from the American Speech Language Hearing Association) calls for each of our courses at the undergraduate and graduate levels to be taught every year, regardless of our faculty numbers, putting an increased burden on this remaining faculty to provide this curriculum. This increased curricular burden comes at the expense of faculty research productivity. Without the restoration of these positions, the program is in danger of losing its accreditation and high national ranking.

** As of April 2013, this position has been successfully filled.*

B1.b Graduate Students:

Can the department continue to attract the top graduate students in Audiology and Speech-Language Pathology in the face of rising costs ?

One of our most basic goals in the Department of Speech and Hearing Sciences is attracting the best graduate students from across the country. We have one the largest graduate student enrollments per faculty count in the UW. This high enrollment primarily results from the fact that, in both Speech-Language Pathology and Audiology, entry into the profession requires a graduate degree. One of the issues currently facing the department is our difficulty in recruiting the best students from across the country because of high out-of-state tuition rates at the UW. This year we have over 400 graduate applications from across the country and around the world. Yet we anticipate that our ability to land the best and brightest of the out-of-state students will be limited by our inability to offer any tuition remission. This high out-of-state tuition rate is a disincentive for accepting offers to study in our department. We have programs that are viewed as highly unique and desirable but we have no ability to assist students in addressing the high costs of relocating to the UW.

To partially address this issue, we applied for, and were granted, membership in the Western Interstate Commission for Higher Education (WICHE) for our Doctor of Audiology Program. This consortium supports graduate and professional students from 15 participating western states by offsetting the non-resident tuition differential. In Autumn 2012, we applied for WICHE membership for our Core Speech-Language Pathology Program*. We have feedback from WICHE that our department's acceptance into this consortium is likely. Membership in WICHE is an important first step in our efforts to extend our department's reach and diversify the pool of

applicants to our graduate programs. Since our Audiology and Core Speech-Language Pathology Programs are tied to University of Washington resident and non-resident tuition rates, we will continue to focus on ways to reduce the overall cost of studying in Speech and Hearing Sciences at the UW. Graduate students from Washington State, of course, also benefit from this program when studying out of state in a participating WICHE-member program. This approach, however, only applies to students from these 15 western state and does not address program expense for other out of state students.

** The CoreSLP M.S. program was accepted inot the WICHE program on March 15, 2013.*

B2. Reshaping our Undergraduate Program and Preparation

Is the department meeting the needs of undergraduate students in preparing them for entry into a rapidly changing academic discipline?

The Department of Speech and Hearing Sciences is concerned with the processes and disorders of human communication. Our undergraduate program has been designed to provide students with foundational knowledge in the basics sciences of human communication in order to improve the quality of life for those directly affected by communication disorders across the lifespan. The curriculum is exemplary in its combination of basic sciences and clinical application, its implementation of experiential learning, its focus on education students to read and think critically, and its role in nurturing future researchers.

Our faculty remains firmly committed to these foundational values. Still, several recent developments have motivated us to begin rethinking, reassessing and, likely, reshaping our undergraduate program. The outcome of this process will be to continue to develop as a department with an innovative and balanced education of students interested in basic communicative sciences and/or clinical professions. Important new insights into hereditary underpinnings of speech and language disorders, the neurocognitive mechanisms associated with children who fail to acquire language, and the science of implementation will require us to reshape our curriculum into one that will transmit innovative and life-changing communication programs to education, mental health, employment and related human services. Equally important, changes in the professional standards for the Council on Academic Accreditation will affect our undergraduates who plan on pursuing professional careers as speech-language pathologists or audiologists, particularly our students in our highly regarded post-baccalaureate program.

B3. Implementing Discoveries & Disseminating Knowledge Through Partnerships

How will the department develop new partnerships within the community to advance the science of the discipline, make a meaningful impact in the lives of people with communication disorders, and extend our reach as educators and important contributors in the global health care arena?

Communication is one of the most important tools we have for getting along in life. Speech and Hearing Sciences is one of the most important disciplines for discovering valuable knowledge

for improving the quality of life for individuals whose impaired communication prevents them from fully participating in their worlds. Through scientific study of underlying mechanisms, processes, and structures of communication, our research programs have resulted in effective treatments and positive outcomes for the majority of individuals with impaired communication.

While the science behind communication and its disorders has generated powerful discoveries and evidence-based interventions, the science behind implementing these interventions is just emerging. Translating our discoveries into the context of the daily lives of individuals with communicative disorders will require collaborative partnerships with families and communities.

Since the primary mission of the University of Washington is to advance and disseminate knowledge that improves the quality of human life and achievement, we embrace the science of implementation that will transmit innovative and life-changing programs and practices for those with communication disorders into education, mental health, employment, and related human services.

For the future, we must extend our reach into our community to better advance the research and science of the discipline and make a difference in people's lives. We need to find ways to:

1. Become key players in national discussions pertaining to the research, assessment and treatment of a number of global health care issues (e.g., autism, stroke, head injury, etc.)
2. Increase our visibility as educators and leaders by making new inroads into continuing education and distance learning; using technology to extend our reach.
3. Disseminate knowledge and implement innovative and cutting edge therapies in effective ways through new and existing partnerships with community facilities and professionals.

B4. Developing Infrastructure and Resources for the Future

B4.a Physical Facilities:

Can our physical facility and infrastructure be brought up to current standards enjoyed by our peers?

The physical facilities for the Department of Speech and Hearing Sciences are out of date and likely beyond the capability of a renovation to resolve. The physical condition of Eagleson Hall (built in 1922 and marginally remodeled in 1979) imposes a daily stress on the faculty and staff and impedes the function of the department and the effectiveness of both the academic and research missions. The facilities of the UW Speech and Hearing Clinic as well as the department's research labs are over 30 years old. The research labs were designed for a type of science that the department, in many of its labs, has moved beyond. Recruitment of new faculty becomes very difficult in the face of below standard academic and research space. Feedback from our recent failed search cites our aging and cramped physical building, research space, and out of date technological infrastructure as one reason that dampens further interest in our department. Our ability to recruit graduate students is also hampered by our facilities. Each year, we generate interest from top applicants across the country only to see applicants accept offers from other programs with new facilities. In our own state, the department of Communication Sciences and Disorders at Western Washington University was provided with a new state of the art facility, opened in 2009, which doubled their previous space. A new building

that would consolidate our faculty offices, clinic, and research programs would be a logical way to address this critical issue.

B4.b Resources:

Can the department sustain itself under circumstances of diminished College support and greater reliance on fee-based programs?

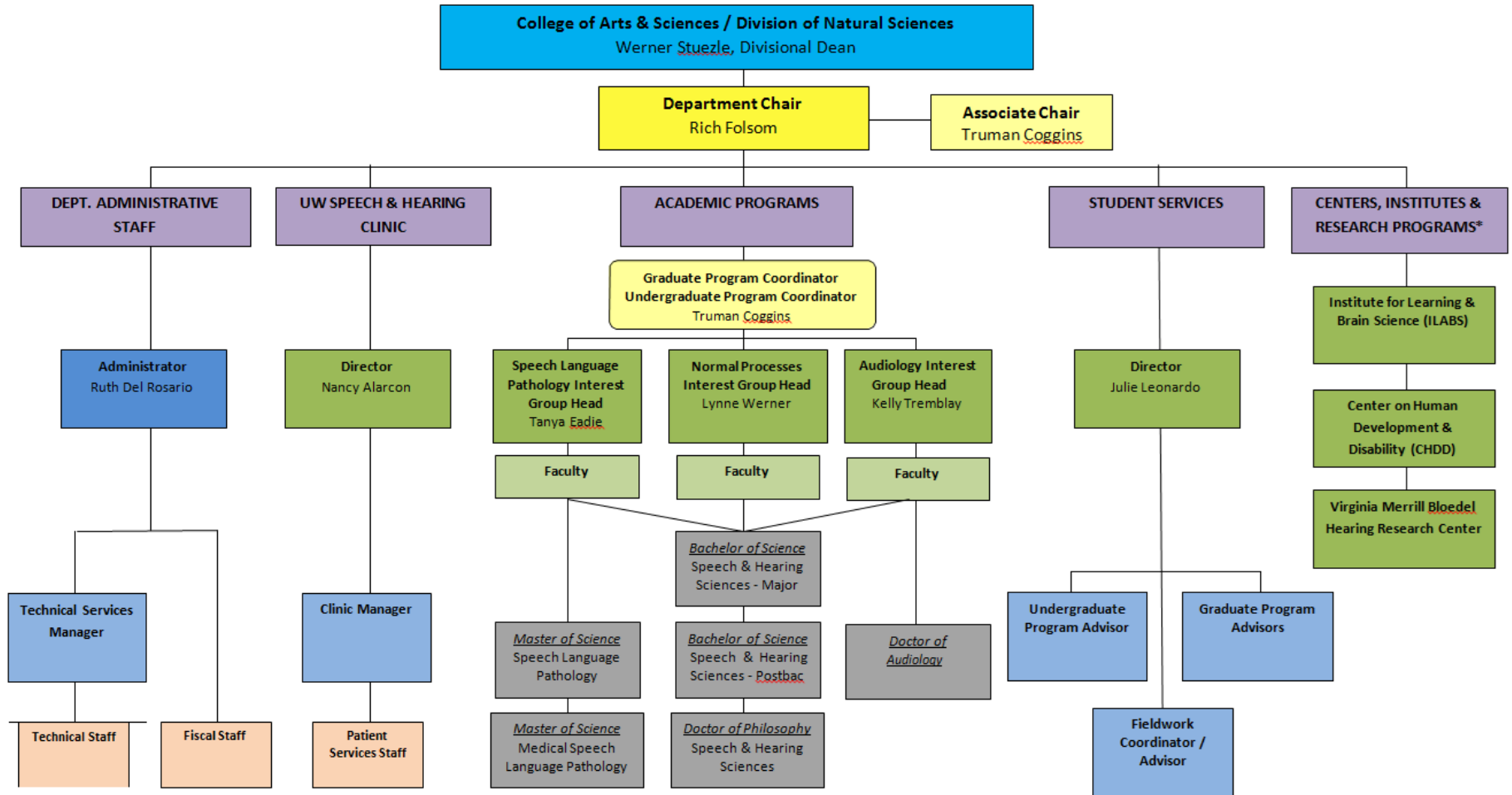
One important aspect of the Department of Speech and Hearing Sciences is that three of the six degree programs offered within the department are self-sustaining or fee-based. The Doctor of Audiology (Au.D.), Master of Science in Medical Speech-Language Pathology (MedSLP) and Post-baccalaureate (B.S.) degree were all created in partnership with UW Professional and Continuing Education in 2006. Each of these programs has allowed the department to extend its reach in responding to student/marketplace demand and in the case of the Au.D. degree, allowed us to address the national change in educational standards for the audiology profession (doctoral entry to the profession).

Also, the launching of these programs has brought additional revenue into the Department of Speech and Hearing Sciences as well as the College of Arts and Sciences. Further, these fee-based programs have allowed us to enhance our faculty and student composition and to solidify our standing nationally. Specifically, the department derives revenue from these fee-based programs and this revenue has allowed an expansion our faculty and research base, and provided funding for faculty development.

However, these fee-based programs were originally designed to create additional innovative academic programming and to allow us to push forward with opportunities to develop cutting edge educational and research curricula. Instead, with budget cuts at the UW and subsequent reduction in faculty numbers, we are now dependent on these funds to simply maintain minimum faculty numbers to carry out our basic programs. These fee-based programs have thus created a reliance on student-generated revenues that we cannot now live without. Further, we have created the incorrect impression in our College and the upper UW administration that we have the resources to offset the significant reduction in faculty numbers that the department has sustained. This is not true. We have, in fact, used some of these resources to bring faculty to our department, but we are now at the limit of these financial resources in terms of any additional faculty commitments. Further, the absence of permission to move forward with any but one of our faculty search requests creates the impression in the department that we are not supported and are expected to pay our own way.

PART C: APPENDICES

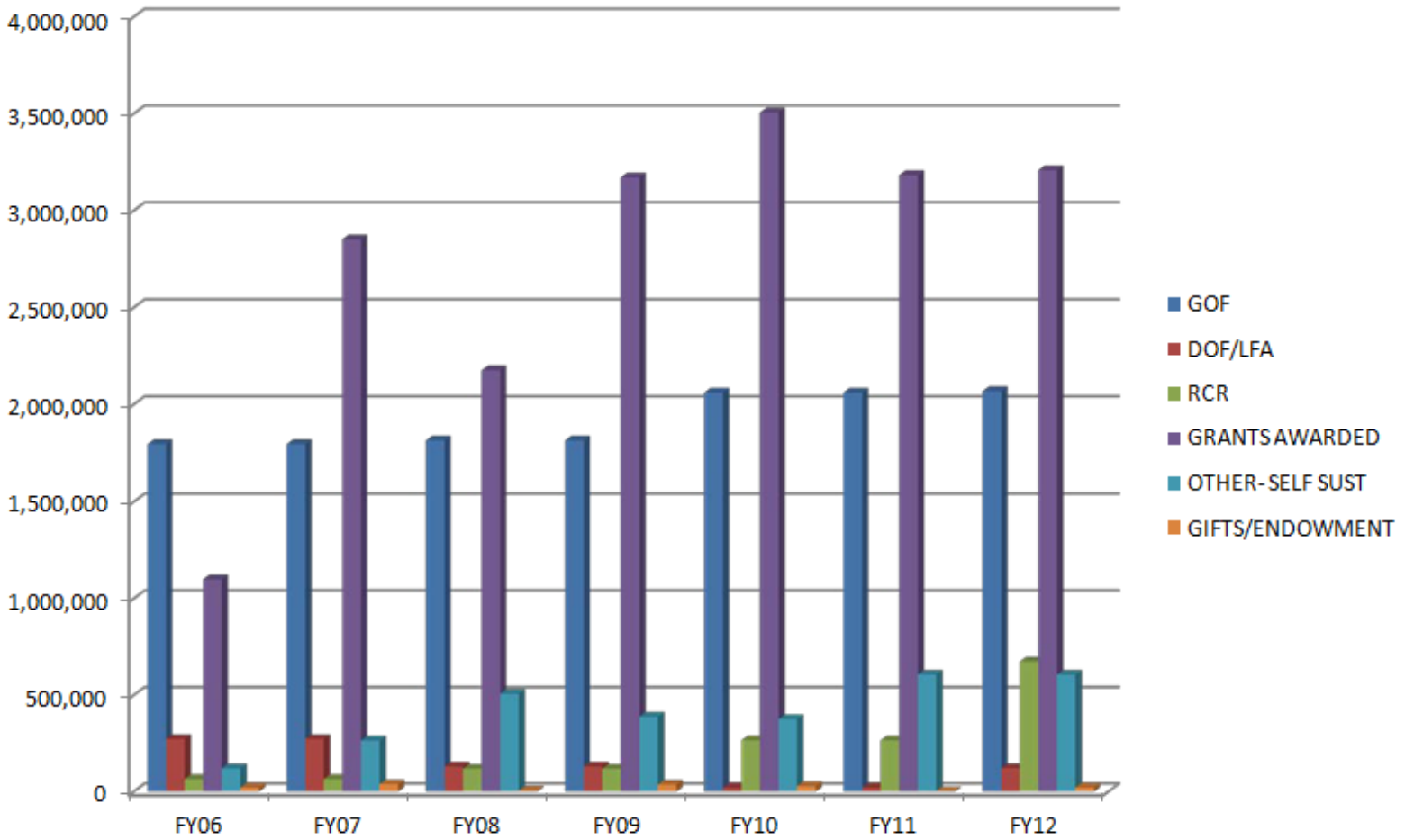
Appendix A: Organizational Chart / Department of Speech and Hearing Sciences



PART C: APPENDICES

Appendix B: Budget Summary

<u>FUNDING SOURCE:</u>	<u>FY06</u>	<u>FY07</u>	<u>FY08</u>	<u>FY09</u>	<u>FY10</u>	<u>FY11</u>	<u>FY12</u>	<u>FY13*</u>
GOF	1,798,594	1,798,594	1,817,412	1,817,412	2,061,716	2,061,716	2,068,956	2,046,245
DOF/LFA	273,145	273,145	130,509	130,509	20,711	20,711	123,050	0
RCR	66,007	66,007	120,047	120,047	266,386	266,386	674,614	301,022
GRANTS AWARDED	1,100,482	2,852,445	2,176,451	3,171,576	3,507,120	3,183,510	3,208,967	0
OTHER- SELF SUST	121,477	265,182	507,282	389,135	376,586	606,578	606,298	592,997
GIFTS/ENDOWMENT	20,987	39,599	5,537	37,690	29,418	4,054	22,441	17,011



**Note: FY'13 not available yet. Fiscal year is a one year period extending from July 1st through the next June 30th.*

Appendix B: Budget Summary

SPEECH AND HEARING SCIENCES **FUNDING SUMMARY** BY FISCAL YEAR
(Fiscal year is a one year period extending from July 1st through the next June 30th.)

SOURCES OF FUNDS

FISCAL YEAR:	<u>FY08</u>	<u>FY09</u>	<u>FY10</u>	<u>FY11</u>	<u>FY12</u>	<u>FY13</u>
GOF	\$1,947,921	\$1,947,921	\$2,082,427	\$2,082,427	\$2,154,889	\$2,226,864
RCR	\$120,047	\$120,047	\$266,386	\$266,386	\$674,614	\$301,022
PCE	\$224,457	\$74,795	\$187,467	\$232,265	\$442,565	\$337,415
GIFT & ENDOWMENT	\$5,537	\$37,690	\$29,418	\$4,054	\$22,441	\$34,906
OTHER SOURCES OF FUNDS	\$282,824	\$316,988	\$376,499	\$419,110	\$374,033	\$313,550
TOTAL FUNDING	\$2,580,787	\$2,497,441	\$2,942,197	\$3,004,242	\$3,668,542	\$3,213,757

SPEECH AND HEARING SCIENCES **EXPENSE SUMMARY** BY FISCAL YEAR
(Fiscal year is a one year period extending from July 1st through the next June 30th.)

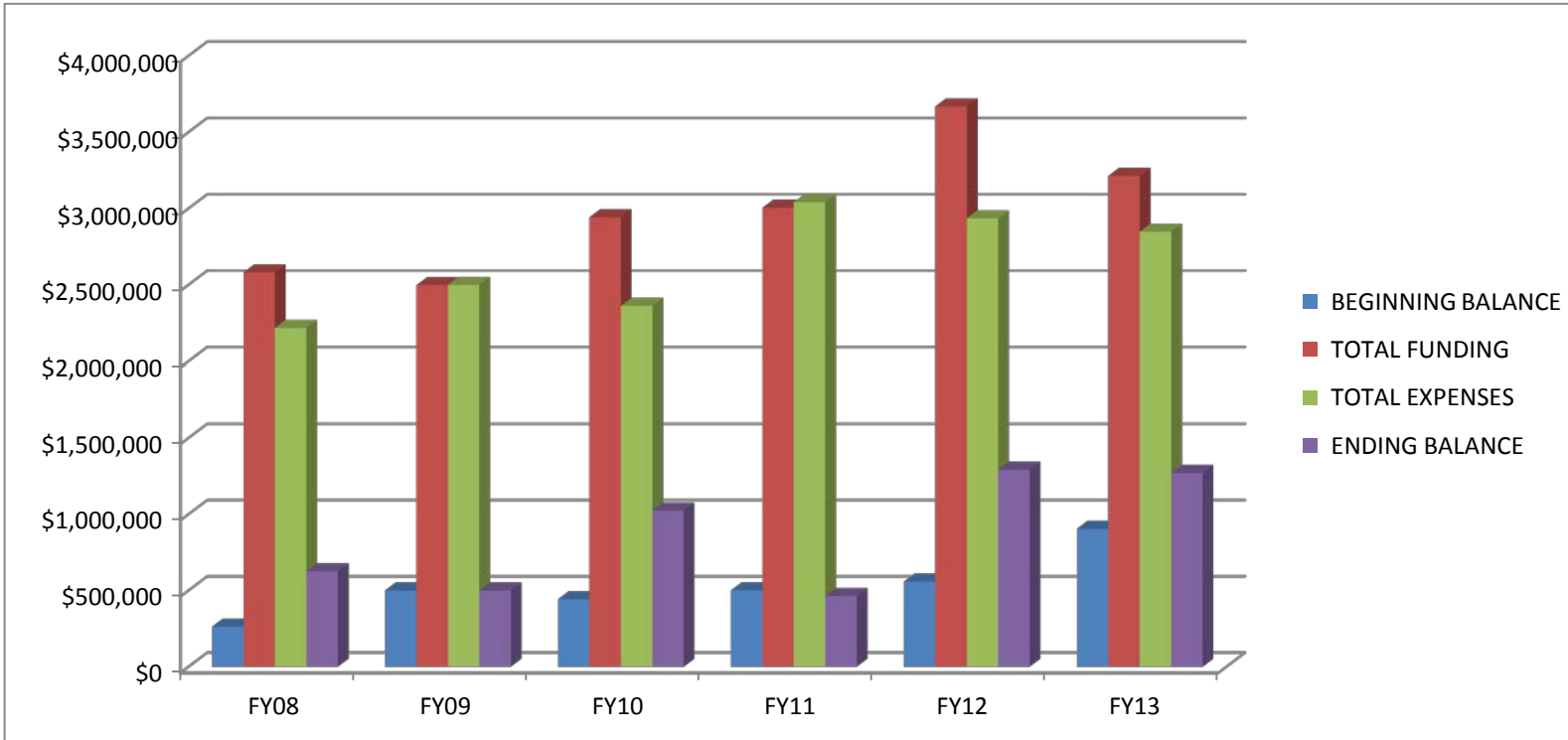
SOURCES OF FUNDS

FISCAL YEAR:	<u>FY08</u>	<u>FY09</u>	<u>FY10</u>	<u>FY11</u>	<u>FY12</u>	<u>FY13</u>
GOF	\$1,894,069	\$1,951,04	\$1,788,691	\$2,303,848	\$2,233,885	\$2,147,868
RCR	\$47,805	\$60,388	\$38,168	\$139,826	\$207,526	\$256,457
PCE	\$40,635	\$178,582	\$93,202	\$137,587	\$68,810	\$163,969
GIFT & ENDOWMENT	\$9,438	\$11,450	\$16,719	\$15,217	\$18,295	\$15,846
OTHER SOURCES OF FUNDS	\$225,426	\$297,036	\$424,920	\$444,748	\$406,530	\$263,650
TOTAL EXPENSES	\$2,217,374	\$2,498,50	\$2,361,700	\$3,041,225	\$2,935,045	\$2,847,790

SUMMARY

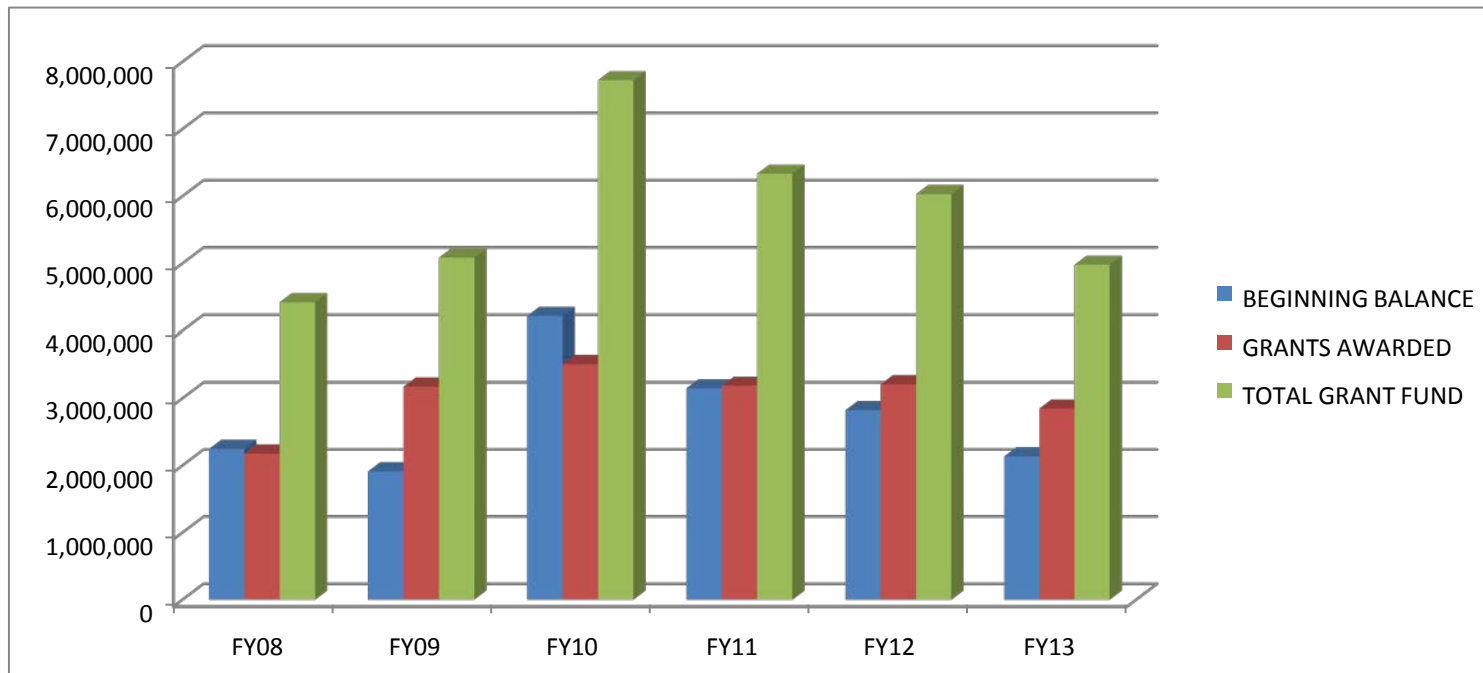
FISCAL YEAR:	<u>FY08</u>	<u>FY09</u>	<u>FY10</u>	<u>FY11</u>	<u>FY12</u>	<u>FY13</u>
BEGINNING BALANCE	\$262,951	\$500,300	\$442,673	\$501,217	\$559,094	\$904,499
TOTAL FUNDING	\$2,580,787	\$2,497,441	\$2,942,197	\$3,004,242	\$3,668,542	\$3,213,757
TOTAL EXPENSES	\$2,217,374	\$2,498,506	\$2,361,700	\$3,041,225	\$2,935,045	\$2,847,790
ENDING BALANCE	\$626,364	\$499,235	\$1,023,171	\$464,234	\$1,292,591	\$1,270,466

Appendix B: Budget Summary Continuation



Appendix B: Budget Summary Continuation

GRANTS & CONTRACTS:	FISCAL YEAR:	<u>FY08</u>	<u>FY09</u>	<u>FY10</u>	<u>FY11</u>	<u>FY12</u>	<u>FY13</u>
	BEGINNING BALANCE	2,244,018	1,910,782	4,217,001	3,147,272	2,821,182	2,132,188
	GRANTS AWARDED	\$2,176,451	\$3,171,576	\$3,507,120	\$3,183,510	\$3,208,967	\$2,845,060
	TOTAL GRANT FUNDS	\$4,420,469	\$5,082,358	\$7,724,121	\$6,330,782	\$6,030,149	\$4,977,248



PART C: APPENDICES

Appendix C: Information about Faculty

Department of Speech and Hearing Sciences Faculty Academic Year 2012-2013

Active Faculty During 2012-2013 (CVs Follow)

Emeritus Professors

- Olswang, Lesley B., *Language, Clinical Processes*, lolswang@uw.edu

Professors

- Coggins, Truman E., *Child Language Disorders*, tec@uw.edu
- Folsom, Richard C., *Audiology; Auditory Evoked Potentials*, rfolsom@uw.edu
- Kuhl, Patricia K., *Speech Perception*, pkkuhl@uw.edu
- Tremblay, Kelly, *Adult Audiology: Electrophysiology*, tremblay@uw.edu
- Werner, Lynne A., *Infant Auditory Development*, lawerner@uw.edu

Associate Professors

- Bierer, Julie, *Cochlear Implant Psychophysics and Physiology*, jbierer@uw.edu
- Eadie, Tanya, *Voice Disorders, Adult and Pediatric*, teadie@uw.edu
- Kendall, Diane, *Aphasia/Rehabilitation*, dkendall@uw.edu
- Max, Ludo, *Sensorimotor Control in Normal Speech and Stuttering*, ludomax@uw.edu
- Spencer, Kristie, *Motor Speech Disorders*, kas@uw.edu
- Stecker, G. Christopher, *Spatial Hearing, Neuroimaging (fMRI)*, cstecker@uw.edu

Assistant Professors

- Adrian KC Lee, *Neuroscience, Neuroimaging, Neuroengineering* akclee@uw.edu
- Sullivan, Jessica, *Audiology, Pediatric Aural Habilitation*, sulli10@uw.edu

Research Professor

- Imada, Toshi, *Cognitive Neuroimaging (5-year apt, next review Fall 2015)*, imada@uw.edu

Research Associate Professor

- Estes, Annette, *Autism Spectrum Disorders (5-year apt, next review Fall 2015)*, estesa@uw.edu

Research Assistant Professor

- Peter, Beate, *Genetics of Communication Disorders*, bypeter@uw.edu

Clinical Assistant Professors

- Dowden, Patricia A., *Augmentative and Alternative Communication*, dowden@uw.edu

Senior Lecturers

- Alarcon, Nancy B., *Speech-Language Disorders – Adult (Full-time)*, nalarcon@uw.edu
- Miller, Robert M., *Motor Speech and Swallowing (Part-time)*, rmm2@uw.edu

Appendix C: Information about Faculty Continued

Lecturers

- Anderson, Susan, *Audiology, Diagnosis/Treatment of Adult* (**Full-time**), sjander@uw.edu
- Harney, Martha, *Auditory Assessment, Amplification, Aural Rehab* (**Full-time**), mharney@uw.edu
- Illich, Lisa, *Aural Rehabilitation* (**Full-time**), lillich@uw.edu
- Miller, Christi, *Audiology* (**Full-time**), christim@uw.edu
- Nevdahl, Martin, *Voice and Fluency Disorders* (**Full-time**), mnev Dahl@uw.edu

Clinical Instructor (Salaried)

- Brockway, Elaine (**Full-time**), ebro ck2@uw.edu
- Dunlap, Julie (**Full-time**), jul2@uw.edu
- Jacobsen, Karen (**Full-time**), kmj39@uw.edu
- Jones-Redmond, Jill (**Part-time**), jjonesre@uw.edu
- Krings, Kate (**Part-time**), krings@uw.edu
- Leighton, Kelsey (**Full-time**), kal3@uw.edu
- Leonardo, Julie (**Full-time**), jleon626@uw.edu
- Mancl, Lisa (**Full-time**), lmancl@uw.edu
- Robinson, Dana (**Part-time**), dslocomb@uw.edu
- Snow, Laura (**Part-time**), lsnow@uw.edu

Lecturer P/T– Short-Term

- Gray, Jennifer (AWS), jlgray53@uw.edu
- Silkes, Joann (AWS), jsilkes@uw.edu
- Thorne, John (AWS), jct6@uw.edu

Inactive Faculty 2012-2013

Emeritus Professors

- Minifie, Fred D., (**Emeritus**) *Speech Acoustics*
- Prins, David, (**Emeritus**) *Stuttering*
- Stoel-Gammon, Carol, *Phonology*, csg@uw.edu
- Wilson, Wesley R., (**Emeritus**) *Audiology; Infant Assessment*

Adjunct Professors

- Meltzoff, Andrew N., *Psychology*
- Norton, Susan J., *Audiology; Hearing Sciences*
- Yorkston, Kathryn M., *Medical Speech-Language Pathology*

Emeritus Associate Professors

- Burns, Edward (**Emeritus**), *Psychoacoustics*
- Carpenter, Robert L. (**Emeritus**), *Child Language Disorders; Reading Disabilities*
- Cooker, Harry S., (**Emeritus**) *Speech Physiology*

Appendix C: Information about Faculty Continued

Adjunct Associate Professors

- Rees, Thomas S., *Audiology*
- Merati, Albert, *Otolaryngology*
- Wright, Richard, *Linguistics*

Affiliate Associate Professors

- Moon, Christine, *Psychology, Speech Perception*
- Souza, Pamela E., *Audiology; Speech Perception and Amplification*

Adjunct Senior Lecturer

- Carmichael Olson, Heather, *Developmental and Child-Clinical Psychology*

Emeritus Senior Lecturers

- Labiak, James M. (**Emeritus**), *Audiologic Evaluation; Calibration*
- Sanborn, Sue (**Emeritus**), *Aural Rehabilitation*
- Stone-Goldman, Judy (**Emeritus**),

Adjunct Lecturer

- Drennan, Ward

Affiliate Instructor

- Huckabay, Kristiina

NANCY B. ALARCON

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REDMOND, WA 98052
(206) 601-4982

OFFICE: SPEECH & HEARING SCIENCES
1417 NE 42ND STREET
SEATTLE, WA 98105
(206)685-2212
FAX: (206)616-1185
nalarcon@uw.edu

EDUCATION

Master of Science	University of Wisconsin-Madison	1981	Speech-Language Pathology
Bachelor of Science	Purdue University	1979	Audiology & Speech Science

PROFESSIONAL EXPERIENCE

Department of Speech & Hearing Sciences	9/88 - present
University of Washington (Seattle, WA)	
Clinic Director & Sr. Lecturer	(6/99 - present)
Interim Clinic Director & Senior Lecturer	(9/98 - 6/99)
Senior Lecturer	(9/99 - present)
Lecturer & Clinical Supervisor	(9/88 - 8/99)

Faculty appointment as Senior Lecturer in Speech & Hearing Sciences and Director of the University of Washington Speech and Hearing Clinic. The clinic serves as a research and teaching laboratory within the Department of Speech and Hearing Sciences (SPHSC). Responsible for overseeing the policies, procedures and operations of the free-standing outpatient clinic that integrates research, teaching and service for individuals with communication disorders across the life-span. Outpatient Neurogenic Unit Coordinator 1988-2007 and 2011-present. Responsible for direct supervision of graduate students in clinical practica including diagnostic and treatment services in the University Clinic. Direct provider of individual and group treatment services to model services and preserve continuity of care. Instructor for neurogenic clinical practicum, and co-instructor of professional speech-language pathology seminars and professional preparation lectures. Non-School Internship Coordinator 1988 - 2007. SPHSC HIPAA Privacy Officer. Numerous departmental committee appointments including Development Committee, Graduate Selection Committee, HIPAA Privacy and Security, Typhon Workgroup, Immunization Program, and Medical SLP work group. Clinical research areas have included family intervention with aphasia and individuals with Primary Progressive Aphasia. Previously served as Advisor for UW student chapter of the National Student Speech-Language-Hearing Association.

University of Washington Medical Center
Department of Rehabilitation Medicine
Speech Pathology Services
Speech-Language Pathologist

9/88-9/90

Responsible for diagnostic and treatment services in a part-time capacity as a staff member across adult acute, rehabilitation, and outpatient settings. Case management within the Brain Injury Rehabilitation Clinic team. Additionally, provided on-site supervision of UW SPHSC graduate students in speech-language pathology.

Grossmont Hospital Speech, Language, Cognitive Services
(La Mesa, CA)
Speech-Language Pathologist

9/85-9/88

Responsible for providing consultation, screening, evaluation and treatment services for adults and children. Services encompassing disorders of traumatic brain injury, aphasia, dysarthria, dysphagia, apraxia of speech, phonology, language, fluency, voice and/or hearing impairment. Providing services to inpatients/outpatients of a 30 bed Rehabilitation Center and 425 bed Acute Care Hospital. Coordinator of Brain Injury Support Group for Survivors. Clinical Fellow Supervisor. Development and implementation of department pediatric/adolescent program. Professional subject presentations to medical team and community.

Burbank Hospital Speech, Language and Hearing Center
(Fitchburg, MA)
Speech-Language Pathologist

9/81-9/85

Services encompassing full range of communication disorders with delivery to inpatients/outpatients of the 240 bed Hospital Center, and through the programs of the Visiting Nurse Service, Coordinated Home Health Care, Head Start, YMCA Preschool and Community Child Care. Coordination and supervision of graduate student clinicians, development of Summer Language Program for children, development of early language parent training program, and professional presentations to professional staff, parents, Easter Seals Stroke Club and area chapter of International Association of Laryngectomee.

Central Wisconsin Center for the Developmentally Disabled
(Madison, WI)

9/79-8/80

Special Recreation/Activities Aide

Assisted in providing daily recreational and stimulation activities in a residential facility.

Wayne County Public Schools (Jesup, GA)
Speech, Language and Hearing Clinician

8/77-5/79

Developed and provided diagnostic and treatment programs for grades K-12 and developmentally disabled children. Assisted in developing a regional workshop for area public school clinicians. Inservice presentations to school administration and faculty.

CERTIFICATION AND LICENSING

- ASHA CCC-SLP (1982-present); ACE Recipient (multiple years; most recent 2010)
- Washington State Department of Health
 - Speech-Language Pathology (SLP) License (2003-present)
 - SLP Certification (1997- 2002)
- Academy of Neurologic Communication Disorders & Sciences
 - Board Certified in Adult Neurogenics (1994-present)
- California State License (1985-1989)
- Massachusetts State License (1984-1986)
- Georgia Teacher Certification (1977)
- Indiana Teacher Certification (1977)

DEPARTMENT COMMITTEE SERVICE

- Executive Committee
- Development Committee
- Clinic Coordinating Committee
- HIPAA Privacy Office
- Immunization Program Coordinator to HSIP
- NSSLHA – UW Chapter Advisor
- Lab Fees Committee – SPHSC representative
- ASHA Continuing Education Administrator
- Minifie Retirement Coordinator
- Tools for Transformation
- SLP Interest Group – Medical SLP Degree Development
- Medical SLP Program Review
- Minifie Lectureship Coordinator
- SPHSC Annual Recognition Ceremony – Co-coordinator
- SPHSC Distinguished Alumnus Coordinator
- Fall Orientation Planning and Implementation
- UW Health Science Open House/Fair
- Web Committee
- SPHSC Annual Open House
- Annual Minifie Lectureship
- SPHSC Annual Schools Job Fair
- School Scholarship Selection Committee
- Summer Institute on Supervision Coordinator
- Supervision Continuing Education Coordinator
- Core SLP Practica Tracking Coordinator

- Typhon Allied Health Student Tracking Administrator
- UW Healthcare Component Compliance Group – SPHSC representative
- Graduate Admission Committee
- Student Progress Committee

Master of Science Thesis Committees

- Erin Schlegel
- Avonelle Hamilton
- Christina Uranga
- Julie Leonardo
- Anna Marie Etzkorn
- Kristie Stusser

Doctoral Dissertation Committees

- Wei Zhang
- Ellen Hickey

UNIVERSITY COMMITTEE SERVICE

- Immunization Program Coordinator to Health Science Immunization Program (HSIP)
- Lab Fees Committee
- UW Health Science Open House
- UW Healthcare Component Compliance Group

PROFESSIONAL AFFILIATIONS & SERVICE

American Speech-Language-Hearing Association (Member 1982-present)

- Board of Directors – Chair of SLP Advisory Council (2009-2012)
- SLP Advisory Council– WA state member (2008-2012)
- Legislative Councilor - WA state (delegate 2000-2009)
 - SLPA Ad Hoc Cmte – 2006-2007
 - LC Floor Manager – 2003
 - LC Coordinating Committee – 2003
- Committee on Honors (2006-2008)
 - Chair (2008)
 - Member (2006-2008)
- Vice President for Quality of Service for SLP - Coordinating Committee (2006 - 2007)
- Personnel Shortage Cadre (2007)
- Workload Cadre (2003-2007)
- Council for Clinical Specialty Recognition (2002-2005)
 - Chair (2004 and 2005)
 - Member (2002-2005)

- ASHA VP for Quality of Service for SLP - Coordinating Committee Member (2001)
- Joint Committee on State & National Association Relations (1996-1998)

National Aphasia Association

- Affiliate (20011-2012)
- Advisory Council (2009-2011)
- Region 13 Area Representative (1999-2011)

ASHA Special Interest Division 2 (Neurophysiology and Neurogenic Speech and Language Disorders)

- Member (1996-present)
- Clinical sub-committee (2003-2004)

ASHA Special Interest Division 11 (Administration and Supervision)

- Member (2005-present)

Communication Sciences and Disorders Clinical Trials Research Group (CCSDRG): Outpatient Telemedicine and Technology Liaison Group (OPTTLG)

- Member (2009- 2010)

ASHA Special Interest Division 15 (Gerontology)

- Member (2005-2006)

Academy Neurologic Communication Disorders and Sciences

- Member (1994-present)
- Certification Board Member 1999-2001, 2010-present
- Certification Co-Chair 2001 and 2002

Clinical Aphasiology Conference

- Program Committee (2006)
- Local Arrangements Committee (2003)

Council of Academic Programs in Communication Sciences and Disorders

- Task Force on Alternative Clinical Education Models – Chair (2011-2013)
- Honors & Awards Committee (2007)
- ASHA/CAPCSD SLP Summit – CAPCSD Representative (2006-2007)
- Conference Program Committee (2002)

Council of State Association Presidents

- Executive Board (1995-1996)

Washington Speech-Language-Hearing Association (Member 1989-present)

- Honors & Awards Committee – Chair (2008-present)
- Convention Planning Committee (2011-2012)
- Bylaws, Standards, Ethics, & Advocacy Committee (2006-2008)
- WSHA SLPA Licensure AdHoc Committee (2006)
- ASHA Legislative Councilor Representative to WSHA Board (2000-2009)
- WSHA Task Force on Conditional Certificate (2004-2005)
- Legislative Affairs Committee Co-Chair (1998-2000)
- Licensure/Certification Task Force (1993-1997)
- Past President (1995)
- President (1994)
- President-Elect (1993)

- Ethics Committee - Chair (1990 - 1992)

California Speech-Language-Hearing Association (Member 1986)

Massachusetts Speech-Language-Hearing Association (1982-1985)

- Membership Chair (1983-1985)
- Professional Affairs Committee (1983-1985)

Wisconsin Speech-Language-Hearing Association (Member 1980-1981)

Georgia Speech and Hearing Association (Member 1978-1979)

National Student Speech-Language-Hearing Association (Member 1977, 1980-1981)

- University of Washington NSSLHA Chapter Advisor (1991-1999)
- Purdue NSSLHA Chapter President (1977)

RESEARCH & PROGRAM DEVELOPMENT

Research with colleagues: Dr. Margaret Rogers and Dr. Lesley Olswang on family-based intervention for individuals with chronic aphasia (FICA). (1995-2006)

Research with colleague, Dr. Margaret Rogers, on longitudinal studies of individuals with Primary Progressive Aphasia. (1993-2006)

Research and program development under the 1999 U.W. Tools for Transformation grant entitled “Tele-collaboration” with colleagues: Drs. Pat Dowden, Lesley Olswang, Margaret Rogers, Truman Coggins, and Pam Souza. (1999-2003)

Medical SLP degree program design, development and implementation with members of SLP Interest Group SPHSC faculty (2005-2008).

PRESENTATIONS & PUBLICATIONS

Contributed Presentations

Alarcon, N.B., Buder, E., Tullos, D., Klick, P., Lougeay, J., Madison, C., and McCready, V. (April 2012) “Alternative Clinical Education Models – CAPCSD Task Force.” Council on Academic Programs in Communication Sciences and Disorders Annual Meeting. Newport Beach, CA.

Alarcon (March 2009) “Recruiting & Retaining the Best & Brightest.” Schools Job Fair, Speech & Hearing Sciences, U.W., Seattle, WA.

Alarcon (February 2008) “Mentoring: Ideas for Success.” Schools Job Fair, Speech & Hearing Sciences, U.W., Seattle, WA.

Alarcon (October 2007) “Creating an Optimal Public School Work Setting: Implementing Caseload to Workload & Personnel Shortage Strategies.” WSHA Convention, Redmond, WA.

Alarcon, N. (July 2007) Mentoring with Awareness of Generational Differences. Summer Institute on Supervision, Seattle, WA.

Alarcon, N., and Mahshie, J. (April 2007) “Speech-Language Pathology Education Summit Update.” Council of Academic Programs in Communication Sciences and Disorders Annual Meeting, Palm Springs, CA.

Alarcon, N. (February 2007) The Supervisory Process: An Art & A Science. Seattle, WA.

Lasker, J., King, J., Fox, L., **Alarcon, N.**, & Garrett, K. (November 2006). AAC Decision-Making in Chronic and Progressive Aphasia. Presentation at the American Speech-Language-Hearing Convention, Miami, FL.

Reuler, E. and **Alarcon, N.** (October 2006) The Supervisory Process: An Art & A Science. WSHA Convention, Vancouver, WA.

Alarcon, Bennett, Evans, Ferre, Glaze, Jackson, Nunez, Sizer, Wright (November 2005). “ASHA’s Specialty Recognition Program,” Poster Session. ASHA Convention, San Diego, CA.

Alarcon, Creagan, Evans, Ferre, Nunez, Segalman, Sizer, Shinn and Sullivan (November 2004). “ASHA’s Specialty Recognition Program,” Poster Session. ASHA Convention, Philadelphia, PA.

Alarcon (February 2004) “Multi-modality Communication” SPHSC – Fireside Chat.

Rogers, M.A., & **Alarcon, N.B.** (2004). Effects of supported communication intervention on conversational symmetry and partner support. Clinical Aphasiology Conference, Park City, UT.

Cupples, **Alarcon**, Ferre, Goldman, Sizer, Shinn and Sullivan (November 2003). “ASHA’s Specialty Recognition Program,” Poster Session. ASHA Convention, Chicago, IL.

Reese, S., Sancibrian, S., **Alarcon, N.** (April 2002). “Clinical Swap Shop.” Council of Academic Programs in Communication Sciences and Disorders Annual Meeting, Palm Springs, CA.

Rogers, M.A., **Alarcon, N.B.**, Olswang, L., & Schlegel, E. (May 2001). “Quantifying the quality of communication in aphasia.” Clinical Aphasiology Conference, Sante Fe, NM.

Rogers, M.A., **Alarcon, N.B.**, & Dowden, P. (November 2000). “Communication Notebooks Available through Web-based Format.” American Speech-Language-Hearing Association, Washington, D.C..

Alarcon, N.B., Duffy, J.R., McNeil, M.R., and Rogers, M.A. (November 2000). “Language Disorders in Adults: Grand Rounds on Primary Progressive Aphasia.” American Speech-Language-Hearing Association, Washington, D.C.

Alarcon, N.B. & Rogers, M.A. (November 1999). "Communication Notebooks in the Acute Care settings: A Personalized, Dynamic, & Time-Efficient Approach." American Speech-Language-Hearing Association, San Francisco, CA.

Rogers, M.A., Schlegel, E.L., **Alarcon, N.B.**, Olswang, L., and Klingenburg, M. (November 1999). "Quantifying the quality of communication between individuals with aphasia and conversational partners." American Speech-Language-Hearing Association, San Francisco, CA.

Rogers, M.A. & **Alarcon, N.B.** (November 1998). "Primary Progressive Aphasia: Case Studies and a Demographic Overview." American Speech-Language-Hearing Association, San Antonio, TX

Hickey, E., Rogers, M.A., **Alarcon, N.B.**, & Olswang, L. (May 1998). "Social validity measures for family-based intervention for chronic aphasia (FICA)." Clinical Aphasiology conference, Asheville, NC

Olswang, L., Hickey, E., **Alarcon, N.B.**, Rogers, M.A., Cadwell, C., & Schlegel, E. (April 1998). "Treating the disability: Measurement issues in efficacy research." Treatment Efficacy conference, Nashville, TN

Hickey, E., Olswang, L., Rogers, M.A., **Alarcon, N.B.**, & Cadwell, C. (November 1997). "Family-based intervention for chronic aphasia (FICA): Use of social validation procedures." American Speech-Language-Hearing Association, Boston, MA

Rogers, M.A. & **Alarcon, N.B.** (October 1997) "Prognosis, assessment, and management of primary progressive aphasia." Washington Speech & Hearing Association, Olympia, WA

Rogers, M.A. & **Alarcon, N.B.** (May 1997) "Assessment and management of primary progressive aphasia: A longitudinal case study over a five year period." Clinical Aphasiology conference, Bigfork, MT

Hickey, E., **Alarcon, N.B.**, Rogers, M.A., & Olswang, L. (November 1996). "Family-based intervention for chronic aphasia (FICA): An alternative service delivery model." American Speech-Language-Hearing Association, Seattle, WA

Hickey, E., Rogers, M.A., Olswang, L. & **Alarcon, N.B.** (June 1996). "The effectiveness of Family-based intervention for chronic aphasia (FICA)." Seventh International Aphasia Rehabilitation Conference, Boston, MA

Rogers, M.A., **Alarcon, N.B.**, & Bjorklund, K. (November 1994). "Primary Progressive Aphasia: Language dissolution and early differentiation with dementia." American Speech-Language-Hearing Association, New Orleans, LA

Invited Presentations

Alarcon, N.B. (October 2012) “Foundations for Excellence in Clinical Supervision.” Oklahoma Speech-Language-Hearing Association Convention. Oklahoma, City, TX.

Alarcon, N.B. (October 2012) “Supporting Science to Service: Strategies for Member Success.” Oklahoma Speech-Language-Hearing Association Convention. Oklahoma, City, TX.

Alarcon, N.B. (April 2012) “Foundations for Excellence in Clinical Supervision.” Association of VA Audiologists and Speech Language Pathologists Annual Conference. San Antonio, TX.

Alarcon, N.B. (November 2011) “The Changing Climate of Volunteerism.” Council of State Association Presidents Fall 2011 Conference, San Diego, CA.

Alarcon, N.B. (June 2011) “Making a Difference – Living with Aphasia.” Young Adult Stroke Survivors Group, Seattle, WA.

Alarcon, N.B. (June 2011) “Difficult Conversations with our Students.” SpeechPathology.com

Alarcon, N.B. (March 2011) “The Art and Science of Clinical Supervision.” Utah Speech and Hearing Association Convention. Ogden, UT.

Alarcon, N.B. (March 2011) “The Impact of Our Professions: Strategies for Member Success.” Utah Speech and Hearing Association Convention. Ogden, UT.

Alarcon, N.B. (March 2011) “Supported Communication in Aphasia: Making a Quality of Life Difference.” Utah Speech and Hearing Association Convention. Ogden, UT.

Alarcon, N.B. (November 2010) “The Art & Science of Clinical Supervision – Working with Support Personnel, Students, and Colleagues” Alberta College for Speech Language Pathologist & Audiologists, Edmonton, Alberta CA.

Alarcon, N.B. (April 2010) “Advocation for the Professions: Strategies for Member Success.” New York Speech Language Hearing Association Convention. Saratoga, NY.

Alarcon, N.B. (April 2010) “Creating an Optimal Public School Work Setting: Implementing Caseload to Workload & Personnel Shortage Strategies.” New York Speech Language Hearing Association Convention. Saratoga, NY.

Alarcon, N.B. (March 2010) “Making a Difference in “Quality of Life.” Alabama Speech and Hearing Convention, Birmingham, AL.

Alarcon, N.B. (October 2009) “Intervention in Adult Neurologic Communication Disorders: Making a “Quality of Life” Difference.” Iowa Speech and Hearing Association Annual Convention, West Des Moines, IA.

Alarcon, N.B. (October 2009) “ASHA Hot Topics – from Legislative Issues to Healthcare Reimbursement” and “Supported Communication in Aphasia: Making a Difference in Quality of Life.” Kansas Speech and Hearing Association Annual Convention, Wichita, KS.

Alarcon, N.B. (September 2009) “The Supervisory Relationship across Settings and Generations.” Alaska Speech and Hearing Association Annual Convention, Anchorage, AK.

Alarcon, N.B. (September 2009) “Caseload to Workload: Strengthening our Roles in Schools.” Alaska Speech and Hearing Association Annual Convention, Anchorage, AK.

Alarcon, N.B. (March 2009) “The Continuum of the Supervisory Process: Building for Success” California Speech and Hearing Association Annual Convention, Long Beach, CA.

Zerwas, S., Goberman, A, Niebuhr, D.& **Alarcon, N.B.** (April 2008) “Tools, Techniques and Approaches - Closing the Assessment Gap?” CAPCSD Annual Conference, Tarpon Springs, FL.

Alarcon, N.B. (April 2008) “Supported Communication in Aphasia Intervention.” Fireside Chat, Speech & Hearing Sciences, U.W., Seattle, WA

Alarcon, N.B. (January 2008) “Creating an Optimal Public School Work Setting: Implementing Caseload to Workload & Personnel Shortage Strategies.” Lake Washington School District, Redmond, WA.

Alarcon, N.B. (November 2007) “Living with Aphasia.” TACID Stroke Group, Tacoma, WA

Alarcon, N.B. (October 2007) “The Continuum of the Supervisory Process: Building for Success.” New Mexico Speech & Hearing Association Convention, Albuquerque, NM.

Alarcon, N.B. (October 2007) “Adult Neuro: Making a Difference in Quality of Life”. New Mexico Speech & Hearing Association Convention, Albuquerque, NM.

Alarcon, N.B. (October 2007) “Creating an Optimal Public School Work Setting: Implementing Caseload to Workload & Personnel Shortage Strategies.” Washington Speech & Hearing Association Convention, Redmond, WA.

Alarcon, N.B. (May 2007) “An Introduction to Supervision.” Audiology ProSem, Speech & Hearing Sciences, U.W., Seattle, WA

Alarcon, N.B. (March 2007) “Living with Aphasia.” Young Adult Stroke Group, Seattle, WA.

Alarcon, N.B. (March 2006) “Caseload to Workload: Establishing Our Roles in the School Settings.” Idaho Speech and Hearing Convention, Boise, ID.

Rogers, M. and **Alarcon, N.B.** (October 2005) “Supported Communication Intervention: A Functional-Social Approach to Aphasia Rehabilitation.” Blaine, WA.

Alarcon, N.B. (May 2005) “Caseload to Workload: Establishing Our Roles in the School Settings.” Seattle Public School District, Seattle, WA.

Alarcon, N.B. (April 2005) “As Hollywood Sees Us: The Drama of Communication Disorders.” U.W. Department of Speech and Hearing Sciences, Seattle, WA.

Alarcon, N.B. (April 2005) “Status of Licensure and Certification for Speech Language Pathology Assistants.” Council of Academic Programs in Comm. Sciences & Disorders Conference, Scottsdale, AZ.

Alarcon, N.B. (March 2005) “Caseload to Workload: Establishing Our Roles in the School Settings” and “Adult Neuro: Making a Difference in Quality of Life”. IMASH Convention, Ogden, UT

Alarcon, N.B. & Reuler, E. (April 2004) “New and Used Clinic Directors” Clinical Exchange. Council of Academic Programs in Comm. Sciences & Disorders Conference

Alarcon, N.B. (2003-2004) “Caseload to Workload: Establishing Our Roles in the School Settings”

Kent School District – Kent, WA April 2, 2004 and October 2004

Spokane School District - Spokane, WA November 22, 2003

WSHA Inservice Day – Shoreline, WA October 25, 2003

WSHA Inservice Day – Spokane, WA October 3, 2003

Alarcon, N.B. (October 18, 2003) “Supported Communication - Meaningful Impact Through Assessment & Intervention,” BCASLPA Convention, Vancouver, B.C.

Alarcon, N.B. (April 1, 2003) “Memory Myths, Facts and Strategies” presentation to Sammamish Presbyterian Church, Sammamish, WA.

Alarcon, N.B. (April 2002) “Memory Strategies.” Sammamish Presbyterian Church, Sammamish, WA

Alarcon, N.B. (February 2002) “Aphasia Management: A Time of Change.” Annual Neuroscience Nursing Symposium: Applying Knowledge to Clinical Practice, Shoreline, WA.

Rogers, M.A., **Alarcon, N.B.**, Dowden, P., Sohlberg, M., & Ehlhardt, L. (November 2001). “Using the Internet for research, education, and clinical intervention.” American Speech, Language, & Hearing Association Convention, New Orleans, LA.

Rogers, M.A., **Alarcon, N.B.**, & Dowden, P. (October 2001). “Communication Notebooks available through Web-based Format.” Washington Speech-Language-Hearing Association, Wenatchee, WA

Rogers, M.A. & **Alarcon, N.B.** (October 2001). “Primary Progressive Aphasia – Case Studies & Demographic Overview.” Washington Speech-Language-Hearing Association, Wenatchee, WA

Alarcon, N.B. (October 2001). “Group Treatment: The Right Stuff.” Washington Speech-Language-Hearing Association, Wenatchee, WA

Alarcon, N.B. (September 2001). “Keeping Individuals in the Game.” Alzheimer’s Caregiver Group, Seattle, WA.

Alarcon, N.B. (July 2001) “Career Paths in Speech-Language Pathology, Audiology, and Speech, Language & Hearing Sciences.” High School Mentoring Program, University of Washington, Seattle, WA.

Alarcon, N.B. (April 2001). “AAC Management - Working with Neurological Involved Individuals *Tools & Implementation*.” Florida Speech and Hearing Association, Orlando, FL.

Alarcon, N.B. (April 2001). “Group Treatment: The Right Stuff.” Florida Speech-Language-Hearing Association, Orlando, FL.

Alarcon, N.B. (October 2000). “New Directions in the Management of Adult Neurogenic Communication Disorders.” British Columbia Association of Speech-Language Pathologists and Audiologists Convention, Vancouver, B.C.

Rogers, M.A., & **Alarcon, N.B.** (October 1999) “New Directions in the Management of Adult Neurogenic Communication Disorders” and “Groups: Improving Communication through Social Interaction”. Iowa Speech & Hearing Association Convention, Des Moines, IA

Rogers, M.A., & **Alarcon, N.B.** (October 1999) Consultation and overview of “New Directions in the Management of Adult Neurogenic Communication Disorders” and “Groups: Improving Communication through Social Interaction”. Burlington Hospital Speech-Language Pathology Department, Burlington, IA

Alarcon, N.B. (September 1999) “New Directions for Aphasia Management: Family Interventions and communication Partners”. 13th Annual Conference: No Easy Answers: The Future of The Stroke Patient - Robbinsdale, MN

Rogers, M.A., & **Alarcon, N.B.** (April 1999) “New Directions in Aphasia Management: Clinic, Daily, and Community Programs”. Speech, Language, Learning Service - Group Health, Seattle, WA

Alarcon (February 1999). “Stroke: Impact on Communication and the Role of the SLP.” Kent Chapter - American Heart Association, Kent, WA

Publications

Dowden, P., **Alarcon, N.B.**, Vollan, T., Cumley, G.D., Keuhn, C.M., & Amtmann, D. (2006). Survey of SLP Caseloads in Washington State Schools: Implications and Strategies for Action. *Language, Speech and Hearing Services in Schools*, 37: 104-117.

Rogers, M.A., Jones-Redmond, J., & **Alarcon, N.B.** (1999). Parameters of semantic and phonologic activation in speakers with aphasia with and without apraxia of speech. *Aphasiology*, 13, (9/11), 871-886.

Rogers, M.A. & **Alarcon, N.B.** (1999). Characteristics and Management of Primary Progressive Aphasia. *Neurophysiology and Neurogenic Speech and Language Disorders*, ASHA SID 2, October 1999.

Rogers, M.A. & **Alarcon, N.B.** (1998). Dissolution of spoken language in primary progressive aphasia. *Aphasiology*, 12 (7/8), 635-650.

Invited Publications

Alarcon, N.B. (in press). Ongoing Management and Maintaining Communication Support. In N Simmons-Mackie, J.M. King, & D.R. Beukelman (Eds). *Supporting Communication for Adults with Acute and Chronic Aphasia*. Baltimore, MD: Brookes Publishing Co.

Chabon, S., **Alarcon, N.** & Foster, W. (2012, August 28). From the President: You Have a 'Steak' in ASHA's Continued Success. *The ASHA Leader*.

King, J., **Alarcon, N.B.**, and Rogers, M.A. (2007). Primary Progressive Aphasia. In D. R. Beukelman, K.L. Garrett, & K. M. Yorkston, (Eds.). *Augmentative Communication Strategies for adults with Acute or Chronic Medical Conditions*. Baltimore, MD: Brookes Publishing Co.

Alarcon, N.B. (June 2007). Building from the Ground Up. *School Based Issues*, ASHA SID 16 Newsletter, June 2007.

Alarcon, N.B. & Rogers, M.R (2007). Supported Communication Intervention for Aphasia: A Functional-Social Approach to Aphasia Rehabilitation. ASHA Master Clinician Video/DVD Series.

King, J., **Alarcon, N.B.**, and Rogers, M.A. (2007). Primary Progressive Aphasia. In D. R. Beukelman, K.L. Garrett, & K. M. Yorkston, (Eds.). *Augmentative Communication Strategies for Adults with Acute or Chronic Medical Conditions*. Baltimore, MD: Brookes Publishing Co.

Royal-Evans, C, **Alarcon, N.B.**, Fink, R., Howell, M., Vickers, C., and Wilson, B. (June 2003). Back to Basics: Documenting Hearing Status in Adults. *Neurophysiology and Neurogenic Speech and Language Disorders*, ASHA SID 2, June 2003

Alarcon, N.B. (April 2001). "The Real Survivors." *Washington Athletic Club* 20 (4): 54-55.

Rogers, M.A., King, J., & **Alarcon, N.B.** (2000). Proactive management of primary progressive aphasia. In D.R. Beukelman, K. Yorkston, and J. Reichle (Eds.) *Augmentative Communication for Adults with Neurogenic and Neuromuscular Disabilities*. Baltimore, MD: Brookes Publishing Co.

Rogers, M.A., **Alarcon, N.B.**, & Olswang, L.B. (1999). Aphasia Management Considered in the context of the World Health Organization Model of Disablements. In I.R. Odderson and E.M. Halar (Eds.) *Physical Medicine and Rehabilitation Clinic of North America*.

HONORS & AWARDS

Council of Academic Programs in Communication Disorders & Sciences (CAPCSD) Special Service Award (2007)

ASHA Fellow (2005)

Washington Speech & Hearing Association – Honors of the Association (2002).

Washington Speech & Hearing Association - Board Recognition Award (1995).

FUNDING AWARDS

Mindlin Foundation GRANT OF \$2500 to develop clinic brochures.

Dr. John and Mrs. Helen Schilling Gifts - to recognize excellence in teaching and service, and to provide support for development and continuation of clinical research; establishing the “Neurogenic Communication Disorders” budget at the direction of N. Alarcon. Funded 1995 (\$10,000), 1996 (\$10,000), 1998 (\$10,000), 1998 (\$10,000), 1999 (\$10,000), and estate gift announced for 2000 (\$25,000).

Hill Family Foundation Gift - to support the application of technology in assisting individuals with communication disorders and directed to the “Neurogenic Communication Disorders” budget at the direction of N. Alarcon. Funded 1997 (\$10,000).

RELATED PROFESSIONAL ACTIVITIES

- Aphasia Day 2010, 2011 and 2012: Development and implementation of a community based day of lectures, events and exhibits for individuals with aphasia and their families. Linking undergraduate and graduate student learning experiences in a community environment
- Cengage Learning: Invited reviewer of an educational audiology textbook; June 2010
- Program Review of the University of Tennessee, Knoxville - Department of Speech and Hearing Sciences: 1 of 4 nationally invited faculty to provide a comprehensive review; November 2009

- Letters of Promotion: request to complete a review of credentials and provide documentation for possible promotion for a member of St. Xavier Faculty, and University of Iowa faculty
- Alaska Speech & Hearing Association – consultation on Recruitment and Retention strategies for Speech-Language Pathology – meeting January 2010
- SPHSC 546(Advanced Neuro Language course for Medical SLP curriculum): Co-development and preparation for new course offering Spring 2008
- Summer Institute on Supervision – Inaugural program on supervision including planning, development, and implementation July 2007
- School Job Fair, May 2006 - assisting in planning and coordination of Inaugural Schools Job Fair for SPHSC
- “UW Rehab Job Fair” – Recruited SLP vendors for table displays (4/16/05); generated revenue of \$600 for SPHSC
- UW Kids in Health Care – Participant and presentation (February 2004)
- Arts and Sciences – Celebration of Distinction: coordination of SPHSC table and display (May 2004)
- Tools for Transformation – Communication Notebook Builder web project co-development with M. Rogers, P. Dowden and J. Frekonja
- Acquisition of a \$10,000 gift to SPHSC to establish the Neurogenic Scholarship for MS entry-level graduate recruitment
- Tools for Transformation SPHSC proposal development
- Planning and establishment of a “development fund” program in SPHSC
- Co-development of the 2000 inaugural edition of Eagleson “Eagle” with M.Johnson, G.Lamouraux-McElhaney, C.Stoel-Gammon

RELATED COMMUNITY SERVICE

P.E.O. Chapter HV - Women’s International Educational Philanthropy (Member 2001–present)

- State Convention – Facilities & Audio-Visual Chair (2011)
- Eastside Reciprocity (2011)
- Chapter President (2008-2010)
- Program Committee (2006-2007, 2007-2008)
- Social Committee (2007-2008)
- Education Committee Chair (2002 – 2003, 2007-2008)
- Chaplain (2005 -2006)
- Parliamentarian (2005)
- Corresponding Secretary (2003)
- Chaplain (2002-2003)

Tacoma Stroke Support Group – TACID Tacoma, WA (2009-2011) Re-established community support group for survivors and families.

Seattle Yacht Club – Special People’s Cruise (2008-2010) Provided ground support for Lake Washington holiday cruise event for guest individuals with disability. Secured donations for guest gifts.

**UNIVERSITY OF WASHINGTON
SPEECH & HEARING SCIENCES**

Susan Anderson, AuD
Lecturer, Department of Speech and Hearing Sciences

PROFESSIONAL EXPERIENCE

University of Washington, Department of Speech and Hearing Sciences Lecturer/Clinical Supervisor/Audiologist	2007 to present
The Hear Center at Group Health Cooperative Clinical Audiologist	1993 to 2007
Hearing Healthcare Center , Olympia WA Clinical Audiologist	1990 to 1993

PROFESSIONAL MEMBERSHIPS/CERTIFICATIONS

- American Academy of Audiology (AAA), Fellow
- American Speech-Language-Hearing Association (ASHA), Certification/Member
- Washington State Department of Health, Licensed Audiologist
- Washington State Academy of Audiology (WSAA), Member
- Washington Speech, Language, Hearing Association

EDUCATION

Doctor of Audiology 2005	Salus University George S. Osborne College of Audiology Elkins Park, PA
Masters of Arts in Audiology 1989	University of Northern Colorado Greeley, CO
Bachelor of Arts: Communication Disorders 1988	University of Northern Colorado Greeley, CO

1. Supervision and Courses

A. Practica

SPHSC 591,A,D,E, L– Advanced Practicum in Audiology (quarterly, Winter 2008 to present)

B. Didactic:

SPHSC 579 Geriatric Audiology (Summer 2010 to present)

SPHSC 584 Advanced Amplification (Fall 2010)

2. Departmental

A. Faculty Committees

- Audiology Interest Group
- Audiology Outreach Committee
- Au.D. Graduate Selection Committee
- Peer Teaching Review
- Web Committee (no longer active)

B. Clinical Activities

- Assist in ordering and updating products and services for the Audiology clinic
- Supervision of work-study students in the clinic
- Coordinate various outreach activities involving AuD students and staff including health fairs, educational in-services, and school hearing screenings.
- Coordinated the fitting of hearing protection to a class of UW Dental students (2009)

3. Program Development

- Audiology Outreach Committee – participate in developing community outreach opportunities for students.
- Quarterly in-service to the UW community on hearing loss and hearing aid technology.

4. Presentations and Community Service

- 2008 Presented to Environmental Health Services regarding aspects of hearing monitoring for the University hearing conservation program.
- Woodstick 2008 -10: Public education regarding hearing conservation among musicians.
- Project Homeless connect – Lions Club health screening project for low income/homeless in Snohomish county area.
- Girls U9 youth soccer coach
- Co-Leader for Girls Scout Troop 43477 2011-present

5. Professional Service

- 1990 to 1993: The Hearing Healthcare Center: provided a range of clinical services to adults and pediatric population including diagnostic hearing testing, Electronystagmography, and hearing aid fitting and dispensing. Responsible for scheduling and providing industrial hearing conservation services for approximately 20 small companies.
- 1993 to 2007 The Hear Center/Group Health Cooperative: provided diagnostic services for adult and pediatric population, including VNG, amplification services for the adult population; supervision of undergraduate and CFY level clinicians; assist in daily operation of a busy clinic (i.e. inventory management, evaluation of service quality, etc.) Presented on topics of hearing healthcare to medical staff and senior groups of Group Health members on a biannual basis.
- 2007-present-UW SPHSC: Provided direct patient care and modeled patient care to students in AuD program and undergraduates in observation

- 2012-13 Washington Speech, Language, and Hearing Association board member

Carolyn R. Baylor, Ph.D., CCC-SLP

Personal Information

Box 356490
Department of Rehabilitation Medicine
University of Washington
Seattle, WA 98198
Phone: 206-755-2247
Email: cbaylor@u.washington.edu

Birthplace: Helena, Montana

Education

1987 – 1991 **Bachelor of Science, Speech and Hearing Sciences**
University of Washington
Seattle, WA

1991 – 1993 **Master of Science, Speech-Language Pathology**
University of Washington
Seattle, WA

Thesis Title: The effects of semantic and syntactic context on the actual and estimated sentence intelligibility of dysarthric speakers

2002 – 2007 **Doctor of Philosophy, Speech-Language Pathology**
University of Washington
Seattle, WA

Dissertation Title: Initial psychometric testing of the Communicative Participation Scale using Item Response Theory in a spasmodic dysphonia sample

Post-Graduate Training

2007 – 2008 **T32 Post-doctoral Fellowship in Rehabilitation Sciences**
National Center for Medical Rehabilitation Research
University of Washington, Department of Rehabilitation Medicine, Seattle, WA

2008 – 2009 **University of Washington Advanced Rehabilitation Research Training Grant**
National Institute of Disability and Rehabilitation Research (NIDRR)
University of Washington, Department of Rehabilitation Medicine, Seattle, WA

Faculty Positions Held

2009 – present **Acting Assistant Professor**
Department of Rehabilitation Medicine
University of Washington, Seattle, WA

Clinical Positions Held

1993 **Speech Pathologist, Student Internship**
University of Washington Medical Center / Harborview Medical Center
Seattle, WA

1994 – 1996 **Speech Pathologist**
St. Joseph Medical Center
Tacoma, WA

1996 – 2001 **Speech Pathologist**
Virginia Mason Medical Center –Otolaryngology / Head and Neck Surgery
Seattle, WA

Honors

1992 **American Speech-Language-Hearing Foundation**
Graduate Student Scholarship

1994 **Carrell-Miner Clinical Achievement Award**
University of Washington – Department of Speech and Hearing Sciences

2007 **American Speech-Language-Hearing Association**
Conference scholarship for student submission to convention program

2011 **American Speech-Language-Hearing Association**
Recipient of travel award and acceptance to “Lessons for Success” research training conference

2012 **2011 Editors’ Award for the *American Journal of Speech-Language Pathology***. Manuscript titled “A Qualitative Study of Interference With Communicative Participation Across Communication Disorders in Adults”

2012 **American Speech-Language-Hearing Association Research-Mentor Pair Travel Award** for annual ASHA convention. Mentor to Peter Meulenbroek.

Current Licenses to Practice

1994 - present **Licensed Speech-Language Pathologist**
Washington State LL 00001087

1994 - present **Certificate of Clinical Competence**
American Speech-Language-Hearing Foundation

Professional Organizations

1994 – present **American Speech-Language-Hearing Association**

1994 – present **Washington State Speech-Language-Hearing Association**

Teaching Responsibilities

1991 – 1993 **Teaching Assistant**
Department of Speech and Hearing Sciences
University of Washington, Seattle, WA

Laboratory Instructor – undergraduate speech science courses
Responsible for approximately 75% of quiz sections

1996 – 2001 **Clinical Supervisor**
Virginia Mason Medical Center, Seattle, WA
Supervised speech pathology internship students in voice disorders clinic

1998; 2000 **Interim Clinical Supervisor**
University of Washington Speech and Hearing Clinic, Seattle, WA
Interim supervisor in voice practicum

2002 – 2003 **Teaching Assistant**
Department of Speech and Hearing Sciences
University of Washington, Seattle, WA

Laboratory Instructor – undergraduate course in assessment of speech and language disorders. Responsible for approximately 50% of quiz sections

Laboratory Instructor – undergraduate course in anatomy and physiology for speech. Responsible for 100% of quiz sections

Course Instructor – graduate voice disorders course
Responsible for approximately 30% of the course

Clinical Supervisor – graduate practica in neurologic communication disorders

2008 **Instructor**
Department of Speech and Hearing Sciences
University of Washington, Seattle, WA

Course Instructor – undergraduate course in treatment of speech and language disorders. Responsible for 75% of the course

Course Instructor – graduate course in introduction to research methods. Responsible for 50% of the course

2009

Instructor

Department of Speech and Hearing Sciences
University of Washington, Seattle, WA

Clinical Supervisor – graduate practica in neurologic communication disorders

Course Instructor – undergraduate course in treatment of speech and language disorders. Responsible for 100% of the course. Spring and Summer quarters.

2010 – present **Instructor**

Department of Speech and Hearing Sciences
University of Washington, Seattle, WA

Course Instructor – undergraduate course in treatment of speech and language disorders. Responsible for 100% of the course. Spring and Summer quarters.

2012

Co-Instructor

Department of Rehabilitation Medicine
Review course on communication disorders for rehabilitation residents

2012

Instructor

Department of Speech and Hearing Sciences
University of Washington, Seattle, WA

Course Instructor – “Introduction to research methods” for graduate speech-language pathology students. Responsible for 100% of the course. Autumn quarter.

2013

Co-Instructor

Department of Rehabilitation Medicine
University of Washington, Seattle, WA

Special topics seminar: “Effective patient-provider communication for patients with communication disorders (for speech-pathology students)”

Research Funding

2003 – 2004 **NIH Pre-doctoral Departmental Training Grant** (PI: Chris Moore)
Pre-doctoral Trainee

University of Washington, Department of Speech and Hearing Sciences, Seattle, WA

- 2004 – 2007 **Pre-doctoral Research Assistant** (PI: Kathryn Yorkston)
Planning grant: Developing a scale of Communicative Participation
National Center for Medical Rehabilitation Research
University of Washington, Department of Rehabilitation Medicine, Seattle, WA
- 2007 – 2008 **T32 Post-doctoral Fellowship Rehabilitation Sciences** (PI: Kathryn Yorkston)
Post-doctoral Fellow
National Center for Medical Rehabilitation Research
University of Washington, Department of Rehabilitation Medicine, Seattle, WA
- 2008 – 2009 **University of Washington Advanced Rehabilitation Research Training Grant**
(PI: Debbie Kartin)
Post-doctoral Fellow
National Institute of Disability and Rehabilitation Research
University of Washington, Department of Rehabilitation Medicine, Seattle, WA
- 2008 **Walter C. and Anita Stolov Research Award**
Research award recipient
Department of Rehabilitation Medicine, University of Washington, Seattle WA
This is an internal departmental research award given to graduate students and junior faculty for research development. The purpose of this award was to further development of the Communicative Participation Item Bank through qualitative interviews.
Total budget - \$1,000
- 2009 - 2012 **R03** (Principal investigator)
Measuring communicative participation in adults with communication disorders
National Institute for Deafness and other Communication Disorders
Annual budget = \$100,000
- 2010 **Walter C. and Anita Stolov Research Award**
Co-investigator
Department of Rehabilitation Medicine, University of Washington, Seattle WA
This is an internal departmental research award given to graduate students and junior faculty for research development. Project title: “The effects of training on the competence and attitudes of fourth year medical students regarding patient-provider communication with patients with communication disorders.”
Total budget - \$1,400

2013-2014 **American Speech-Language-Hearing Foundation Clinical Research Grant**
Principal investigator
Validating the Communicative Participation Item Bank for individuals with
aphasia
Annual budget: \$35,000

Bibliography

Manuscripts in refereed journals

1. **Baylor, C. R.**, Yorkston, K. M., & Eadie, T. L. (2005). The consequences of spasmodic dysphonia on communication-related quality of life: A qualitative study of the insider's experiences. *Journal of Communication Disorders*, *38*, 395-419.
2. Eadie, T. L., Yorkston, K. M., Klasner, E. R., Dudgeon, B. J., Deitz, J., **Baylor, C. R.**, et al. (2006). Measuring communicative participation: A review of self-report instruments in speech-language pathology. *American Journal of Speech-Language Pathology*, *15*, 307-320.
3. Eadie, T. L., & **Baylor, C. R.** (2006). The effects of training on inexperienced listeners' judgments of dysphonic voice. *Journal of Voice*, *20*(4), 527-544.
4. **Baylor, C. R.**, Yorkston, K. M., Eadie, T. L., & Maronian, N. (2007). The psychosocial consequences of botox injections for spasmodic dysphonia: A qualitative study of patients' experiences. *Journal of Voice*, *21*(1), 231-247.
5. Eadie, T. L., Nicolici, C., **Baylor, C. R.**, Almand, K., Waugh, P., & Maronian, N. (2007). Effect of experience on judgments of adductor spasmodic dysphonia (ADSD). *Annals of Otolaryngology, Rhinology and Laryngology*, *116*(9), 695-701.
6. Yorkston, K. M., **Baylor, C. R.**, Klasner, E. R., Deitz, J., Dudgeon, B. J., Eadie, T. L., et al. (2007). Satisfaction with communicative participation as defined by adults with multiple sclerosis: a qualitative study. *Journal of Communication Disorders*, *40*, 433-451.
7. Yorkston, K. M., **Baylor, C. R.**, Deitz, J., Dudgeon, B. J., Eadie, T. L., Miller, R. M., et al. (2008). Developing a scale of communicative participation: a cognitive interviewing study. *Disability and Rehabilitation*, *30*(6), 425-433.
8. **Baylor, C. R.**, Yorkston, K. M., Eadie, T. L., Miller, R., & Amtmann, D. (2008). The Levels of Speech Usage: A self-report scale for describing how people use speech. *Journal of Medical Speech-Language Pathology*, *16*(4), 191-198.
9. **Baylor, C. R.**, K. M. Yorkston, et al. (2009). Developing the Communicative Participation Item Bank: Rasch analysis results from a spasmodic dysphonia sample. *Journal of Speech Language and Hearing Research* *52*, 1302-1320.

10. **Baylor, C. R.**, Yorkston, K. M., Bamer, A., Britton, D., & Amtmann, D. (2010). Variables associated with communicative participation in people with multiple sclerosis: A regression analysis. *American Journal of Speech-Language Pathology*, *19*, 143-153.
11. **Baylor, C. R.**, Hula, W., Donovan, N. J., Doyle, P., Kendall, D., & Yorkston, K. M. (2011). An introduction to Item Response Theory and Rasch models for speech-language pathologists. *American Journal of Speech-Language Pathology*, *20*, 243-259.
12. **Baylor, C. R.**, Burns, M., Eadie, T. L., Britton, D., & Yorkston, K. M. (2011). A qualitative study of interference with communicative participation across communication disorders in adults. *American Journal of Speech-Language Pathology*, *20*, 269-287.
13. Britton, D., Yorkston, K. M., Eadie, T., Stepp, C., Ciol, M. A., **Baylor, C.**, et al. (2012). Endoscopic assessment of vocal fold movements during cough. *Annals of Otology, Rhinology and Laryngology*, *121*(1), 21-27.
14. Burns, M., **Baylor, C. R.**, Morris, M., McNalley, T., & Yorkston, K. M. (2012). Training Healthcare Providers in Patient-Provider Communication: What Medical Education and Speech-Language Pathology Can Learn from One Another. *Aphasiology*, *26*(5), 673-688.
15. Gray, C., **Baylor, C.**, Eadie, T., Kendall, D., & Yorkston, K. M. (2012). The Levels of Speech Usage rating scale: comparison of client self-ratings with speech pathologist ratings. *International Journal of Language and Communication Disorders*, *47*(3), 333-344. (This project was a Master's thesis that I supervised for Christa Gray)
16. **Baylor, C.**, Amtmann, D., & Yorkston, K. M. (in press). A longitudinal study of communicative participation in individuals with multiple sclerosis: Latent classes and predictors. *Journal of Medical Speech-Language Pathology*.
17. **Baylor, C.**, Yorkston, K., Eadie, T., Kim, J., Chung, H., & Amtmann, D. (in press). The Communicative Participation Item Bank (CPIB): Item bank calibration and development of a disorder-generic short form. *Journal of Speech Language and Hearing Research*.

Manuscripts currently submitted to peer-reviewed journals

Baylor, C., McAuliffe, M., Hughes, L., Yorkston, K., Anderson, T., Kim, J., & Amtmann, D. (submitted). A differential item functioning (DIF) analysis of the Communicative Participation Item Bank (CPIB): Comparing individuals with Parkinson's disease from the United States and New Zealand.

Eadie, T., Lamvik, K., **Baylor, C.**, Yorkston, K. M., Kim, J., & Amtmann, D. (submitted). Communicative participation and quality of life in head and neck cancer.

Book Chapters and Invited Articles

1. **Carter, C.**, Yorkston, K. M., Strand, E., & Hammen, V. L. (1996). Effects of semantic and syntactic context on actual and estimated sentence intelligibility of dysarthric speakers. In D. A. Robin, K. M. Yorkston & D. Beukelman, R. (Eds.), *Disorders of Motor Speech: Assessment, Treatment, and Clinical Characterization* (pp. 67- 87). Baltimore: Paul H. Brooks Publishing.
2. **Baylor, C. R.** (2003, April). Structural CT and MRI - the basics. *Perspectives on Neurophysiology and Neurogenic Speech and Language Disorders; Special Interest Division 2 - American Speech Language Hearing Association, 13*, 18-24.
3. **Baylor, C. R.**, & Yorkston, K. M. (2007). Using systematic reviews and practice guidelines: a how-to guide for clinicians. *Perspectives on Neurophysiology and Neurogenic Speech and Language Disorders, 17*(1).
4. Yorkston, K. M., & **Baylor, C. R.** (2009). The lack of RCT's on dysarthria intervention does not necessarily indicate there is no evidence to guide practice. *Evidence-Based Communication Assessment and Intervention, 3*(2), 79-82.
5. Yorkston, K. M., Bourgeois, M. S., & **Baylor, C. R.** (2010). Communication and Aging. *Physical Medicine and Rehabilitation Clinics of North America, 21*(2), 309-319.
6. Yorkston, K. M., & **Baylor, C. R.** (2011). Measurement of Communicative Participation. In A. Lowit & R. Kent (Eds.), *Assessment of Motor Speech Disorders*. San Diego, CA: Plural Publishing.
7. Yorkston, K. M., & **Baylor, C.** (in press). Evidence-Based Practice: Applying Research Outcomes to Inform Clinical Practice. In L. A. Golper (Ed.), *Outcomes in Speech Language Pathology*: Thieme.

Technical papers

- Baylor, C. R.**, Yorkston, K. M., Strand, E., Eadie, T. L., & Duffy, J. (2005). Measurement of treatment outcome in unilateral vocal fold paralysis: A systematic review. From <http://www.ancds.org/>

Other Publications

1. Minifie, F., **Carter, C.**, & Smith, J. (1994). *Introduction to Communication Sciences and Disorders – Student Workbook*. San Diego: Singular Publishing Group, Inc.
2. **Baylor, C.** & Ceto, M. (2000). *Staying Strong – Nutrition for Head and Neck Cancer*. Internal publication of patient education book. Virginia Mason Medical Center.

Conference Presentations

1. Eadie, T. L., **Baylor, C. R.**, & Yorkston, K. M. (2005). *Measuring the functional impact of voice disorders*. Paper presented at the Washington Speech-Language-Hearing Association State Convention, Blaine, WA.
2. **Baylor, C. R.**, Yorkston, K. M., & Eadie, T. L. (2005). *What patients teach us about experiencing spasmodic dysphonia and botox*. Paper presented at the American Speech-Language-Hearing Association Convention, San Diego.
3. Eadie, T. L., **Baylor, C. R.**, & Yorkston, K. M. (2005). *Measuring the functional impact of voice disorders*. Paper presented at the American Speech-Language-Hearing Association Convention, San Diego.
4. Yorkston, K. M., Klasner, E. R., **Baylor, C. R.**, & Eadie, T. L. (2005). *Dimensions of satisfaction with communicative participation: Adults with neurologic disorders*. Paper presented at the American Speech-Language-Hearing Association Convention, San Diego.
5. **Baylor, C. R.**, Yorkston, K. M., Eadie, T. L., & Maronian, N. (2006). *Understanding the outcomes of botox treatment for spasmodic dysphonia from the client's perspective*. Paper presented at the Conference on Motor Speech, Austin, TX.
6. **Baylor, C. R.**, Yorkston, K. M., Eadie, T. L., & Amtmann, D. (2007). *Developing the Communicative Participation Item Bank: Testing in the spasmodic dysphonia population*. Paper presented at the American Speech-Language-Hearing Association Annual Convention, Boston, MA.
7. **Baylor, C. R.**, Yorkston, K. M., Eadie, T. L., & Amtmann, D. (2007). *Comparing web-based vs. paper administration of the Communicative Participation Item Bank in people with spasmodic dysphonia*. Paper presented at the American Speech-Language-Hearing Association Annual Convention, Boston, MA.
8. **Baylor, C. R.**, Yorkston, K. M., Eadie, T. L., & Amtmann, D. (2008, March 6-9). *The Levels of Speech Needs participant description tool: Preliminary data from a spasmodic dysphonia sample*. Paper presented at the Conference on Motor Speech, Monterey, CA.
9. **Baylor, C. R.**, & Eadie, T. L. (2008, March 29). *Outcome measurement for SD: Asking the experts*. Paper presented at the National Spasmodic Dysphonia Association Symposium, Salt Lake City, UT.
10. **Baylor, C. R.**, Yorkston, K. M., Eadie, T. L., & Amtmann, D. (2008). *The Levels of Speech Usage: factor analysis of a new self-report tool for coding speech usage*. Paper presented at the American Speech Language Hearing Association annual convention, Chicago, IL.
11. Yorkston, K. M., **Baylor, C. R.**, Eadie, T. L., & Amtmann, D. (2008, Nov. 20-22). *The Communicative Participation Item Bank: Definitions, development and application*.

Paper presented at the American Speech Language Hearing Association Annual Convention, Chicago, IL.

12. Yorkston, K. M., **Baylor, C. R.**, Eadie, T. L., & Amtmann, D. (2008, Nov. 19). *The Communicative Participation Item Bank: Definitions, development and applications*. Paper presented at the Academy of Neurogenic Communication Sciences and Disorders, Chicago, IL.
13. Britton, D., Yorkston, K. M., Eadie, T. L., Merati, A. L., **Baylor, C. R.**, & Stepp, C. (2010). *Endoscopic assessment of vocal fold movements during cough*. Paper presented at the Motor Speech Conference, Savannah, GA.
14. **Baylor, C. R.**, Yorkston, K. M., Burns, M., Eadie, T. L., & Britton, D. (2010). *Interference in communicative participation: qualitative perspectives across communication disorders*. Paper presented at the Motor Speech Conference, Savannah, GA
15. **Baylor, C. R.**, Yorkston, K. M., Verrall, A., & Cook, K. (2010). *A longitudinal study of communicative participation and other symptoms in individuals with multiple sclerosis*. Paper presented at the American Speech-Language-Hearing Association Annual Convention. Philadelphia, PA.
16. Gray, C., **Baylor, C. R.**, Eadie, T. L., Kendall, D., & Yorkston, K. M. (2010). *Clinician as proxy: comparison to client self-ratings on the Levels of Speech Usage scale*. Paper presented at the American Speech-Language-Hearing Association Annual Convention. Philadelphia, PA. (This is a Master's thesis project that I mentored for Christa Gray).
17. Yorkston, K. M., Bourgeois, M. S., & **Baylor, C. R.** (2010). *Communication and aging: aging with disability or disability with aging*. Paper presented at the American Speech-Language-Hearing Association Annual Convention, Philadelphia, PA.
18. **Baylor, C. R.**, Donovan, N. J., Dykstra, A., Halpern, A., Hill, F., Spielman, J., et al. (2010). *Communicative participation and motor speech disorders: clinical and research perspectives*. Paper presented at the American Speech-Language-Hearing Association Annual Convention, Philadelphia, PA.
19. McNalley, T., **Baylor, C.**, Burns, M., Morris, M., & Yorkston, K. M. (2011). *Patient-provider communication for patients with communication disorders*. Paper presented at the AAMC Western Regional Conference.
20. Eadie, T., **Baylor, C.**, Lamvik, K., & Yorkston, K. (November, 2011). *Establishing the validity of a novel measure of communicative participation across populations*. Podium presentation at the University of California at San Francisco (UCSF) Voice Conference, San Francisco, CA.

21. **Baylor, C.**, Burns, M., Morris, M., McNalley, T., Gattuccio, C., & Yorkston, K. M. (2011). *Patient-provider communication for people with communication disorders (PPC-CD): Teaching healthcare providers*. Paper presented at the American Speech-Language-Hearing Association annual convention. San Diego, CA.
22. **Baylor, C.**, Amtmann, D., & Yorkston, K. M. (2012). *A longitudinal study of communicative participation in individuals with multiple sclerosis: latent classes and predictors*. Paper presented at the Conference on Motor Speech. March 1-4.
23. Eadie, T., Lamvik, K., **Baylor, C.**, Yorkston, K., Kim, J., & Amtmann, D. (accepted for July, 2012). *The relationship between communicative participation and quality of life measures in head and neck cancer*. American Head and Neck Society's 8th International Conference on Head and Neck Cancer, Toronto, Ontario, Canada.
24. **Baylor, C.**, Yorkston, K., & Eadie, T. (2012). *Communicative participation in adults: Clinical implications for a cross-disorder perspective*. Paper presented at the American Speech-Language-Hearing Association Annual Convention.
25. **Baylor, C.**, Amtmann, D., Eadie, T., & Yorkston, K. (2012). *A clinical tool to measure communicative participation in adults: the Communicative Participation Item Bank (CPIB)*. Paper presented at the American Speech-Language-Hearing Association Annual Convention.
26. Yorkston, K., & **Baylor, C.** (2012). *Measuring participation outcomes in individuals with communication disorders*. Paper presented at the American Speech-Language-Hearing Association Annual Convention.
27. Burns, M., **Baylor, C.**, Morris, M., Yorkston, K., & McNalley, T. (2012). *Preparing patients with communication disorders for medical interactions*. Paper presented at the American Speech-Language-Hearing Association Annual Convention.

Community Service

- 2008 – 2009 Presentations on child speech and language development to parent groups through the PEPS program (Program for Early Parent Support) in Seattle, WA
- 2011 Co-organizer of a public education booth on voice physiology and vocal health at the UW Paws-On Science fair at Pacific Science Center, Seattle

CURRICULUM VITA

Julie Arenberg Bierer, Ph.D., CCC-A
Associate Professor
Speech and Hearing Sciences Department
University of Washington
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Seattle, WA 98105
jbierer@u.washington.edu

EDUCATION

San Francisco State University	(2001-2003)	San Francisco, CA
M.S. in Audiology		
University of Michigan	(1996-2001)	Ann Arbor, MI
Ph.D. in Neuroscience		
Boston University	(1990-1994)	Boston, MA
B.A. in Communication Disorders		

PHD DISSERTATION TITLE: PATTERNS OF AUDITORY CORTICAL ACTIVATION ELICITED BY STIMULATION OF A COCHLEAR IMPLANT **DISSERTATION ADVISER: JOHN C. MIDDLEBROOKS**

EMPLOYMENT

<u>Position</u>	<u>Institution/Organization</u>	<u>Faculty/Dept/School</u>	<u>Start</u>	<u>End</u>
Associate Professor	University of Washington	Dept. of Speech and Hearing Sciences	09.2011	current
Assistant Professor	University of Washington	Dept of Speech and Hearing Sciences	09.2005	08.2011
Clinical Fellow	Stanford Hospital and Clinics	Dept. of Hearing Sciences	03.2003	09.2005
Research Fellow	Epstein Laboratory, Univ. of California, at San Francisco	Dept. of Otolaryngology	05.2001	09.2005
Graduate Student	University of Michigan	Dept. of Psychology	09.1997	12.1997
Instructor	Biopsychology (PSY 330)			

TALKS, PAPERS, AND PRESENTATIONS

REFEREED JOURNAL PUBLICATIONS AND INVITED REVIEWS (16)

Jameyson, E.M., **Bierer, J.A.**, and Rubinstein, J.T. "Cochlear implantation for peripheral neuropathies associated with Charcot-Marie-Tooth (CMT): A case report." (*Submitted to Audiology and Neurotology, May 2012*).

Bierer, J.A., Faulkner, K.F., and Tremblay, K.L. "Identifying cochlear implant channels with poor electrode-neuron interface: electrically-evoked auditory brainstem responses." Ear Hear. 32(4):436-44, 2011.

Bierer, J.A., Bierer, S.M., Middlebrooks, J.C. "Partial tripolar cochlear implant stimulation: Spread of excitation and forward masking in the inferior colliculus." Hear Res.; 270(1-2):134-42, 2010.

Goldwyn, J.H., Bierer, S.M. and **Bierer, J.A.** "Modeling the Electro-Neuron Interface of Cochlear Implants: Effects of Neural Survival, Electrode Placement, and the Partial Tripolar Configuration." Hear Res. 268(1-2):93-104, 2010.

Bierer, J.A. "Probing the electrode-neuron interface with focused cochlear implant stimulation." Trends in Amp. 14(2):84-95, 2010.

Bierer, J.A. and Faulkner, K.F. "Identifying cochlear implant channels with poor electrode to neuron interface; partial-tripolar, single-channel thresholds and psychophysical tuning curves." Ear Hear. 31(2): 247-258, 2010.

Bierer, J.A. "Threshold and channel interaction in cochlear implant users: Evaluation of the tripolar electrode configuration." J. Acoust. Soc. Am. 121(3): 1642-1653, 2007.

Snyder, R.L., **Bierer, J.A.**, Middlebrooks, J.C. "Topographic spread of inferior colliculus activation in response to acoustic and intracochlear electric stimulation" J. Assoc. Res. In Otolaryngol. 5(3): 305-22, 2004.

Bierer, J.A., Middlebrooks, J.C. "Auditory cortical images of cochlear-prosthesis stimuli: 3. Channel-interaction." J. Assoc. Res. In Otolaryngol. 5(1): 32-48, 2004.

Bierer, J.A., Middlebrooks, J.C. "Auditory cortical images of cochlear-prosthesis stimuli: 1. Dependence on electrode configuration." J Neurophysiol. 87: 478-492, 2002.

Middlebrooks, J.C., **Bierer, J.A.** "Auditory cortical images of cochlear-prosthesis stimuli: 2. Coding of cochlear place and level of stimulation." J Neurophysiol. 87: 493-507, 2002.

Miller, A.L., **Arenberg, J.G.**, Middlebrooks, J.C., Pfingst, B.E. "Cochlear implant thresholds: Comparison of middle latency responses with psychophysical and cortical spike activity thresholds." Hearing Research. 152(1-2): 55-66, 2001.

Arenberg, J.G., Furukawa, S., Middlebrooks, J.C. "Auditory cortical images of tones and noises." J. Assoc. Res. in Otolaryngol. 1(2): 183-194, 2000.

Seidman, M.D., **Arenberg, J.G.**, Shirwany, N.A. "Palatal myoclonus as a cause of objective tinnitus: A report of six cases and a review of the literature." Ear Nose Throat J. 78(4): 292-4, 296-7, Review, 1999.

Arenberg, I.K., Cabriac, G., Marks, S., **Arenberg, J.G.**, Pfeiffer, P.R., and Murray, R.S "Cytomegalovirus antibodies in endolymphatic hydrops and Meniere's Disease." Annals New York Academy of Sciences. 830: 314-318, 1997.

Arenberg, J.G., Komjathy, D.A., Quirk, W.S., Seidman, M.D. "Local effects of nitric oxide on vestibular blood flow in the Mongolian gerbil." European Archives of Oto-Rhino-Laryngology. 254(8): 367-71, 1997.

Dornhoffer, J.L., **Arenberg, J.G.**, Arenberg, I.K., Shambaugh, G.E. "Pathophysiologic mechanisms and immune inner ear disease." Acta Otolaryngol (Stockh Suppl). 526: 30-36, 1997.

INVITED REVIEW (NON-REFEREED) (1)

Middlebrooks, J.C., **Bierer, J.A.**, Snyder R.L. "Cochlear implants: the view from the brain" Curr. Opinion in Neurobiology. 15: 488-493, 2005.

REFEREED PRESENTATIONS (28)

Bierer, J.A., Bierer, S.M., Goldwyn, J.G. "Behavioral loudness growth explained by a patient-specific cochlear implant model," Midwinter meeting of the Associate for Research in Otolaryngology, Feb. 25-29, 2012, San Diego, CA.

Bierer, J.A., and DeVries, L.A. "Characterizing channels with high thresholds using electrically-evoked compound action potentials." Objective Measures in Auditory Implants – 6th International Symposium, Sept. 22-25, 2010, Saint Louis, MO.

Faulkner, K.F., Tremblay, K.L., **Bierer, J.A.** "Characterizing channels with high thresholds using electrically-evoked auditory brainstem responses." Objective Measures in Auditory Implants – 6th International Symposium, Sept. 22-25, 2010, Saint Louis, MO.

Jameyson, E, **Bierer, J.A.**, Rubinstein, J.T. "Objective measures in a cochlear implant recipient diagnosed with Charcot-Marie-Tooth (CMT) Disease." Objective Measures in Auditory Implants – 6th International Symposium, Sept. 22-25, 2010, Saint Louis, MO.

Nye, A.D., **Bierer, J.A.** "Loudness measures using varying partial-tripolar configurations in high- and low-threshold channels." Conference on Implantable Auditory Prostheses, July 12 – 17, 2009, Lake Tahoe, CA.

Bierer, J.A., Faulkner, K.F., Tremblay, K.T. "Identifying low-functioning cochlear implant

channels: Implications for cochlear implant fitting in adults and children.” 12th Symposium on Cochlear Implants in Children, June 17-20, 2009, Seattle, W.A.

Faulkner, K.F., Tremblay, K.T., **Bierer, J.A.** “Electrically-evoked auditory brainstem responses with the partial-tripolar configuration.” American Auditory Society, March 3-5, 2009, Tempe, AZ.

Bierer, J.A., Faulkner, K.F., Tremblay, K.T. “Probing the cochlea with partial-tripolar stimulation: The feasibility of electrically-evoked auditory brainstem measures.” Assoc. for Res. In Otolaryngol., Feb. 14-19, 2009, Baltimore, M.D.

Bierer, J.A., Bierer, S.M., Middlebrooks, J.C. “The partial-tripolar cochlear implant configuration assessed by forward masking in the inferior colliculus.” Assoc. for Res. In Otolaryngol. Feb. 16-20, 2008, Pheonix, AZ.

Faulkner, K.F., Tremblay, K.T., **Bierer, J.A.** “Psychophysical tuning curves and electrically-evoked auditory brainstem responses with the partial tripolar electrode configuration.” Conference on Implantable Auditory Prostheses, July 15-20, 2007, Lake Tahoe, CA.

Goldwyn, J.H., Bierer, S.M., **Bierer, J.A.** “Validation of a cochlear implant dead region model using monopolar and tripolar threshold data.” Conference on Implantable Auditory Prostheses, July 15-20, 2007, Lake Tahoe, CA.

Bierer, S.M. and **Bierer, J.A.** “Identifying spiral ganglion dead regions with the tripolar electrode configuration: a practical model of cochlear implant stimulation.” Association for Research in Otolaryngology, Feb. 10 to 15, 2007 in Denver, CO.

Bierer, J.A. “The tripolar electrode configuration and measures of channel interaction in cochlear implant subjects.” Association for Research in Otolaryngology, Feb. 19 to 25, 2005 in New Orleans, LA.

Bierer, J.A., Litvak, L, Leake, PA. “Effects of Electrode Configuration on Psychophysical Measures of Channel Interaction in Cochlear Implant Subjects.” Society for Neuroscience, Nov. 8 to 12, 2003 in New Orleans, LA.

Bonham, BH, Snyder, RL, **Bierer, J.A.**. “Two-tone interactions in the inferior colliculus.” Society for Neuroscience, Nov. 8 to 12, 2003 in New Orleans, LA.

Bierer, J.A., Litvak, L “Effects of Electrode Configuration on Psychophysical Measures of Channel Interaction in Cochlear Implant Subjects.” Conference on Implantable Auditory Prostheses, Aug 17 to 26, 2003 in Pacific Grove, CA.

Snyder, RL, Bonham, BH, Rebscher, SJ, **Bierer, J.A.**. “Effects of single and multichannel stimulation on spread of activation in the colliculus using a UCSF-type scala tympani electrode.” Conference on Implantable Auditory Prostheses, Aug 17 to 26, 2003 in Pacific Grove, CA.

Bierer, J.A., Snyder, RL, Middlebrooks, JC. "Temporal response properties of inferior colliculus neurons for acoustical and electrical cochlear stimulation." Assoc. for Research in Otolaryngology Mid-Winter Meeting, January 27-31, 2002 in St. Petersburg Beach, FL.

Bierer, J.A., Snyder, RL, Middlebrooks, JC. "Distribution of cochlear activation monitored by multi-channel inferior colliculus recording." Conference on Implantable Auditory Prostheses, Aug. 24 to 29, 2001 in Pacific Grove, CA.

Bierer, J.A., Snyder, RL, Middlebrooks, JC. "Patterns of inferior colliculus activity in response to cochlear electrical stimulation." Assoc. for Research in Otolaryngology Mid-Winter Meeting, February 4-8, 2001 in St. Petersburg Beach, FL.

Middlebrooks, J.C., **Arenberg, J.G.** "Transmission of temporal information from a cochlear implant to auditory cortex." 31st Annual Meeting, Society for Neuroscience Meeting, Nov. 4-9, 2000 in New Orleans, LA..

Arenberg, J.G., Middlebrooks, J.C. "Cortical responses to multi-channel cochlear implant stimulation." Assoc. for Research in Otolaryngology Mid-Winter Meeting, February 20-24, 2000 in St. Petersburg Beach, FL.

Middlebrooks, J.C., **Arenberg, J.G.** "Cortical phase locking to modulated pulse-train stimulation of a cochlear implant." Conference on Implantable Auditory Prostheses, August 29 to September 3, 1999 in Pacific Grove, CA.

Arenberg, J.G., Furukawa, S., Middlebrooks, J.C. "Auditory cortical images of cochlear electrical stimulation," Conference on Implantable Auditory Prostheses, August 29 to September 3, 1999 in Pacific Grove, CA.

Arenberg, J.G., Furukawa, S., Middlebrooks, J.C. "Cortical images of sounds: Influence of center frequency, level and bandwidth," Assoc. for Research in Otolaryngology Mid-Winter Meeting, February 14-18, 1999 in St. Petersburg Beach, FL.

Arenberg, J.G., Furukawa, S., Middlebrooks, J.C. "Functional image of the cochlea in the guinea pig auditory cortex," 28th Annual Meeting, Society for Neuroscience Meeting, October 25-30, 1997 in New Orleans, LA..

Arenberg, J.G., Minoshima, S., Zwolan, T.A., Arts, H.A., Pflugst, B.E. "Cortical activation patterns with acoustic and electrical stimulation analyzed with positron emission tomography," Conference on Implantable Auditory Prostheses, August 16-20, 1997 in Pacific Grove, CA.

Arenberg, I.K., Cabriac, G., Marks, S., **Arenberg, J.G.**, Pfeiffer, P.R., Murray, R.S. "Cytomegalovirus antibodies in endolymphatic sac biopsies of patients with endolymphatic hydrops and Meniere's disease," Immunological Diseases of the Ear Meeting October 24-26, 1996 in Positano, Italy.

INVITED RESEARCH PRESENTATIONS (17)

Bierer, J.A. “Using tripolar to identify poor electrodes,” Improving patient specific programming in cochlear implant listeners, University College of London, Ear Institute, March 7, 2012.

Bierer, J.A. “The cochlear implant interface to nearby neurons,” University College of London, Ear Institute, Nov. 18, 2011.

Bierer, J.A. “Assessing the cochlear implant interface to nearby neurons,” University Medical Center of Groningen, Groningen, Netherlands, Nov. 11, 2011.

Bierer, J.A., “Assessing the cochlear implant interface to nearby neurons,” MRC Institute for Hearing Research, Nottingham, England, UK, Nov. 1, 2011.

Bierer, J.A., “Identifying poorly functioning cochlear implant channels,” MRC Cognition and Brain Sciences Unit, Cambridge, England, UK, Oct. 13, 2011.

Bierer, J.A. “Signal processing and current focusing,” Conference on Implantable Auditory Prostheses, July 24-29, 2011, Pacific Grove, CA.

Bierer, J.A. “Multi-electrode configurations to focus and steer electrical current with cochlear implants” Mid-winter meeting of the Assoc. for Research in Otolaryngology, Baltimore, MD, February 2011.

Bierer, J.A. “Poor electrode-neuron interfaces in cochlear implantees” University of Washington Seminars in Hearing and Communication Sciences (SHACS), May 14, 2010.

Bierer, J.A. “Probing the cochlea with focused electrical stimulation through a cochlear implant” University of Maryland, College Park, October 8, 2009.

Bierer, J.A. “Identifying impaired cochlear implant channels by using the partial-tripolar electrode configuration: Implications for cochlear implant fittings. Conference on Implantable Auditory Prostheses, July 12 – 17, 2009, Lake Tahoe, CA.

Bierer, J.A. “Electrode configuration and placement effects on activation patterns and channel interaction” The 12th International Symposium and Workshops on Inner Ear Medicine and Surgery, Prosper Ménière Society, Zell im Zillertal, Austria, March 9, 2006.

Bierer, J.A. “The tripolar electrode configuration reduces channel interaction” Conference on Implantable Auditory Prostheses, July 30 to Aug 4, 2005, Pacific Grove, CA.

Bierer, J.A. “It can’t hurt to tripolar” University of Washington, Department of Speech and Hearing Sciences, Feb. 9, 2004

Bierer, J.A. “The perceptual effects of electrode configuration on channel interaction” New York University, Dept. of Otolaryngology, New York, NY, Nov. 18, 2004.

Bierer, J.A. “The effects of electrode configuration on channel interaction in cochlear implant subjects” The House Ear Institute, Los Angeles, CA, Nov. 12, 2004.

Bierer, J.A. “The influence of electrode configuration of physiological and psychophysical measures of channel interaction” Ear Club, Psychology Department at the University of California, Berkeley, CA, Dec. 5, 2003.

Arenberg, J.G., Komjathy, B.S., Quirk, W.S., Seidman, M.D. “Local effects of nitric oxide on vestibular blood flow in the Mongolian gerbil.” Presented at the Prosper Meniere’s Society Meeting on March 18, 1996 in Aspen, Colorado.

RESEARCH PROJECTS, GRANTS, AND CONTRACTS

Principle Investigator

<u>Type</u>	<u>Awarding Organization</u>	<u>Date Awarded</u>
R01 DC012142 Perceptual implications of cochlear implant electrode-neuron interfaces Role: PI	NIH (NIDCD)	2012 – 2017
R03 DC008883 Probing the cochlea with partial tripolar stimulation in cochlear implantees Role: PI	NIH (NIDCD)	06.15.2008 – 06.14.2011
Bloedel Mini-grant 01.14.2008 Characterizing a new cochlear implant electrode configuration based on multi-neuron activation patterns in the guinea pig inferior colliculus Role: PI	University of Washington	01.15.2007 –
Royalty Research Fund 07.14.2007 Patient-specific speech processing designs based on neural survival patterns (#3652) Role: PI	University of Washington	07.15.2006 –
F32 DC05883 09.03.2005 Channel interaction in cochlear implant subjects Role: Principal Investigator	NIH (NIDCD)	09.03.2002 –

Consultant

Consultant, *NIH NPP Contract*. 01.2010 to present.

6. PROFESSIONAL OFFICES AND AWARDS

Program Committee (member) Association for Research in Otolaryngology (2012-present)

Editorial Service

Grant Reviewer

National Institutes of Health (NIH), Small business innovative research grants
American Academy of Audiology (AAA)
University of Washington Institute of Translational Health Sciences (ITHS)
The Royal National Institute for Deaf People
American Auditory Society Mentored student travel awards

Ad-hoc Reviewer

National Institutes of Health (NIH), National Institute for Deafness and other
Communication Disorders (NIDCD), Communication Disorders Review Committee
(CDRC), phone-in reviewer
Journal of the Association for Research in Otolaryngology
IEEE Transactions in Biomedical Engineering
IEEE Transactions on Neural Systems & Rehabilitation Engineering
Journal of the Acoustical Society of America
Ear and Hearing
Hearing Research
Archives of Otolaryngology
American Journal of Audiology
International Journal of Audiology
Developmental Science

Membership in Professional Societies

American Academy of Audiology (2006-2008)
American Speech-Language-Hearing Association (2005-present)
Certificate of Clinical Competence in Audiology CCC-A (#121024441)
American Auditory Society (2008-present)
Association for Research in Otolaryngology (1998-present)
Society for Neuroscience (2005-2007)

Meeting Sessions Chaired

12th Symposium on Cochlear Implants in Children
Synergy session: How do we assess and advance treatment for poorly performing
CI
patients? (co-moderator)
Symposium at the 36th Annual Midwinter Meeting of the Association for Research in
Otolaryngology (ARO) entitled “Translating Science into Rehabilitation for
People with Hearing Loss” (co-moderator and speaker)

Participation in Workshops

Faculty Fellows Program, University of Washington **2005**

Awards

Visiting Fellowship Clare Hall College, Cambridge University, Cambridge, England,
UK (2011-2012).

National Institutes of Health Predoctoral Traineeship (Hearing and Chemical Senses Training Grant, NIH T32 DC00011. Kresge Hearing Research Institute). (1996-1999)

Mentored student awards

American Auditory Society travel awarded to Eugene Spindler, 2013, Kelley Corcoran, 2013, Kathleen Faulkner, 2009

Conference on Implantable Auditory Prostheses awarded Joshua Goldwyn, 2007, Kathleen Faulkner, 2007, Amberly Nye, 2009

Elaine A. Brockway, M.S., CCC-SLP
P.O. Box 8470, Kent, WA 98042
253-236-4188(h) 206-552-3857 (c)
ebrookway@comcast.net

EDUCATION

University of Wyoming,

M.S. in Communication Disorders, 2006

GPA 3.90. Externships: Kent School District, October through December 2005; LifeCare of Burien skilled nursing facility, January through March 2006.

University of Washington

B.A. in Communication Disorders, 1978

GPA 3.60; cum laude, Phi Beta Kappa

RELATED EXPERIENCE

Clinical Instructor, 2010 to present

University of Washington, Seattle

- *Supervise graduate students during their pediatric practica, both assessment and treatment, in the UW Speech and Hearing Clinic*
- *Co-teach Practicum Class*
- *Instructor and clinic coordinator for Pediatric Speech and Language Evaluations course*

Speech-Language Pathologist, 2004-2005 and 2006-2010

Kent School District, Kent, WA

- *Provided therapy services to students, preschool through eighth grade. High experience with language, articulation, fluency, and social language, with primary placement in an RTI model school.*
- *Shared the SLP Facilitator position demonstrating leadership skills which included recruiting new SLP/SLPA personnel, and coaching/advising 40 SLP team members.*
- *Supervised three SLPAs, three clinical fellows, and one graduate intern*

Extencicare Therapy, Auburn WA

Performed all duties as the Speech-Language Pathologist at a skilled nursing facility. Treated patients with disorders of speech, language, voice, cognition, and swallowing.

Psychologist Assistant/Special Education Records Processor, 2002-2004

Kent School District, Kent, WA

Assisted school psychologists, including administration of academic testing. Received, organized, and entered data from special education paperwork, including SLP paperwork, to create and maintain district records for state compliance.

Speech Language Pathology Assistant, 1996-2002

Kent School District, Kent, WA

Provided therapy to students, preschool through grade 6. Assisted with IEP development, therapy planning, and record keeping. Initiated and led the SLPA team in establishment of a work group that chartered SLPA meetings and the development of additional guidelines regarding the SLPA role within the district.

PROFESSIONAL MEMBERSHIPS AND VOLUNTEER POSITIONS

American Speech-Language-Hearing Association

- *Currently serving as ASHA State Education Advocacy Leader (SEAL) as a liaison between school-based SLPs and our local, state and national organizations*

Washington Speech-Language and Hearing Association

- Member of the WSLHA Schools Committee

University of Washington Department of Speech and Hearing Sciences

- Faculty Advisor for local chapter of NSSLA (student organization under ASHA)
- Mentor for a Mary Gates Leadership Scholarship candidate

Truman Earl Coggins, Ph.D. CCC-SLP

Professor
Speech and Hearing Sciences
University of Washington
1417 N.E. 42nd Street
Seattle, Washington 98105

Education

<u>Institution/Location</u>	<u>Degree Granted</u>	<u>Date</u>	<u>Field of Study</u>
University of Redlands (Redlands, California)	B.S.	1970	Speech-Language Pathology
University of Redlands (Redlands, California)	M.S.	1971	Speech-Language Pathology
University of Wisconsin (Madison, Wisconsin)	Ph.D.	1976	Communication Sciences & Disorders

Ph.D. Dissertation Title

“The Classification of Relational Meaning Expressed in the Early Two-Word Utterances of Down’s Syndrome Children”

Employment

<u>Institution</u>	<u>Position</u>	<u>Dates</u>
University of Washington	Instructor	1974 – 1976
University of Washington	Assistant Professor	1976 – 1983
University of Washington	Associate Professor	1983 – 2007
University of Washington	Professor	2007 – present
Center on Human Development & Disability (UW)	Research Associate	1977 - present
Center on Human Development & Disability (UW)	Head, Speech-Language Pathology	1983 - present
University of Arizona	Clinical Fellow	1987
Sydney University (Australia)	Visiting Fellow	1988

Professional Offices and Awards

Faculty Award Nominee, Distinguished Contribution to Lifelong Learning, University of Washington, May 2002

Fellow, American Speech-Language-Hearing Association, May 2006

UW Committees and Other Duties

University of Washington

Faculty Senate, 1987 – 1989

Search Committee, Developmental-Behavioral Pediatrics, Department of Pediatrics and Clinical Training Unit—Center on Human Development and Disability, 2000 -2001

Peer reviewer, Royalty Research Fund (RRF-1), 1999, 2000, 2001, 2002, 2008

Associate Chair and Graduate Program Coordinator, Department of Speech and Hearing Sciences, 2008 - present

State/National/International

Regional Coordinator/Educator, Speech-Language Pathology, Washington State Fetal Alcohol Syndrome/Diagnostic Prevention Network, 1993 – present

Research Liaison, Washington State Angelman's Syndrome Society, 1998 – 2000

Peer reviewer, Allied Health Special Projects, Health Resources and Services Administration, U.S. Department of Health and Human Services, 2000 – 2003

Scientific Committee, Giornale Italiano delle Disabilita (The Italian Journal of Disabilities), 2000 – present

Program Committee, Annual convention of the American Speech-Language-Hearing Association, New Orleans, Louisiana, November 19-21, 2009

Research Projects, Grants, Contracts

Research Grants

“Early Linguistic and Cognitive Development of Down’s Syndrome Children”

Principal Investigator: Truman E. Coggins

Agency: University of Washington Graduate School Research Grant, 1977.

“The Development of Procedures for Assessing Prelinguistic and Early Linguistic Behaviors in Low Functioning Children”

Principal Investigator: Robert Carpenter, Ph.D.

Co-Investigator: Truman E. Coggins

Agency: Special Education and Rehabilitative Services, U.S. Department of Health and Human Services Education, 1980-1983.

“Assessing Communicative competence of Adult Brain Injured Individuals”

Principal Investigator: Justus Lehmann, M.D.

Senior Investigator: Truman E. Coggins

Agency: Research and Training Grant, School of Medicine, University of Washington, 1985.

“The Value of Repeated Utterances in the Communicative Development of Autistic Children”

Principal Investigator: Truman E. Coggins

Agency: Washington Association of Retarded Citizens, 1986.

“The Effectiveness of a Parent Report Instrument in Assessing the Communicative Development of Infants Born to Drug-Abusing Mothers”

Principal Investigator: Truman E. Coggins

Agency: Washington Association for Retarded Citizens, 1991-1992.

“Social Communicative Abilities of School-Age Children and Adolescents with Fetal Alcohol Syndrome”

Principal Investigator: Truman E. Coggins

Agency: Association for Retarded Citizens of Washington, 1994-1995.

“The Efficacy of Arena Assessment with Developmentally Young Children”

Principal Investigator: Truman E. Coggins

Agency: Research Trust Fund, Washington Association for Retarded Citizens, 1995-1996.

“Treatment of False-Beliefs: Improving Social Communication Deficits in Children with Developmental Disabilities”

Principal Investigator: Lesley B. Olswang, Ph.D.

Co-Investigator: Truman E. Coggins

Agency: Research Trust Fund, Washington Association for Retarded Citizens, 1997-1998.

“Intervening with Children/Adolescents with FAS/ARND”

Principal Investigator: Susan J Astley, Ph.D.

Co-Investigator: Truman E. Coggins

Agency: Centers for Disease Control and Prevention – U.S. Department of Health and Human Services, September 30, 2001 – September 29, 2004.

Amount of Funding: \$1,196,497

“MRI/S in Children with Prenatal Alcohol Exposure”

Principal Investigator: Susan J. Astley, Ph.D.

Consultant: Truman E. Coggins

Agency: National Institute of Alcohol Abuse and Alcoholism (R01AA12915-01A1), March 01, 2002 – February 28, 2005.

Amount of Funding: \$992,691

Training Grants

“Comprehensive Training in Mental Retardation”

Principal Investigator: Gerald LaVeck, M.D.

Speech-Language Pathologist: Truman Coggins, Ph.D.

Agency: Maternal and Child Health Bureau, U.S. Department of Health and Human Services, July 1, 1976 – June 30, 1981

Amount of Funding: \$5,928,833

“Comprehensive Training in Mental Retardation”

Principal Investigator: Clifford J. Sells, M.D.

Discipline Head: Truman Coggins, Ph.D.

Agency: Maternal and Child Health Bureau, U.S. Department of Health and Human Services, July 1, 1981 – June 30, 1986

Amount of Funding: \$5,489,661

“Comprehensive Training in Mental Retardation”

Principal Investigator: Clifford J. Sells, M.D.

Discipline Head: Truman Coggins, Ph.D.

Agency: Maternal and Child Health Bureau, U.S. Department of Health and Human Services, July 1, 1986 – June 30, 1990

Amount of Funding: \$4,990,601

“Comprehensive Training in Mental Retardation”

Principal Investigator: Forrest C. Bennett, M.D.

Discipline Head: Truman Coggins, Ph.D.

Agency: Maternal and Child Health Bureau, U.S. Department of Health and Human Services, July 1, 1990 – June 30, 1995

Amount of Funding: \$4,536,910

“Interdisciplinary Leadership Training in Neurodevelopmental and Related Disabilities”

Principal Investigator: John F. McLaughlin, M.D.

Discipline Head: Truman E. Coggins, Ph.D.

Agency: Health & Human Services, Health Resources & Services Administration Maternal and Child Health Bureau, July 1, 2001 – June 30, 2006,

Amount of Funding: \$4,050,000

“Interdisciplinary Leadership Training in Neurodevelopmental and Related Disabilities”

Principal Investigator: John F. McLaughlin, M.D.

Discipline Head: Truman E. Coggins, Ph.D.

Agency: Health & Human Services, Health Resources & Services Administration Maternal and Child Health Bureau, July 1, 2011 – June 30, 2016,

Amount of Funding: \$3,768, 000

“Washington State Fetal Alcohol Syndrome Diagnostic and Prevention Network”

Program Co-Directors: Sterling K. Clarren, M.D. & Susan J. Astley, Ph.D.

Speech-Language Pathologist: Truman E. Coggins, Ph.D.

Agency: Division of Alcohol and Substance Abuse, Washington State Department of Social and Health Services. 1995-1996; 1996-1997; 1997-1998; 1998-1999; 1999-2000;

“Washington State Fetal Alcohol Syndrome Diagnostic and Prevention Network”

Program Director: Susan J. Astley, Ph.D.

Speech-Language Pathologist: Truman E. Coggins, Ph.D.

Agency: Division of Alcohol and Substance Abuse, Washington State Department of Social and Health Services. 2000-2001; 2001-2002; 2002-2003; 2003-2004; 2004-2005; 2005-2006; 2006-2007; 2007-2008; 2008-2009; 2009-2010; 2010-2011; 2011-2012

Amount of Funding: 2005-2006 (\$354,000)
2006-2007 (\$354,000)

“Association of University Centers on Disability/Social Security Administration Pediatric Medical Units Project”

Program Director: Jeff F. McLaughlin, M.D.

Speech-Language Pathologist: Truman E. Coggins, Ph.D.

Agency: Social Security Administration

Amount of Funding: 2006-2007 (\$314,999) 2007-2008 (\$300,000)

Direction of Student Theses and Research Projects

Committee Chair

- Judith Morrison, "Spontaneous Imitations of Down Syndrome Children: A Lexical Analysis" 1978. (Master's Thesis).
- Janet Guthrie, "Assessing Communicative Intents in Young Children: Structured Observation or Elicitation Tasks?" 1984. (Master's Thesis).
- Janelle Platt, "Social-Action Game Comprehension in Prelinguistic Children: Levels of Participation and Effect of Adult Structure" 1987. (Master's Thesis).
- Vera Kilich, "Assessing the Transition from Context-Dependent to Context-Independent Comprehension During the Second Year of Life" 1991. (Master's Thesis).
- Jodi Rosenbalm, "Stability of Emerging Communicative Behaviors" 1994. (Master's Thesis).
- Laura Sargent, "The Effectiveness of a Story Completion Method to Elicit Emotion Words in Preschool and Young School-Age Children" 1994. (Doctoral Dissertation).
- Kathleen Larson, "The Use of Narrative Productions to Elicit Emotion Words in Preschool Children" 1994. (Undergraduate Honor's Thesis).
- Summer Smith, "Examining Second-Order Reasoning in School-Age Children and Adolescents with Fetal Alcohol Syndrome" 1998. (Undergraduate Honor's Thesis).
- Jennifer Defiglia, "Narrative Productions of School-Aged Children with Fetal Alcohol Syndrome" 2000. (Undergraduate Honor's Thesis).
- Eileen Sheldon, "The Clinical Utility of Hypothetical Tasks in Sampling Social Performance" 2001. (Undergraduate Honor's Thesis).
- Shawna Himeda "The Clinical Utility of Analog Tasks in Sampling Social Performance" 2001. (Undergraduate Honor's Thesis).
- Michelle Meeks, "The Observer in Observational Research" 2002. (Undergraduate Honor's Thesis).
- Kate Goodwin, "Establishing Inter-Judge Agreement for Narrative Discourse of School Age Children". 2003. (Master's Thesis).
- Emily Fuller, "Identifying Differences in Pronoun Reference Strategies of Children with Fetal Alcohol Spectrum Disorders and Their Typically Developing Peers" 2004. (Undergraduate Honor's Thesis)
- Andrea Sedgley, "Pronoun Variability in the Narrative Discourse of School-Age Children with Fetal Alcohol Syndrome" 2004. (Undergraduate Honor's Thesis).
- Amy Costanza-Smith, "An Investigation of Working Memory, Language Production and Task Demands in School-Age Children" 2004. (Doctoral Dissertation).
- Melisha Gronely, "Prompted Story Retelling in Children with Fetal Alcohol Spectrum Disorders" 2005. (Undergraduate Honor's Thesis)
- Stacy Underwood, "Inter-Observer Reliability for the Home Observation for Measurement of the Environment" 2005. (Undergraduate Honor's Thesis).
- Laura Snow, "False Belief Understanding in a Population of Low-SES Preschoolers: The Role of Language Development and Home Environment" 2006. (Doctoral Dissertation)
- Jessica Grittner, "Nominal Reference Errors as a Classification Tool for Children with Fetal Alcohol Spectrum Disorders" 2008. (Master's Thesis)
- Lisa Island, "Measuring Generalization in Social Skills Interventions for Children with Autism: A Guide for Clinicians" 2010 (Master's Thesis)

John Thorne, “Tallying Reference Errors in Narratives: Integrative Language Function, Impairment, and Fetal Alcohol Spectrum Disorders” 2010 (Doctoral Dissertation)

Committee Member

Douglas Greenberg, 1975 (Master’s Thesis).
Howard Goldstein, 1978 (Master’s Thesis).
Anne Vankleeck, 1978 (Ph.D. Dissertation).
Lesley Olswang, 1978 (Ph.D. Dissertation).
Ann Mastergeorge, 1980 (Master’s Thesis).
Nancy Scherer, 1981 (Ph.D. Dissertation).
Annette Schwabe, 1984 (Master’s Thesis).
Rebecca Moellman-Landa, 1985 (Ph.D. Dissertation).
Naomi Hashimoto, 1987 (Master’s Thesis).
Pamela Crooke, 1992 (Ph.D. Dissertation).
Gaylloyd Pinder, 1992 (Ph.D. Dissertation).
Anita Jones, 1992 (Master’s Thesis).
Cheryl Mercer, 1993 (Master’s Thesis).
Janine Kramarik, 1993 (Master’s Thesis).
Barbara Rodriguez, 1997 (Ph.D. Dissertation).
Geraldyn Timler, 1998 (Ph.D. Dissertation).
Kendra Powell, 2000 (Master’s Thesis).
Bethany Melstrom, 2001 (Master’s Thesis).
James Mancini, 2001 (Master’s Thesis).
Jill Beilinson, 2001 (Master’s Thesis).
Kathleen Murphy, 2002 (Master’s Thesis).
Krisztina Zajdo, 2002 (Ph.D. Dissertation).
Christopher Waters, 2002 (Master’s Thesis).
Mei-hui Lu, 2002 (Ph.D. Dissertation).
Dorothy Handley-More, 2002 (Master’s Thesis).
Brittany Struve, 2003 (Master’s Thesis).
Amy Donaldson, 2005 (Ph.D. Dissertation).
Abbie Munce, 2005 (Master’s Thesis).
Lisolette Svensson, 2006 (Ph.D. Dissertation).
Brittany Olsen-Boblitt, 2010 (Master’s Thesis).
Terry Cox, 2012 (PhD Dissertation)

Participation in Teaching Development

UW Provost’s Faculty Workshops on Teaching and Learning: Techniques for Effective Lecturing, August, 2001.
UW Provost’s Faculty Workshops on Teaching and Learning: Enhancing Learning Through Uses of Technology, August, 2002.
UW Provost’s Faculty Workshops on Teaching and Learning: Leading Effective Seminars and Discussion Techniques, August, 2003.
Quarterly Forum on Teaching and Learning /Center for Instructional Development and Research, 2001 – 2004.

Student Mentored Awards

Jody Rosenbalm, American Speech-Language-Hearing Foundation Graduate Scholar Award (1995).
Summer Smith, American Speech-Language-Hearing Foundation Graduate Scholar Award (1998).
Amy Costanza-Smith, Bamford-Lahey Children's National Graduate Foundation Award (2001-2002).
Amy Costanza-Smith, American Speech-Language-Hearing Foundation Graduate Research Award (2002-2003).
Amy Costanza-Smith, Gatzert Child Welfare Fellowship Award, Graduate School, University of Washington (2003-2004).
John Thorne, Society Research Child Language Disorders Research Award, University of Wisconsin (2008)

Editorial Services

Consulting Editor – *American Journal of Mental Deficiency* (1976 – 1978).
Editorial Consultant – *Journal of Speech and Hearing Research* (1980 – 1982).
Editorial Consultant – *Journal of Speech and Hearing Disorders* (1983 – 1985).
Editorial Consultant – *American Journal of Mental Retardation* (1990 – 1992).
Editorial Consultant – *Language, Speech, and Hearing Services in Schools* (1993 – present).
Consultant – *Journal of Speech Language Hearing Research* (2001 – present).
Consultant – *Infants and Young Children* (2004-2006)

Peer Reviewed and Invited Journal Publications

- Coggins, T.** (1979). Relational meaning encoded in the two-word utterances of stage I Down's syndrome children. *Journal of Speech and Hearing Research*, 22, 166-178.
- Coggins, T. & Morrison, J.** (1981). Spontaneous imitations of Down's syndrome children: A lexical analysis. *Journal of Speech and Hearing Research*, 24, 303-308.
- Coggins T. & Carpenter, R.** (1981). The communicative intention inventory: A system for observing and coding children's early intentional communication. *Applied Psycholinguistics*, 2, 235-251.
- Scherer, N. & **Coggins, T.** (1982). Responses to requests in the dialogues of mothers and their stage I children. *Journal of Speech and Hearing Research*, 25, 58-64.
- Coggins, T. & Stoel-Gammon, C.** (1982). Clarification strategies used by four Down's syndrome children for maintaining conversational interaction. *Education and Training of the Mentally Retarded*, 17, 58-65.
- Carpenter, R. Mastergeorge, A. & **Coggins, T.** (1983). The acquisition of communicative intentions in infants eight to fifteen months of age. *Language and Speech*, 26, 101-116.
- Coggins, T., Carpenter, R. & Owings, N.** (1983). Examining early intentional communication in Down's syndrome and non-retarded children. *The British Journal of Disorders of Communication*, 18, 99-107
- Olswang, L. & **Coggins, T.** (1984). The effects of adult behaviors on increasing language delayed children's production of early relational meanings. *The British Journal of Disorders of Communication*, 19, 99-107.
- Coggins, T. Olswang, L. & Guthrie, J.** (1987). Assessing communicative intentions in young children: Low structured observation or elicitation tasks. *Journal of Speech and Hearing Disorders*, 52, 44-

- Coggins, T. & Olswang, L. (1987).** The pragmatics of generalization. Seminars in Speech and Language, 18, 283 – 302.
- Coggins, T., Morisset, C., Krasney, L., Fredrickson, R., Holm, V. & Raisys, V. (1988).** Does fenfluramine treatment enhance the cognitive and communicative functioning of autistic children? Journal of Autism and Developmental Disorders, 18, 425-434.
- Coggins, T. & Frederickson, R. (1988).** The communicative role of a highly frequent repeated utterance in the conversations of an autistic boy. Journal of Autism and Developmental Disorders, 18, 687-694.
- Platt, J. & Coggins, T. (1990).** Comprehension of social-action games in prelinguistic children: Levels of participation and effect of adult structure. Journal of Speech and Hearing Disorders, 55, 315-26.
- Shaw, S. & Coggins, T. (1991).** Inter-observer reliability using the phonetic level evaluation with severely and profoundly hearing-impaired children. Journal of Speech and Hearing Research, 34, 1001-1011.
- Coggins, T. (1991).** Bringing context back into assessment. Topics of Language Disorders, 11, 43-54.
- Coggins, T. & Sargent, L. (1992).** Obtaining and using new knowledge: Determining the relationship between theory and application. Topics in Early Childhood Special Education, 12(1), 44-53.
- Sargent, L. & Coggins, T. (1993).** Internal state language in young normal and clinical populations: Theories, development and clinical implications. Infant-Toddler Intervention, 3, 256-290.
- Coggins, T., Friet, T. & Morgan, T. (1998).** Analyzing narrative productions in older school-age children and adolescents with Fetal Alcohol Syndrome: An experimental tool for clinical application. Clinical Linguistics and Phonetics, 12, 221-236.
- Cole, K., Coggins, T. & Vanderstoep, C. (1999).** The influence of language/cognitive profile on discourse intervention outcome. Language Speech Hearing Services in Schools, 30, 61-68.
- Olswang, L., Coggins, T. & Timler, G. (2001).** Outcome measures for school-age children with social communication problems. Topics in Language Disorders, 22, 50-73.
- Coggins, T., Olswang, L, Carmichael Olson, H. & Timler, G. (2003).** On becoming socially competent communicators: The challenge for children with fetal alcohol syndrome. International Review of Research in Mental Retardation, 27, 121-150.
- Handley-More, D., Deitz, J., Billingsley, F. & Coggins, T. (2003).** Facilitating written work using computer word processing and word prediction. American Journal of Occupational Therapy, 57, 139-151.
- Timler, G. Olswang, L. & Coggins, T. (2005).** “Do I know what I need to do?” A social communication intervention for children with complex clinical profiles. Language, Speech and Hearing Services in Schools, 36, 73-84.

- Timler, G., Olswang, L. & **Coggins, T.** (2005). Social communication interventions for preschoolers: targeting peer interactions during peer group entry and cooperative play. Seminars in Speech and Language, 26(3), 170-180.
- Olswang, L., Svensson, L., **Coggins, T.**, Beilinson, J., & Donaldson, A. (2006). Reliability issues and solutions for coding social communication events in classroom settings. Journal of Speech, Language, and Hearing Research, 49, 1058-1071.
- Coggins, T.**, Timler, G. & Olswang, L. (2007). A state of double jeopardy: Impact of prenatal alcohol exposure and maltreatment on the social communicative abilities of school-age children with fetal alcohol spectrum disorder. Language, Speech, Hearing Services in Schools, 38, 1-11
- Thorne, J. **Coggins, T.**, Carmichael Olson, H. & Astley, S. (2007). Exploring the utility of narrative analysis in diagnostic decision-making: Elaboration, reference strategy, and fetal alcohol spectrum disorder. Journal of Speech, Language, and Hearing Research, 459-474.
- Olswang, L., **Coggins, T.** & Svensson, L. (2007). Evaluating Social Communication in the Classroom: Observing Manner and Duration of Performance. Topics in Language Disorders, 27, 107-125
- Reed, V., Patchell, F., **Coggins, T.** & Hand, L. (2007). Informativeness of the spoken narratives of younger and older adolescents with specific language impairment and their counterparts with normal language. Clinical Linguistic and Phonetics, 21, 953-960.
- Thorne, J. & **Coggins, T.** (2008). A diagnostically promising technique for tallying nominal reference errors in the narratives of school-aged children with fetal alcohol spectrum disorders. International Journal of Language and Communication Disorders, 43 (5), 579-594.
- Astley, S., Ayward, E, Olson, H., Kerns, K., Brooks, A., **Coggins, T.**, Davies, J. Dorn, S, Gendler, B., Jirikowic, T., Maravillia, K. & Richards, T. (2009). Functional magnetic resonance imaging outcomes from a comprehensive magnetic resonance study of children with fetal alcohol spectrum disorders. Journal of Neurodevelopmental Disorders, 1, 61-80.
- Astley, S., Carmichael Olson, H., Kerns, K., Brooks, A., Aylward, E. **Coggins, T.**, Davis, J., Dorn, S., gendler, B., Jirkowic, T., Kraegel, P., Maravilla, K. & Richards, T. (2009). Neuropsychological and behavioral outcomes from a comprehensive magnetic resonance study of children with fetal alcohol spectrum disorders. Canadian Journal of Clinical Pharmacology, 16 (1) e178-201. March 27, 2009.
- Astley, S., Richards, T. Ayward, E, Olson, H., Kerns, K., Brooks, A., **Coggins, T.**, Davies, J., Jirikowic, T., Maravillia, K. (2009). Magnetic resonance spectroscopy outcomes from a comprehensive study of children with fetal alcohol spectrum disorders. Magnetic Resonance Imaging, 27. 760-778.
- Astely, S., Aylward, E., Carmichael Olson, H., Kearns, K., Brooks, A., **Coggins, T.**, Davies, J., Dorn, S., Gendler, B., Jirikowic, T., Kragel, P., Maravilla, K. & Richards, T. (2009). Alcoholism: Clinical and Experimental Research, 33 (10), 1-19.
- Coggins, T.** (2011). Towards understanding and treating children with prenatal alcohol exposure and fetal alcohol spectrum disorders. Perspectives on Language Learning and Education, 18 (3), 78-86.

Invited Book Chapters

- Coggins, T.** & Carpenter, R. (1979). Introduction to the area of language development. In M. Cohen & P. Gross (Eds.), The Developmental Resource: Behavioral Sequences for Assessment and Program Planning (Volume 2). New York: Gruen and Stratton.
- Coggins, T.** & Sandall, S. (1983). The communicatively handicapped infant: Application of normal language and communication development. In R. Dubose & G. Garwood (Eds.), Educating Handicapped Infants. Baltimore, MD: Aspen.
- Coggins, T.** & Olswang, L. (1987). The pragmatics of generalization. In R. Ingham (Ed.), Strategies for Transfer and Maintenance of Therapeutic Progress in School Children. New York: Thieme-Stratton, Inc.
- Coggins, T.** (1998). Gathering worthwhile clinical information. In A. Wetherby, S. Warren & J. Reichle (Eds.), Transitions in Prelinguistic Communication: Preintentional to intentional and Presymbolic to Symbolic. Baltimore: Paul H. Brookes.
- Coggins, T.** and Timler, G. (1999). Assessing language and communicative development: The role of the speech-language pathologist. In M. Guralnick (Ed.), Interdisciplinary Clinical Assessment of Young Children with Developmental Disabilities. Baltimore: Paul H. Brookes.
- Hay, A., **Coggins, T.**, Cook, D., Dinno, N., Folsom, R., Holm, V., Lucas, B. & Wendel, S. (1999). A child with Down syndrome: The interdisciplinary process. In M. Guralnick (Ed.), Interdisciplinary Clinical Assessment of Young Children with Developmental Disabilities. Baltimore: Paul H. Brookes.
- Holm, V., Douglas, T., Lucas, B., Washington, K., Hay, A. & **Coggins, T.** A child with Prader-Willi syndrome: (1999). In M. Guralnick (Ed.), Interdisciplinary Clinical Assessment of Young Children with Developmental Disabilities. Baltimore: Paul H. Brookes.
- Dinno, N., Hay, A., Strong, E., **Coggins, T.**, Wendel, S. & Cook, D. A child with fragile x syndrome. (1999) In M. Guralnick (Ed.), Interdisciplinary Clinical Assessment of Young Children with Developmental Disabilities. Baltimore: Paul H. Brookes.
- Coggins, T.** & Thorne, J. (2010). Substance abuse and childhood language disorders. In J. Damico, M. Ball & N Muller (Eds.), The Handbook of Language and Speech Disorders. Boston: Blackwell Publishers.
- Thorne, J. & **Coggins, T.** (In press). A multilingual perspective on children with fetal alcohol spectrum disorders. In J. Patterson & B. Rodriguez (Eds.), Multilingual Perspectives on Child Language Disorders. Multilingual Matters.

Books

- Olswang, L., Stoel-Gammon, C., **Coggins, T.** & Carpenter, R. (1987). Assessing Prelinguistic and Early Linguistic Behaviors in Developmentally Young Children. Seattle, WA: University of Washington Press.

Invited Presentations

- Coggins, T.** “Examining the Communicative Abilities of Autistic Children: A Tale of Two Studies”. Department of Speech and Hearing Sciences, University of Arizona, Tucson, Arizona, October 29, 1987.
- Coggins, T.** “Comprehension of Social-Action Games in Prelinguistic Children: Levels of Participation and Effect of Adult Structure”. Australian Association of Speech and Hearing, Brisbane, Queensland, May 17, 1988.
- Coggins, T.** “Assessing Prelinguistic and Early Linguistic Behaviors in Developmentally Young Children”. Australian Association of Speech and Hearing, Sydney, NSW, Australia, December, 1988.
- Coggins, T.** “An Assessment Protocol for Young Children At-Risk For Impaired Language Development”. Washington State Speech and Hearing Association, Spokane, Washington, October 14, 1989.
- Coggins, T.** “Assessing Communicative and Linguistic Behavior in Developmentally Young Children”. College of Education, University of Oregon, Eugene, Oregon, June 29, 1990.
- Coggins, T.** “Establishing Typical and Optimal Performance in Language Assessment”. Sixth Annual Conference on Issues in Language and Deafness, Boys Town National Research Hospital, Omaha, Nebraska, September 28, 1991.
- Coggins, T.** “Assessing Social Communication in Adolescents with Fetal Alcohol Syndrome”. International Conference on Overcoming and Preventing Secondary Disabilities in Fetal Alcohol Syndrome and Fetal Alcohol Effects, University of Washington, September 4, 1966.
- Coggins, T.** “Mental State Reasoning in Youngsters with Fetal Alcohol Syndrome”. Research Society on Alcoholism, Center for Disease Control and Prevention, U.S. Department of Human and Health Services, San Francisco, California, July 21, 1997
- Coggins, T.** “Assessment of Language and Social-Communication in Fetal Alcohol Syndrome.” Colorado State Fetal Alcohol and Substance Coalition (Co-Sponsored by the U.S. Department of Human and Health Services), Breckenridge, Colorado, September, 1997
- Coggins, T.** “Trying to Understand Why People Act the Way They Do: Analyzing Mental States in School-Age Children and Adolescents with Fetal Alcohol Syndrome.” Washington State Alcohol and Drug Abuse Coalition, Washington State University (Pullman), April, 1998.
- Coggins, T.** “Assessing Central Nervous System Dysfunction and Developing Treatment Strategies for Children with Fetal Alcohol Syndrome and Related Conditions.” Provincial Health Care, Children’s and Women’s Health Centre, Vancouver, British Columbia. February 19, 1999.
- Coggins, T.,** Clarren, S. & Jirachoi, T. “Assessing Social-Communicative Behavior in Alcohol-Affected Individuals Over the Life Span: The Role of the Psychologist, Occupational Therapist and Speech-Language Pathologist”. Washington State Diagnostic and Prevention Network, University of Washington, March 11, 1999.
- Coggins, T.** “Understanding and Treating Social-Communicative Deficits in Prenatal Alcohol Exposed Youngsters”. Presentation to the 3rd Annual Eugene Ouellette Lecture Series, University of Redlands, Redlands, California, April 1, 1999.

- Coggins, T.** “Fetal Alcohol Syndrome: Theory of Mind and Social Reasoning.” Annual Convention of the Washington Speech and Hearing Association, Olympia, Washington, October 8, 1999.
- Coggins, T.** “Using Language to Win Friends and Influence People: Why Children with Fetal Alcohol Syndrome Don’t”. Washington State CASA, Yakima, Washington, October 22-24, 1999.
- Coggins, T.** “Understanding Social Communication and Social Problems of Children with Fetal Alcohol Syndrome and Related Conditions”. Annual conference of the Speech, Language & Hearing Association of Alberta. Sheraton Cavalier Hotel, Calgary, Alberta. October 26-27, 2000.
- O’Malley, K. & **Coggins, T.** “Neurodevelopmental Psychiatry – Language Disorders in Children with Fetal Alcohol Spectrum Disorder”. Presentation to Child Psychiatry Rounds, Children’s Hospital & Medical Center, January 5, 2001.
- Coggins, T.** “Exploring Language Performance in Fetal Alcohol Exposed Children: The Role of Social Context”. National Congress on Disability, Treatment & Inclusion. Padova, Italy, May 10-12, 2001.
- Coggins, T.** “Using Language for Social Success: The Challenge for Children with Fetal Alcohol Spectrum Disorders”. Department of Social and Health Services, Anchorage, Alaska, February 20-22, 2002.
- Coggins, T.** “Becoming Socially Competent Communicators”. Keynote speaker, Annual Convention, Alaska Speech, Language & Hearing Association. Fairbanks, Alaska, September 20-22, 2002.
- Donaldson, A., Olswang, L. & **Coggins, T.** Social Interaction Skills of Children with Autism. Presentation to the International Meeting for Autism Research, Orlando, Florida, November, 2002.
- Coggins, T.** “Understanding the Language Difficulties of Children with Challenging Behaviors”. Duncan Seminar Series, Seattle, Washington, April 2, 2004.
- Coggins, T.** “Understanding and Treating the Social Communicative Deficits in Children with Fetal Alcohol Spectrum Disorders. Presentation to Child Health and Welfare, Royal Maternity Hospital, Belfast, Northern Ireland, September 21, 2004.
- Coggins, T.** “What Students Want to Know about Fetal Alcohol Spectrum Disorders”. Presentation to the National Student Speech Hearing Language Association, Annual convention of the American Speech-Language-Hearing Association, San Diego, California, November 2005.
- Coggins, T.** “Social Communication in Children with Complex Histories and Challenging Environments”. 4th Annual Conference Families for Russian and Ukrainian Adoption Conference. Redmond, Washington, April 28, 2007
- Coggins, T. & Olswang, L.** “Conducting Research in Disorders of Social Communication: Some Methodological Lessons we have Learned from Children with Fetal Alcohol Spectrum Disorders. Symposium for Research in Child Language Disorders, University of Wisconsin (Madison), June 9, 2007

Coggins, T. “Documenting and Treating Social Communication Deficits in Children with Fetal Alcohol Spectrum Disorders”. Symposium for Texas Tech University Health Sciences Center Chapter of the National Student Speech, Language Hearing Association, Lubbock, Texas, March 7, 2008.

Refereed Abstracts and Presentations

Coggins, T. “Relational meaning encoded in the two-word utterances of stage I Down’s syndrome children”. Presentation to the annual convention of the American Speech-Language-Hearing Association, Detroit, Michigan, November, 1977.

Coggins, T. & Carpenter, R. “The Communicative Development Inventory: A System for Observing and Coding Children’s Early Intentional Communication”. A presentation to the annual convention of the American Speech-Language-Hearing Association, San Francisco, California, November 1978.

Mastergeorge, A., Carpenter, R. & **Coggins, T.** “The Acquisition of Communicative Intentions in Infants Eight to Fifteen Months of Age”. A presentation to the annual convention of the American Speech-Language-Hearing Association, Los Angeles, California, November 1981.

Coggins, T. & Olswang, L. “Spontaneous Imitation: A Language Learning Strategy”. Special Session on Language, annual convention of the American Speech-Language-Hearing Association, Los Angeles, California, November, 1981.

Coggins, T. “The Effect of Adult Linguistic Behaviors on Early Language Learning”. Presentation to the annual convention, American Speech-Language-Hearing Association, Toronto, Canada, November 1982.

Olswang, L., Stoel-Gammon, C., **Coggins, T.** & Carpenter, R. “Assessing Prelinguistic and Early Linguistic Behaviors in Developmentally Young Children”. Short course presentation to the annual convention of the American Speech-Language-Hearing Association, Cincinnati, Ohio, November 1983.

Coggins, T. & Olswang, L. “Assessing Early Communicative Intents: Naturalistic Observations or Elicitation Tasks?” Presentation to the annual convention of the American Speech-Language-Hearing Association, Washington, D.C., November 1985.

Coggins, T. “The Pragmatic Role of a Highly Frequent Repeated Utterance in the Conversations of an Autistic Boy”. Paper presented to the Fourth International Congress for the Study of Child Language, Lund, Sweden, July, 1987.

Coggins, T. “Conversational Functions of a Highly Frequent Repeated Utterance”. Paper presented to the annual convention of the American Speech-Language-Hearing Association, New Orleans, Louisiana, November, 1987.

Olswang, L., Warren, S. & **Coggins, T.** “Treating Language Impaired Children: A Decade of Research in Review.” Seminar presented to annual convention of the American Speech-Language-Hearing Association, New Orleans, Louisiana, November, 1987.

- Coggins, T.** “Linguistic Profiles of Children with Down’s Syndrome: The Relationship between Cognition and Communication”. A presentation to the Down’s Syndrome Association, Sydney, NSW, Australia, September, 1988.
- Coggins, T.** “An Assessment Protocol for Young Children At-Risk for Impaired Language Development”. Annual convention of the Washington Speech and Hearing Association, Spokane, Washington, October, 1989.
- Thompson, C., Kearns, K., Warren, S., Butcher, J. & **Coggins, T.** “Treatment Efficacy Research in Communication Disorders: Recent Advances and Future Directions”. Short Course, annual convention of the American Speech-Language-Hearing Association, Seattle, Washington, November, 1990.
- Alvares, R., Brinton, B., Duchan, J., Fujiki, M. & **Coggins, T.** “Context and Language Development – Putting it All Back In”. Mini-seminar presentation to the annual convention of the American Speech-Language-Hearing Association, Seattle Washington, November, 1990.
- Coggins, T.** & Sargent, L. “Internal State Language in Young Normal and Atypical Children”. Presentation to the annual convention of the American Speech-Language-Hearing Association, San Antonio, Texas, November 1992.
- Sargent, L. & **Coggins, T.** “Mommy’s Mad: Assessing Emotion Words in Young School-Age Children”. Presentation to the annual convention of the American Speech-Language-Hearing Association, New Orleans, November 1994.
- Coggins, T.** & Rosenbalm, J. “Stability of Emerging Communicative Behaviors”. Presentation to the annual convention of the American Speech-Language-Hearing Association, New Orleans, Louisiana, November, 1994.
- Coggins, T.** “Assessing Children At-Risk for Fetal Alcohol Syndrome”. Seminar presentation to the annual convention of the American Speech-Language-Hearing Association, Seattle, Washington, November 22, 1996.
- Cole, K., Mercer, C. & **Coggins, T.** “The Influence of Language/Cognitive Profile on Pragmatic Development”. Presentation to the 19th Annual Symposium on Research in Child Language Disorders, University of Wisconsin/Madison, May 30, 1998.
- Coggins, T.**, Olswang, L., Timler, G., Schwartz, I. & Garfnkle, A. “Theory of Mind: Treating Children with Autism and Fetal Alcohol Syndrome.” Mini-seminar presented to the annual convention of the American Speech-Language-Hearing Association, San Antonio, Texas, November, 1998.
- Coggins, T.** “Trying to Understand Why People Act the Way They Do: Analyzing Mental States in School-Age Children and Adolescents with Fetal Alcohol Syndrome.” A presentation to the Washington State Alcohol and Drug Abuse Coalition, Washington State University, April, 1998.
- Coggins, T.** “Understanding and Treating Social-Communicative Deficits in Prenatal Alcohol Exposed Youngsters”. Presentation to the 3rd Annual Eugene Ouellette Lecture Series, University of Redlands, Redlands, California, April 1, 1999.

- O'Malley, K., **Coggins, T.** & Olswang, L. "Language Abnormalities in Fetal Alcohol Syndrome". Paper presented to the UK Conference on Behavioral Phenotypes, Birmingham, England, November, 1999.
- Coggins, T.** & Olswang, L. "Fetal Alcohol Syndrome: Theory of Mind and Social Reasoning." Annual Convention of the Washington Speech and Hearing Association, Olympia, Washington, October 8, 1999.
- Coggins, T.** "Using Language to Win Friends and Influence People: Why Children with Fetal Alcohol Syndrome Don't". Annual conference of the Washington State Court Appointed Special Advocate/Guardian Ad-Litem, Yakima, Washington, October 22-24, 1999.
- Coggins, T.**, Olswang, L., Timler, G. & Carmichael Olson, H. "Are Social-Communicative Deficits Theory of Mind Deficits?". Symposium on Research in Child Language Disorders, University of Wisconsin (Madison), June 1-3, 2000.
- Timler, G., Olswang, L., **Coggins, T.**, Costanza-Smith, A. & Mancini, J. "Assessing Social Communication Across Contexts: Implications for Fetal Alcohol Syndrome". Seminar to the annual convention of the American Speech-Language-Hearing Association, Washington D.C., November 16-19, 2000.
- Patchell, F., Reed, V., **Coggins, T.** & Hand, L. "Theory of Mind in Australian Adolescents with Specific Language Impairment". Presentation to the annual convention of the American Speech-Language-Hearing Association, New Orleans, LA, November 15-18, 2001.
- Costanza-Smith, A., **Coggins, T.**, Olswang, L. & Timler, G. "Social Behavior of Children with Alcohol Related Disabilities". Symposium on Research in Child Language Disorders, University of Wisconsin (Madison), June 7-9, 2001.
- Donaldson, A., Olswang, L. & **Coggins, T.** "Innovation in Clinical- Research Partnerships: Community Collaboration Through Technology". Presentation to the annual convention of the American Speech-Language-Hearing Association, New Orleans, LA, November 15-18, 2001.
- Costanza-Smith, A., **Coggins, T.** & Olswang, L. "Verbal Working Memory Capacity in Children with Prenatal Alcohol Exposure". Presentation to the annual convention of the American Speech-Language-Hearing Association, New Orleans, LA, November 15-18, 2001.
- Coggins, T.** & Olswang, L. "Exploring Social Communication Deficits in School-Age Children". Scientific paper presented to the Joint Conference of the IX International congress for the Study of Child Language and the Symposium on Research in Child Language Disorders, July 24, 2002, Madison, Wisconsin.
- Costanza-Smith, A. & **Coggins, T.** "Working Memory and Social Communication". Scientific paper presented to the Joint Conference of the IX International congress for the Study of Child Language and the Symposium on Research in Child Language Disorders, July 24, 2002, Madison, Wisconsin.
- Snow, L., **Coggins, T.** & Goodwin, K. "The Value of Narrative Productions in Assessing Later Language in Children with Social Communication Deficits". Scientific paper presented to the Joint Conference of the IX International congress for the Study of Child Language and the Symposium on Research in Child Language Disorders, July 24, 2002, Madison, Wisconsin.

- Costanza-Smith, A., **Coggins, T.** & Seabrook, C. “Processing Time, Working Memory, and Prenatal Alcohol Exposure”. Scientific paper presented to the annual convention of the American Speech-Language-Hearing Association, Atlanta, Georgia, November 23, 2002.
- Donaldson, A., Olswang, L. & **Coggins, T.** “Social-Interaction Skills of Children with Autism”. Presentation to the American Speech-Language-Hearing Association, Atlanta, Georgia, November 22, 2002.
- Olswang, L., Svensson, L., Donaldson, A., Beilinson, J. & **Coggins, T.** “Observing Social Communication in Schools: Reliability Snags and Solutions”. Presentation to the annual convention of the American Speech-Language-Hearing Association, Chicago, Ill, November 2003.
- Thorne, J. & **Coggins, T.** “Semantic Elaboration in Narratives of Children with Fetal Alcohol Spectrum Disorders”. Presentation to the annual convention of the American Speech-Language-Hearing Association, Philadelphia, PA, November 2004
- Costanza-Smith, A. & **Coggins, T.** Investigating the Role of Task Demands in Sentence Production”. Presentation to the annual convention of the American Speech-Language-Hearing Association, Philadelphia, PA, November 2004
- Costanza-Smith, A. & **Coggins, T.** An Investigation of Sentence Production, Working Memory & Task Demands in School-Age Children. 26th annual symposium on Research in Child Language Disorders, Madison, Wisconsin, June 9-11, 2005
- Thorne, J. & **Coggins, T.** Exploring the Utility of Narrative Analysis to aid in the Diagnosis of Fetal Alcohol Spectrum Disorders. 26th annual symposium on Research in Child Language Disorders, Madison, Wisconsin, June 9-11, 2005.
- Donaldson, A., Olswang, L. & **Coggins, T.** Assessing the Self-Initiation Skills of Young Children with Autistic Spectrum Disorders on, Wisconsin, June 9-11, 2005. 26th annual symposium on Research in Child Language Disorders, Madison, Wisconsin, June 9-11, 2005
- Costanza-Smith, A. & **Coggins, T.** Considering the role of visual working memory in sentence production. Presentation to the annual convention of the American Speech-Language-Hearing Association, San Diego, California, November 2005.
- Reed, V., Patchell, F., **Coggins, T.** & Hand, L. Informativeness of the Spoken Narratives of Younger and Older Adolescents with Specific Language Impairment and Their Counterparts with Normal Language. Presentation to the 11th Symposium of the International Clinical Phonetics and Linguistics Association, Dubrovnik, Croatia, May 31 – June 3, 2006.
- Coggins, T.** Impact of Prenatal Alcohol Exposure and Adverse Environments on Social Communication. Presentation to the Northwest Regional Fetal Alcohol Spectrum Disorders Conference. Lynnwood, Washington, October 6, 2006

- Thorne, J. & **Coggins, T.** Discourse Errors as a Signal of CNS Damage in Fetal Alcohol Spectrum Disorder. Presentation to the annual convention of the American Speech-Language-Hearing Association, Miami, Florida, November 17, 2006.
- Olswang, L., **Coggins, T.**, Timler, G. & Svennson, L. Social Communication: Assessing Children with Complex Profiles. A short course presented to the annual convention of the American Speech-Language-Hearing Association, Boston, Massachusetts, November 16, 2007.
- Snow, L. & **Coggins, T.** False belief understanding and language among low SES preschoolers. . Presentation to the annual convention of the American Speech-Language-Hearing Association, Boston, Massachusetts, November 16, 2007.
- Preussner, A., Gronley, M., & **Coggins, T.** The Bus Story narrative: A telling assessment for Fetal Alcohol Spectrum Disorder. Presentation to the annual convention of the American Speech-Language-Hearing Association, Boston, Massachusetts, November 16, 2007.
- Patchell, F., Reed, V., Hand, L. & **Coggins, T.** Does Susie know that Joe knows...? Second Order False Beliefs in Adolescents with Specific Language Impairment and their Counterparts with Normal Language. Presentation for the Joint Conference of the New Zealand Speech-Language Therapists Association and Speech Pathology of Australia, Auckland, New Zealand. May 2008.
- Thorne, J. & **Coggins, T.** Signals of CNS damage in the discourse behavior of school-aged children with prenatal alcohol exposure. Presentation to the 29th annual symposium on Research in Child Language Disorders, Madison, Wisconsin, June 5-8, 2008.
- Preussner, A. & **Coggins, T.** Feasibility of *The Bus Story* as an assessment for FASD. Presentation to the annual convention of the American Speech-Language-Hearing Association, Chicago, Illinois, November 21, 2008.
- Grittner, J., **Coggins, T.**, Thorne, J. & Olswang, L. Classification accuracy of nominal reference errors for fetal alcohol syndrome. Presentation to the annual convention of the American Speech-Language-Hearing Association, New Orleans, LA, November 21, 2009
- Greenslade, K., Weaver, T., & **Coggins, T.** Assessing joint attention and its connection to mental state attributions. Poster session presented at the American Speech-Language-Hearing Association Convention, Philadelphia, PA., November 20, 2010
- Patchell, F., Reed, V., **Coggins, T.**, & Hand, L. Second-order false belief of adolescents with specific language impairment and their typically developing peers: Effects of task . 13th meeting of the International Clinical Phonetics and Linguistic Association, Oslo, Norway June 23-26, 2010.
- Greenslade, K. & **Coggins, T.** Manipulating common ground to assess joint attention and mental state attribution. Poster session presented to the 32nd annual Symposium on Research in Child Language Disorders in Madison, Wisconsin. June 9-11, 2011.
- Greenslade, K. & **Coggins, T.** Assessing joint attention and mental state attribution in autism. Poster session presented at the American Speech-Language-Hearing Association Convention, San Diego, California ., November 18, 2011.

Greenslade, K. & **Coggins, T.** Adult-supported intention-reading in children with high functioning autistic spectrum disorders. IMFAR ---June 2012.

Thorne, J. & **Coggins, T.** (2012) WSHA

Invited Non-Peer Reviewed Publications

Scherer, N., Owings, N. & **Coggins, T.** (1981). Producing contingent utterances in late stage I: Down's syndrome children's responses to mothers' requests in conversation. Papers and Reports on Research in Child Language Disorders (Volume 1). Madison, WI: University of Wisconsin Press.

Carpenter, R. & **Coggins, T.** (1983). Clinical utilization of microprocessor technology for collection and organization of behavioral observational data. Papers and Reports on Research in Child Language Disorders (Volume 3). Madison, WI: University of Wisconsin Press.

Astely, S., Clarren, S., Carmichael Olson, H., Beck, S., Clarren, SGB, **Coggins, T.**, Gelo, J. & Jirikowic, T. (2000). The Washington State FAS Diagnostic & Prevention Network of Clinics: Cognitive/behavioral Profile of the First 1,000 Patients Diagnosed. NIAAA, Bethesda, MD.

Clarren, S., Astley, S., Carmichael Olson, H., Beck, S., Clarren, SGB, **Coggins, T.**, Gelo, J. & Jirikowic, T. (2000) The Washington State FAS Diagnostic Prevention Network of Clinics: Alcohol Exposure and Physical Findings as Markers of Wide-Ranging CNS Compromise. NIAAA, Bethesda, MD.

Coggins, T., Olswang, L. & Timler, G. (2007). Treating Social Communication Deficits in Children with Fetal Alcohol Spectrum Disorders O'Malley, K. (Ed.), ADHD and Fetal Alcohol Spectrum Disorder (FASD): The Diagnostic, Natural History and Therapeutic History Issues through the Lifespan. Nova Science Publishers.

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EDUCATION:

Ph. D. Speech & Hearing Sciences
University of Washington
Seattle, WA (1992)

M.S. Speech Pathology
University of Washington
Seattle, Washington (1980)

B.A. Linguistics
State University of New York
Binghamton, New York (1974)

CURRENT POSITIONS:

2007 – present	Co-P.I.; Triadic Eye Gaze Project; Department of Speech & Hearing Sciences, University of Washington, Seattle, WA 98195
1996 – present	Clinical Assistant Professor, Department of Speech & Hearing Sciences, University of Washington, Seattle, WA 98195
1996 – present	Clinical Assistant Professor, Rehabilitation Medicine, University of Washington, Seattle, WA 98195

CURRENT TEACHING RESPONSIBILITIES:

University of Washington	SPHSC 540: AAC: Developmental Disorders
	SPHSC 541: AAC: Acquired Disorders
	SPHSC 507: Evidence Based Practice I
	SPHSC 500: Clinical Methods for Documenting Change
	SPHSC 308: Social-Cultural Aspects of Communication

PREVIOUS PROFESSIONAL EXPERIENCE:

2001 – 2006	P.I., AAC enABLES Project; Department of Speech & Hearing Sciences, University of Washington, Seattle, WA 98195
1999 - 2001	Grant Coordinator: “Tele-Collaboration Project” Department of Speech & Hearing Sciences, UW, Seattle, WA
1992 - 1999	Coordinator, Children's Adaptive Technology Service Children's Hospital and Medical Center, Seattle, WA
1989 - 1991	Coordinator, Clinic for Augmentative Communication Children's Hospital of Eastern Ontario and Ottawa Children's Treatment Centre, Ottawa, Ontario, Canada
1987 - 1989	Assistant to the P.I., Augmentative Communication Inservice Training Project University Hospital, Seattle, WA
1985 - 1987	Director, Augmentative Communication Center University Hospital, Seattle, WA
1981 - 1985	Staff Speech Pathologist & Research Speech Pathologist Department of Rehabilitation, University of Washington, Seattle, WA
1980 - 1981	Consulting Speech Pathologist Marilyn Weiss Associates, Seattle, Washington

CERTIFICATION: Certificate of Clinical Competence, Speech Pathology
American Speech-Language & Hearing Association

AWARDS/NOMINATIONS:

2002: Nominated for UW Faculty Award for Distinguished Contribution to Lifelong Learning
1997: Received Meritorious Course Award from the University Continuing Education Association

PROFESSIONAL MEMBERSHIPS:

American Speech-Language-Hearing Association
International Society for Augmentative and Alternative Communication
United States Society for Augmentative and Alternative Communication
Washington Speech-Language-Hearing Association
NorthWest Augmentative Communication Society

EDITORIAL BOARD & JOURNAL REVIEW RESPONSIBILITIES:

Augmentative and Alternative Communication 1999 - present (AAC)

PUBLICATIONS:

- Olswang, L.B., Feuerstein, J.L., Pinder, G.L. & **Dowden, P.A.**. (in press). Validating dynamic assessment of triadic gaze for young children with severe disabilities. American Journal of Speech-Language Pathology (Accepted for publication)
- Brady, N.C., Fleming, K., Thiemann-Bourque, K., **Dowden, P.**, Saunders, M.D. & Marquis, J. (2012) Development of the Communication Complexity Scale. American Journal of Speech-Language Pathology (21) 16–28
- Dowden, P.** & Cook, A.M. (2011) “Improving Communicative Competence through Alternative Selection Methods” in Susan S. Johnston, Ph.D., Joe Reichle, Ph.D., Kathleen M. Feeley, Ph.D., and Emily A. Jones, Ph.D. (Eds.) Augmentative and Alternative Communication Strategies for Individuals with Severe Disabilities Baltimore, MD: Brookes Publishing
- Saunders, R.R., Sanders, M.D., Struve, B., Munce, A.L., Olswang, L.B., **Dowden, P.A.** & Klasner, E.R. (2007). Discovering indices of contingency awareness in adults with multiple profound disabilities. American Journal on Mental Retardation, 112, 246-260.
- Bilmes, J., Malkin, J., Li, X., Harada, S., Kilanski, K., Kirchoff, K., Wright, R., Subramanya, A., Landay, J., **Dowden, P.**, Chizeck, H. “The Vocal Joystick,” IEEE Intl. Conf. on Audio, Speech and Signal Processing, Toulouse, France, May, 2006.
- Dowden, P. (2006) “Teaching Evidence Based Practice at the Preservice Level” Perspectives on Augmentative and Alternative Communication, ASHA Division 12 Newsletter, Vol 15(3). p. 22-23.
- Dowden, P.A.**, Alarcon, N., Volan, T., Cumley, G.C., Kuehn, C.M. and Amtmann, D. (2006) Survey of SLP Caseloads in Washington State Schools: Implications and Strategies for Action. Language, Hearing and Speech Services in the Schools
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- Bilmes, J., Li, X., Malkin, J., Kilanski, K., Wright, R., Kirchoff, K., Subramanya, A., Harada, S., Landay, J., **Dowden, P.**, Chizeck, H. (2005) “The Vocal Joystick Demo at UIST05: A Voice-Based Human-Computer Interface,” Proceedings of the 18th Annual ACM Symp. On User Interface Software and Technology, Seattle, Oct, 2005.
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- McNaughton, D, Beukelman, D. & **Dowden, P.A.** (1999) “Tools to Support International and Intercommunity Collaboration in AAC Research.” Augmentative and Alternative Communication, 15 (4), December.

- Dowden, P.A.** (1999) "Different strokes for different folks" Augmentative Communication News, Vol 12 (1 and 2), p 7-8.
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- Dowden, P.A.** and Marriner, N.A. "Augmentative and Alternative communication: Intervention principles and strategies" In Caruso, A. (Ed.) Treatment for Children with Motor Speech Disorders. Seminars in Speech and Language. Vol 16 (1995)
- Dowden P.A.** "Effects of Listener Training on the Intelligibility of Severely Dysarthric Speech," Annual Convention for the American Speech-Language and Hearing Association, Anaheim, CA, November, 1993.
- Yorkston, K.M., **Dowden, P.A.** & Beukelman, D.R. "Intelligibility as a tool in the clinical management of dysarthric speakers," in R.D. Kent (ed.), Intelligibility in speech disorders: Theory, measurement and management. Amsterdam, John Benjamins, 1992.
- Hammen, V.L., Yorkston, K.M., & **Dowden, P.A.** "Index of contextual intelligibility I: Impact of semantic context in dysarthria" in C. Moore, K.M. Yorkston, & D.R. Beukelman (eds.), Dysarthria and apraxia of speech: Perspectives on intervention. Baltimore: Paul Brookes, 1991.
- Yorkston, K.M., Hammen, V.L., & **Dowden, P.A.** "Index of contextual intelligibility II: A perceptual analysis of intelligible versus unintelligible productions in severe dysarthria" in C Moore, KM Yorkston, DR Beukelman (eds.), Dysarthria and apraxia of speech: Perspectives on intervention. Baltimore: Paul H. Brookes, 1991.
- Yorkston, K.M., Honsinger, M.J., **Dowden, P.A.** and Marriner, N. "Vocabulary Selection: A case report" Augmentative and Alternative Communication 5(2), 101-108, June, 1989.
- Yorkston, K. M., **Dowden, P.A.** and Honsinger, M. "Natural speech as a component of augmentative communication systems," Presentation at the conference for the International Society for Augmentative and Alternative Communication, Anaheim, CA; Abstract in Augmentative and Alternative Communication 4(3): 149, 1988.
- Dowden, P.A.**, Yorkston, K.M., and Stoel-Gammon, C. 1987. Speech intelligibility of augmented system users: Effects of context. Presentation at the annual meeting of the American Speech and Hearing Association, Los Angeles, CA
- Honsinger, M.J., Yorkston, K.M. & **Dowden, P.A.** Communication Options for Intubated Patients. Respiratory Management, May/June, 1987.
- Dowden, P.A.:** Training Strategy - Augmentative Techniques in Intensive Care Units. In Blackstone, S. (Ed.) Augmentative Communication: An Introduction. Rockville, MD: American Speech-Language-Hearing Association, 1987
- Dowden, P.A.** and Beukelman, D.R.: Rate Accuracy and Message Flexibility. In Bernstein, L. E. (Ed.), The Vocally Impaired: Volume 1 - Clinical Research and Practice. Academic Press, 1987.
- Dowden, P.A.**, Beukelman, D.R., and Lossing, C.: Serving Non-Speaking Patients in Acute Care Settings: Intervention outcomes. Augmentative and Alternative Communication. 2(2), 38-44, 1986.
- Dowden, P.A.**, Honsinger, M., and Beukelman, D.R.: Serving Non Speaking Patients in Acute Care Settings: An intervention approach. Augmentative and Alternative Communication. 2(1), 25-32, 1986.
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RECENT PRESENTATIONS:

- 2012 Dowden, P., Feuerstein, J.L., Olswang, L.B & Pinder, G.L. "Early intervention for intentional communication in children with physical disabilities". ASHA Seminar, Pittsburgh, PA, November.
- 2012 Brady, N., Thiemann-Bouque, K., **Dowden, P.**, Olswang, L.B "The Communication Complexity Scale" part of a larger seminar on "New Approaches to Assessment for Early Communicators". ASHA Seminar, Pittsburgh, PA, November.

- 2012 Dowden, P. & Feuerstein, J.L., Olswang, L.B. & Pinder, G.L. "Dynamic Assessment in Early Intervention: Advancing Early Signals in Children with Significant Motor Impairment" Seminar at the bi-ennial conference for the International Society of Augmentative and Alternative Communication (ISAAC). Pittsburgh, PA, August.
- 2012 Dowden, P. "Serving Non-speakers in Medical Settings" One day workshop for Speech-Language Pathologists hosted by WSHLA
- 2012 Dowden, P. "Mobile Technology and Augmentative Communication: A Revolution in Service Delivery" Justus F. Lehmann Symposium, May 18, Seattle, WA
- 2012 Dowden, P. & Revelli, M. "The iPad & Other Mobile Technology for AAC in Early Intervention Programs" Boyer Children's Center, Seattle, WA. February .
- 2011 Olswang, L., Stratton, J., Pinder, G.L. & Dowden, P. "Intervention for Young Children With Severe Impairments: Dynamic Assessment" ASHA Seminar, San Diego, CA, November.
- 2011 Revelli, M. & Dowden, P. "Mobile Technology and Augmentative Communication" Annual convention for Washington Speech-Language and Hearing Association, Wenatchee, WA, November
- 2011 Dowden, P. "AAC & Mobile Technology" Northwest Augmentative Communication Society.
- 2011 Dowden, P. & Revelli, M. "AAC & Mobile Technology" Duncan Seminar, Seattle Children's Hospital.
- 2011 Stratton, J., & Dowden, P. "Early Communication Signals of Young Children with Severe Motor Impairments." Duncan Seminar, Seattle Children's Hospital.
- 2010 Dowden, P. AAC & 'Small' Technology. Workshop for the Summer Institute at the Center for Technology and Disability Studies, University of Washington, June.
- 2010 Dowden, P & Jones-Redmond, J. AAC using 'Small Tech' with non-spellers, University of Washington
- 2010 Dowden, P. "Educational Technology & Social Media". University of Washington
- 2009 Dowden, P. Joint Attention & Communication in Children with Motor Impairments. Presentation at Linköping University, Linköping, Sweden.
- 2009 Dowden, P. Continuum of Communication Independence: A framework for AAC Intervention. Presentation at Linköping University, Linköping, Sweden.
- 2009 Schlosser, R.W., Eysenbach, G., Dowden, P., Sigafoos, J., Raghavendra, P., Blackstone, S., O'Brien, K & El-Kherba, M. (2009). EVIDAAC: A database of appraised evidence in AAC. Presentation at the annual conference of the American Speech-Language-Hearing Association, New Orleans, November, 2009.
- 2008 Dowden, P. Augmentative & Alternative Communication: An Introduction. Workshop for the Summer Institute at the Center for Technology and Disability Studies, University of Washington, June.
- 2007 Dowden, P. Augmentative Communication for Individuals with Acquired Disorders. WSLHA, Seattle, WA
- 2007 Dowden, P. Augmentative & Alternative Communication. Workshop for the Summer Institute at the Center for Technology and Disability Studies, University of Washington, June.
- 2007 Dowden, P. AAC Intervention Planning with the Continuum of Communication Independence. Workshop for Children's Therapy Center, Kent.
- 2007 Introduction to AAC. Presentation to Occupational Therapy students in Rehabilitation Medicine
- 2007 Dowden, P. AAC Intervention Planning with the Continuum of Communication Independence. Workshop for Lowell School, Seattle.
- 2006 Augmentative & Alternative Communication. Workshop for the Summer Institute at the Center for Technology and Disability Studies, University of Washington, June.
- 2006 Introduction to AAC. Presentation to Occupational Therapy students in Rehabilitation Medicine
- 2006 Dowden, P. AAC Decision-Making & Intervention Planning for Children and Adults. Tacoma School District Workshop. Tacoma, WA
- 2006 Dowden, P. Teaching Evidence Based Practice at the Preservice Level. ASHA Division 12 Annual Leadership Conference. San Antonio, TX
- 2006 Dowden, P. "AAC Decision-Making & Intervention Planning for Children and Adults. Rehab Seminars Workshop. Seattle, WA
- 2005 Augmentative & Alternative Communication. Workshop for the Summer Institute at the Center for Technology and Disability Studies, University of Washington, June.
- 2005 Introduction to AAC. Presentation to Occupational Therapy students in Rehabilitation Medicine
- 2005 Dowden, P. "AAC Intervention Planning with the Continuum of Communication Independence. ID-Days Annual Conference. Stockholm, Sweden.

- 2005 Dowden, P. "Vocabulary Selection in AAC. ID-Days Annual Conference. Stockholm, Sweden.
- 2005 Munce, A, Dowden, P., Olswang, L., Saunders, D., Saunders, M. and Klasner, E. "Adults with Severe Multiple Disabilities: Types and Frequencies of Behaviors. Technical session presentation at the American Speech-Language-Hearing Association Convention, Los Angeles, CA. (November, 2005)
- 2005 Dowden, P. "Augmentative and Alternative Communication. DO-IT Seminar. Seattle, WA

JULIE A. DUNLAP, MS, CCC-SLP
Jul2@uw.edu

EDUCATION:

University of Washington; Seattle, Washington
Master of Science, Speech/Language Pathology, June 1995

Northwestern University; Evanston, Illinois
Bachelor of Science, Speech (Theatre), June 1986

PROFESSIONAL EXPERIENCE:

Clinical Supervisor/Lecturer, Department of Speech and Hearing Sciences, University of Washington, Seattle, Washington (December 2007 to Present). Supervision of graduate students in clinical assessment and treatment practica for pediatric clients in the areas of articulation, speech and language delay, paradoxical vocal fold motion and social communication disorders.

Instructor for graduate level didactic course in *Pediatric Feeding and Swallowing* (SPHS 543) Winter Quarter (2010 – present).

Speech/Language Pathologist, Children’s Hospital & Regional Medical Center, Seattle, Washington (January 1995 to November 2007). Balanced varied responsibilities for this tertiary care pediatric (neonate to 21 years) medical center including: determining swallowing function and remediation recommendations for dysphagic patients; diagnosis and remediation of the following: speech disorders associated with a wide range of congenital and acquired craniofacial deficits, neurogenic communication deficits for patients on a CARF accredited pediatric rehabilitation team and on acute care units, breathing difficulties for patients with paradoxical vocal fold motion, speech and language disorders impacting inpatient psychiatric unit residents, and children with developmental speech and language deficits. Additional responsibilities at Children’s have included Clinical Fellowship Year Supervisor for two CF candidates; Graduate Intern Supervisor for eight graduate students; successful co-training of three speech-language pathologists in the specialized role of pediatric Videofluoroscopic Swallowing Studies.

Clinical Lead, Speech and Language Services Department, Children’s Hospital, Seattle, WA (January 2001 to March 2005). In addition to clinical responsibilities, duties included maintaining daily staffing and arranging for sick, vacation and holiday coverage; monitoring staff productivity; arranging student observations and Graduate Internships; developing and maintaining Continuing Education Program; fielding telephone calls from the community; participating in the hiring of new clinical and support staff.

LICENSE:

Licensed to practice Speech Pathology in Washington

CERTIFICATION:

ASHA Certificate of Clinical Competence; November 1995

MEMBER:

Washington Speech-Language-Hearing Association

JULIE A. DUNLAP

PRESENTATIONS:

“Best Practice in Assessment and Treatment of Pediatric Language Disorder: Updates, Issues, and Realistic Implementation Strategies.” Co-presenter, Northshore School District, October, 2012, Bothell, Washington

“Best Practice in Treatment of Pediatric Language Disorder: Updates, Issues, and Realistic Implementation Strategies.” Co-presenter, Washington Speech, Language, Hearing Association, October, 2012, Tacoma, Washington

“Best Practice in Assessment and Treatment of Pediatric Language Disorder: Updates, Issues, and Realistic Implementation Strategies.” Co-presenter, Yakima Valley Hearing and Speech Center, April, 2012, Yakima, Washington

“Vocal Cord Dysfunction.” Guest Lecturer, University of Washington Speech and Hearing Sciences Department, 2008 to present, Seattle, Washington

“Pediatric Medical Speech Pathology.” Guest Lecturer, University of Washington Speech and Hearing Sciences Department, 2007 to present, Seattle, Washington

“Cleft Lip and Palate – Assessment and Treatment.” Guest Lecturer, Department of Speech and Hearing Sciences, University of Washington, 2008 to present, Seattle, Washington

“Pediatric Traumatic Brain Injury.” Guest Lecturer, Department of Speech and Hearing Sciences, University of Washington, February 2008, Seattle, Washington

“Normal and Atypical Speech-Language Development.” Guest Lecturer, University of Washington Dental School, April 2007, Seattle, Washington

“Vocal Cord Dysfunction.” Moderator, Pulmonary Nursing Journal Club, Children’s Hospital & Regional Medical Center, February 2007, Seattle, Washington

“Velopharyngeal Inadequacy.” Guest Lecturer, University of Washington Speech and Hearing Sciences Department, February 2005 and May 2004, Seattle, Washington

“Pediatric Feeding.” Guest Lecturer, Harborview Medical Center Speech Department, September 2004, Seattle, Washington

“Pediatric Dysphagia Short Course.” Co-presenter with Amy S. Faherty, MS, CCC-SLP, Idaho Speech Language Hearing Association, April 2000

“Treatment of Pediatric Swallowing and Feeding Disorders.” Guest Lecturer, University of Washington Speech and Hearing Sciences Department, May 1997 and June 1998, Seattle, WA

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University of Washington
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Seattle, WA 98105
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EDUCATION:

University of Western Ontario

London, Ontario, Canada

1999 - 2003, Ph.D., Rehabilitation Sciences

Ph.D. dissertation title: “Auditory-perceptual ratings and quality of life in tracheoesophageal speakers”

University of Western Ontario

London, Ontario, Canada

1996 - 1999, M.Sc., Communicative Disorders

MSc. Thesis title: “A perceptual investigation of vocal quality using backward speech”

Queen's University

Kingston, Ontario, Canada

1991 - 1995, B.ScH., Biology/Psychology

EMPLOYMENT:

<u>Position</u>	<u>Institution/Organization</u>	<u>Faculty/Dept/School</u>	<u>Start</u>	<u>End</u>
Associate Professor	University of Washington Seattle, WA 98105	Dept of Speech and Hearing Sciences	09/09 - current	
Assistant Professor	University of Washington Seattle, WA 98105	Dept of Speech and Hearing Sciences	09/03 - 09/09	
Sessional Instructor (Phonation)	University of Western Ontario London, ON	School of Communication Sciences and Disorders	01/02 - 05/03	
Graduate Teaching Assistant	University of Western Ontario London, ON	Faculty of Health Sciences	09/99 - 01/02	
Sessional Instructor	University of Western Ontario	School of	01/01 - 05/01	

(Motor Speech
Disorders)

London, ON

Communication Sciences
and Disorders

Speech-Language
Pathologist

Strathroy Middlesex General Hospital
Strathroy, ON Canada

04/03 - 08/03
05/00 - 05/02

RESEARCH GRANTS, CONTRACTS, AND SCHOLARSHIPS:

<u>Type</u>	<u>Awarding Organization</u>	<u>Date Awarded</u>
R01 (1R01CA177635-01) "Communication outcomes after head and neck cancer" Role: Principal Investigator	NIH (National Cancer Institute)	Pending Review
R03 (1R03CA132525-01A1) "Measuring communicative participation in head and neck cancer" Role: Principal Investigator	NIH (National Cancer Institute)	08/01/08 – 07/31/11 \$156,000 (total) NCE: 07/31/12
New Investigator Research Grant "The effect of training on naïve listeners' auditory-perceptual judgments of dysphonia" Role: Principal Investigator	American Speech-Language-Hearing Foundation (ASLHF) Supplement by Special Interest Division 3 American Speech-Language-Hearing Association	01/01/08 – 12/31/08 \$5,000 Award \$1,500 Supplement
Royalty Research Fund The effect of listener experience on auditory-perceptual judgments of dysphonia Role: Principal Investigator	University of Washington	07/16/06 – 07/15/07 \$34,214
R21 (R21HD-45882-01) Yorkston, K. (P.I.) – Developing a scale of communicative participation. Role: Research collaborator (.10 FTE, 2 summer months, 2005; .05 FTE 10 months, 2007-08).	NIH (NIDCD)	10/01/03-09/30/06 \$273,826 (total)
Federal	Canadian Institutes of Health Research Fellowship Award (Postdoctoral study)	04/03, Awarded but not Accepted
Federal	Canadian Institutes of Health Research Fellowship Award (Doctoral study)	06/02 – 06/03
Provincial	Ontario Graduate Scholarship Program	06/00 - 01/02
Private	Ontario Harmonize for Speech Fund Ontario Barbershop Singers	11/99
Provincial	Ontario Graduate Scholarship Program	06/98 - 01/99
Institutional	University of Western Ontario Graduate Tuition Scholarship	09/97 - 05/99

PROFESSIONAL OFFICES, AWARDS, AND SERVICE:

i) CERTIFICATIONS, LICENSES, AND MEMBERSHIPS

<u>Title</u>	<u>Organization</u>	<u>Start</u>	<u>End</u>
Certified Speech-Language Pathologist, S-LP(C)	<i>Canadian Association of Speech-Language Pathologists and Audiologists (CASLPA)</i>	09/99	- current
Certificate of Clinical Competence and Member CCC-SLP	<i>American Speech-Language-Hearing Association (ASHA)</i>	09/03	- current

Licensed Speech-Language Pathologist	State of Washington, Health Professions Quality Assurance Division	01/04 - current
Professional Member	<i>Voice Foundation</i>	01/05 - current
Member	<i>Washington Speech and Hearing Association</i>	10/05 - current
Associate Member	<i>Acoustical Society of America</i>	01/04 - 01/06
Virginia Merrill Bloedel Hearing Research Center Affiliate		12/10 - current

ii) OFFICES, ROLES AND ACTIVITIES:

Ad Hoc Reviewer, *Journal of Speech-Language Pathology and Audiology*, 09/00 – 2009.

Ad Hoc Reviewer, *Laryngoscope*, 11/03 – current.

Ad Hoc Reviewer, *Journal of Speech, Language, and Hearing Research*, 06/04 – current.

Ad Hoc Reviewer, *Ear and Hearing*, 10/04.

Ad Hoc Special Reader, *Psychological Reports / Perceptual and Motor Skills*, 06/05.

Ad Hoc Reviewer, *Folia Phoniatica et Logopaedica*, 10/05 – current.

Ad Hoc Reviewer, *American Journal of Speech-Language Pathology*, 04/06 – current.

Ad Hoc Reviewer, *Head & Neck*, 07/06 – current.

Ad Hoc Reviewer, *Journal of the Acoustical Society of America*, 01/07 – current.

Ad Hoc Reviewer, *Archives of Otolaryngology – Head & Neck Surgery*, 06/08 – current.

Ad Hoc Reviewer, *Annals of Rhinology, Otolaryngology, & Laryngology*, 05/09 – current.

Ad Hoc Reviewer, *Journal of Voice*, 12/12 – current.

Study Section Review Panel Member, ETTN-H(51) Interventions for Improving Communication Disorders, R21/R33 Phased Innovation Awards, NIH(NIDCD), 03/22/10-03/23/10.

Associate Editor, *Perspectives on voice and voice disorders: ASHA SID 3 newsletter*, 01/01/08 – 12/31/10.

Editor, *Perspectives on voice and voice disorders: ASHA SIG 3 newsletter*, 01/01/11 – 12/31/12.

Guest Associate Editor, *American Journal of Speech-Language Pathology*, 06/06/10.

External Grant Reviewer for Resident Research, *Physicians' Services Incorporated (PSI) Foundation*, Toronto, ON, Canada, 11/07.

External Grant Reviewer, *Genesis Oncology Trust Assessment Committee*, Greenlane, Auckland, New Zealand, 10/05.

Field Trial Reviewer, *Procedural Manual and Guide for a Standardized Application of the ICF: A Manual for Health Professionals*, American Psychological Association in collaboration with the World Health Organization, 02/04.

iii) HONORS AND AWARDS

<u>Type</u>	<u>Awarding Organization</u>	<u>Date Awarded</u>
Private	Editor's Award, American Journal of Speech-Language Pathology, awarded by the <i>American</i>	11/12

Speech-Language-Hearing Association

Private	Voice Foundation, Honorable Mention for the David W. Brewer Award for Best Poster, Annual Symposium, Philadelphia, PA	06/12
Federal/Institutional (Honorary)	Governor General Gold Medal University of Western Ontario (UWO) Highest Academic Average, Graduate Studies	06/03
Private (Honorary)	Editor's Award, <i>Canadian Association of Speech-Language Pathologists and Audiologists</i>	04/02
Institutional (Honorary)	University of Western Ontario Graduate Student Teaching Nomination	06/00

iv) COMMITTEES AND SERVICE:

1) University of Washington Departmental and University-Wide Committees

a) Member, Speech-Language Pathology Interest Group	09/03 – current
b) Head, Speech-Language Pathology Interest Group	09/10 – present
c) Member, Executive Committee, Dept of SPHSC	09/10 - present
d) Member, Speech-Language Pathology Graduate Selection Committee	03/04 - present
e) Undergraduate Program Liaison	09/08 – 09/10
f) Member, Grand Rounds Committee	09/05 – 09/08
g) Co-Chair, News Committee	09/04 – 06/10
h) Member, Post-baccalaureate Selection Committee	02/09 – 05/10
i) Member, Website Committee	02/09 – 11/11
j) Co-Chair, Undergraduate Review Committee	05/09 – 07/09
k) Search Committee Member for Laryngology, Department of Otolaryngology-Head and Neck Surgery	08/08 – 03/09
l) Search Committee Member for tenure track position in Pediatric Speech-Language Pathology, SPHSC	06/11 – present

2) State/National

Member, Expert Working Panel in Instrumental Voice Assessment, American Speech-Language-Hearing Association, 01/13 – present. *The panel is charged with developing a protocol for instrumental assessment of vocal function in the areas of endoscopic imaging, acoustic, and aerodynamic procedures.*

Member, Clinical Voice Assessment Working Group, Division 3 (Special Interest Division), Voice and Voice Disorders, American Speech-Language-Hearing Association, 08/09 – 03/12.

Work in collaboration with the National Center for Evidence-Based Practice in Communication Disorders (N-CEP) to conduct an evidence-based systematic review of the literature in voice measurement methods and clinical voice assessment procedures and based on the evidence, develop guidelines on clinical voice assessment.

Steering Committee Member, Voice and Voice Disorders Special Interest Group 3 (SIG3), *American Speech-Language-Hearing Association (ASHA)*, 01/11 – 12/12.

Member, Special Interest Group 3 (SIG 3), Voice and Voice Disorders, *American Speech-Language-Hearing Association* (ASHA), 01/04 - current.

Regional Captain, ASHA Special Interest Division: Voice and Voice Disorders (SID 3) Education Committee, 08/08 – 12/31/10

Member, 2013 Program Committee in Voice and Alaryngeal Speech for the Annual Convention of the *American Speech-Language-Hearing Association*, Chicago, IL.

Member, 2012 Program Committee in Voice and Alaryngeal Speech for the Annual Convention of the *American Speech-Language-Hearing Association*, Atlanta, GA.

Member, 2010 Program Committee in Voice and Alaryngeal Speech for the Annual Convention of the *American Speech-Language-Hearing Association*, Philadelphia, PA.

Member, 2008 Program Committee in Voice and Alaryngeal Speech for the Annual Convention of the *American Speech-Language-Hearing Association*, Chicago, IL.

Member, 2005 Program Committee in Voice, Resonance, and Head and Neck Cancer for the Annual Convention of the *American Speech-Language-Hearing Association*. Coordinator for the Invited Session in Head and Neck Cancer.

3) Community

Member of the Northwest Chapter of the Voice Foundation. 09/07 – current.

Eadie, T. L., & Nevdahl, M. (2008, March). *Fundamentals of voice production*. Invited presentation for the Northwest Chapter of the Voice Foundation, Seattle, WA.

Eadie, T. L. (2004, June). *Auditory-perceptual evaluation of voice: What do you hear?* Invited presentation for the Department of Speech-Language Pathology, University of Washington Medical Center and Harborview Medical Center, Seattle, Washington.

Doyle, P.C., & **Eadie, T. L.** (2004, February). *Tracheoesophageal voice restoration: Assessments of speech and perceived quality of life*. Invited presentation to the Wellspring Cancer Care Program, Sunnybrook and Women's College Health Centre and Department of Otolaryngology-Head and Neck Surgery, Toronto, Ontario.

WORKSHOPS/ADDITIONAL EXPERIENCES:

Grant-writing seminar through UW Research Funding Services: Jan 21, 28; 2004.

Lessac-Madsen Resonant Voice Therapy workshop: May, 2004.

Lessac-Madsen Resonant Voice Therapy: Co-coordinated workshop: February, 2008.

Faculty Fellows Program, University of Washington, Sept. 10-Sept. 17, 2004.

Grant-writing in Hearing, Language, and Speech Science (SPHSC 568): Autumn Quarter, 2004.

Human Subjects Training. University of Washington. November 8, 2004.

Introduction to Matlab for Speech and Hearing Sciences (SPHSC 524), Summer Quarter, 2005.

Grants Management workshop. Feb 10, 2008.

Quarterly forum on Teaching and Learning: Using small group inquiry activities to engage students in large classes. Feb 12, 2009.

Invited Attendee (May, 2009). Lessons for Success: Developing the Emerging Scientist, 7th Annual Conference on Research in Communication Sciences and Disorders, Sponsored by the *American-Speech-Language-Hearing Association and National Institutes of Health (NIDCD)*, Rockville, MD.

BIBLIOGRAPHY: TALKS, PAPERS, PRESENTATIONS (Principal Author is first listed author):

i) REFEREED JOURNAL PUBLICATIONS:

Isetti, D., Xuereb, L., & **Eadie, T. L.** (under review). Inferring speaker attributes in adductor spasmodic dysphonia: Ratings from unfamiliar listeners. *American Journal of Speech-Language Pathology*.

Eadie, T. L., Lamvik, K., Baylor, C. R., Yorkston, K. M., Kim, J., & Amtmann, D. (under review). Communicative participation and quality of life in head and neck cancer. *Head & Neck*.

Baylor, C. R., Yorkston, K. M., **Eadie, T. L.**, Kim, J., Chung, H., & Amtmann, D. (in press). The Communicative Participation Item Bank (CPIB): Item bank calibration and development of a disorder-generic short form. *Journal of Speech, Language, and Hearing Research*.

Roy, N., Barkmeier-Kraemer, J., **Eadie, T.**, Sivasankar, M. P., Mehta, D., Paul, D., & Hillman, R. (in press). Evidence-based clinical voice assessment: A systematic review. *American Journal of Speech-Language Pathology*.

Eadie, T. L., & Stepp, C. E. (in press). An acoustic correlate of vocal effort in spasmodic dysphonia. *Annals of Otology, Rhinology, & Laryngology*.

Eadie, T. L., Day, A. M. B., Sawin, D. E., Lamvik, K., & Doyle, P. C. (2013). Auditory-perceptual speech outcomes and quality of life after total laryngectomy. *Otolaryngology – Head & Neck Surgery*, 148(1), 82-88.

Stepp, C. E., Sawin, D. E., & **Eadie, T. L.** (2012). The relationship between perception of vocal effort and relative fundamental frequency during voicing offset and onset. *Journal of Speech, Language, and Hearing Research*, 55, 1887-1896.

Eadie, T. L., & Bowker, B. (2012). Coping and quality of life after total laryngectomy. *Otolaryngology – Head & Neck Surgery*, 146(6), 959-965.

Nagle, K. F., **Eadie, T. L.**, Wright, D. R., & Sumida, Y. A. (2012). Effect of fundamental frequency on judgments of electrolaryngeal speech. *American Journal of Speech-Language Pathology*, 21, 154-166.

Nagle, K. F., & **Eadie, T. L.** (2012). Listener effort for highly intelligible tracheoesophageal speech. *Journal of Communication Disorders*, 45, 235-245.

Misono, S., Merati, A. L., & **Eadie, T. L.** (2012). Developing auditory-perceptual judgment reliability in otolaryngology residents. *Journal of Voice*, 26(3), 358-364.

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- Birkent, H., Erol, U., Ciyiltepe, M., **Eadie, T.L.**, Durmaz, A., & Tosun, F. (2009). The relationship between volumetric changes of the nasal cavity and nasalance. *The Journal of Laryngology & Otolaryngology*, 123(4), 405-411.
- Baylor, C. R., Yorkston, K. M., **Eadie, T. L.**, Miller, R. M., & Amtmann, D. (2008). Describing how people use speech with the “Levels of Speech Usage” rating system: Preliminary data from a spasmodic dysphonia sample. *Journal of Medical Speech-Language Pathology*, 16(4), 191-198.
- Eadie, T. L.**, Doyle, P.C., Hansen, K., & Beaudin, P. G. (2008). Influence of speaker gender on listener judgments of tracheoesophageal (TE) speech. *Journal of Voice*, 22(1), 43-57.
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Baylor, C. R., Yorkston, K. M., **Eadie, T. L.,** & Maronian, N. (2007). The psychosocial consequences of BOTOX® injections for spasmodic dysphonia: A qualitative study of patients' experiences. *Journal of Voice, 21*(2), 231-247.

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Baylor, C. R., Yorkston, K. M., **Eadie, T. L.,** Strand, E. A., & Duffy, J. (2006). A review of outcome measurement in unilateral vocal fold paralysis. *Journal of Medical Speech-Language Pathology, 14*(1), xxvii-lvii.

Eadie, T. L., & Doyle, P. C. (2005). Scaling of pleasantness and acceptability in tracheoesophageal (TE) speakers. *Journal of Voice, 19*(3), 373-383.

Baylor, C. R., Yorkston, K. M., & **Eadie, T. L.** (2005). The consequences of spasmodic dysphonia on communication-related quality of life: A qualitative study of the insider's experiences. *Journal of Communication Disorders, 38*, 395-414.

Eadie, T. L., & Charland, L. C. (2005). Ethics in speech-language pathology: Beyond the codes and canons. *Journal of Speech-Language Pathology and Audiology, 29*(1), 29-36.

Eadie, T. L., & Doyle, P. C. (2005). Classification of dysphonic voice: Acoustic and auditory-perceptual measures. *Journal of Voice, 19*(1), 1-14.

Eadie, T. L., & Doyle, P. C. (2005). Quality of life in male tracheoesophageal (TE) speakers. *Journal of Rehabilitation Research & Development, 42*(1), 115-124.

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Eadie, T. L. (2003). The ICF: A proposed framework for comprehensive rehabilitation of individuals who use alaryngeal speech. *American Journal of Speech-Language Pathology, 12*, 189-197.

Eadie, T. L., & Doyle, P. C. (2002). DME and EAI scaling of naturalness and severity in tracheoesophageal (TE) speakers. *Journal of Speech, Language, and Hearing Research, 45*, 1088-1096.

Eadie, T. L., & Doyle, P. C. (2002). Direct magnitude estimation and interval scaling of pleasantness and severity in dysphonic and normal speakers. *Journal of the Acoustical Society of America*, *112*, 3014-3021.

Eadie, T. L. (2001). The ICIDH-2: Theoretical and clinical implications for speech-language pathology. *Journal of Speech-Language Pathology and Audiology*, *25*, 193-211.

Eadie, T. L. (2001). [Review of *Guide to dysarthria management: A client-clinician approach*]. *Journal of Speech-Language Pathology and Audiology*, *25*, 37-39.

Eadie, T. L. (2000). Characteristics of the aging female voice. *Journal of Speech-Language Pathology and Audiology*, *24*, 162-179.

ii) OTHER PUBLICATIONS (NON-REFEREED) (e.g., INVITED TECHNICAL PAPERS, BOOK CHAPTERS):

Eadie, T. L., & Hapner, E. R. (2013). Current issues in voice assessment and intervention in the USA. In E. Yiu (Ed.), *International Perspectives on Voice Disorders* (pp. 90-100). Bristol, UK: Multilingual Matters.

Eadie, T. L. (2008). Quality of life after total laryngectomy. In proceedings from, *Invitational Roundtable on Evidence-Based Voice and Speech Rehabilitation in Head and Neck Cancer*. Department of Head and Neck Oncology and Surgery, Netherlands Cancer Institute, and the Institute of Phonetic Sciences, University of Amsterdam, Amsterdam, Netherlands.

Eadie, T. L., Myers, C., Beaudin, P. G., & Doyle, P. C. (2006, July). Factors influencing quality of life in individuals with head and neck cancer. *Perspectives on voice and voice disorders: ASHA SID 3 newsletter*, *5*(2), 19-24. Rockville Pike, MD: ASHA.

Baylor, C. R., Yorkston, K.M., Strand, E. A., **Eadie, T. L.**, & Duffy, J. R. (2006). Practice guidelines for neurogenic voice: Measurement of treatment outcomes in unilateral vocal fold paralysis: A systematic review (Technical Report 5). <http://www.ancds.duq.edu/guidelines.html>. Minneapolis, MN, Academy of Neurologic Communication Sciences and Disorders.

Doyle, P. C., & **Eadie, T. L. (2005).** The perceptual nature of alaryngeal voice and speech. In P.C. Doyle, & R.L. Keith (Eds.), *Contemporary Considerations in the Treatment and Rehabilitation of Head and Neck Cancer* (pp. 113-140). Austin, TX: Pro Ed.

Doyle, P. C., & **Eadie, T. L. (2005).** The pharyngoesophageal segment function: A review and reconsideration. In P.C. Doyle, & R.L. Keith (Eds.), *Contemporary Considerations in the Treatment and Rehabilitation of Head and Neck Cancer* (pp. 521-543). Austin, TX: Pro Ed.

Eadie, T. L. (2005, May). *Quality of life and voice after total laryngectomy*. Article for “Whispers on the Web”, a monthly newsletter for the Webwhispers Nu Voice Club, a self-help club for Total Laryngectomees.

Doyle, P.C., & **Eadie, T. L. (2004).** Alaryngeal voice and speech rehabilitation. In R. D. Kent (Ed.), *MIT Encyclopedia of Communication Disorders (MITECD)* (pp. 10-13). Cambridge, MA: MIT press.

iii) INVITED PRESENTATIONS:

Eadie, T. L. (2012, October). *Anatomy and physiology for voice clinicians*. Invited 30 min seminar at the Annual Convention of the Washington Speech, Language, and Hearing Association, Tacoma, WA.

Eadie, T. L. (2011, June). *The impact of laryngectomy*. Invited 45 min seminar at the International Association of Laryngectomees Voice Institute Program, Kansas City, MO.

Eadie, T. L. (2011, June). *Gender considerations in laryngectomy*. Invited 30 min seminar at the International Association of Laryngectomees Voice Institute Program, Kansas City, MO.

Eadie, T. L., & Merati, A. L. (2010, April). *Diagnosis and Management of Benign Vocal Fold Lesions: A Multidisciplinary Approach*. Invited 90 min seminar (Part I) at the Annual American Speech-Language-Hearing Association Health Care Conference/Business Institute, Seattle, WA.

Eadie, T. L., & Merati, A. L. (2010, April). *Diagnosis and Management of Benign Vocal Fold Lesions: Round Table Discussion*. Invited 90 min seminar (Part II) at the Annual American Speech-Language-Hearing Association Health Care Conference/Business Institute, Seattle, WA.

Eadie, T. L. (2009, June). *Do you hear what I hear: Studies in vocal perception*. Guest presenter for Annual Otolaryngology Alumni day, presented by the Department of Otolaryngology-Head & Neck Surgery, University of Washington School of Medicine, Seattle, WA.

Rousseau, B., **Eadie, T.**, Branski, R., & Sivasankar, M. (2008, November). *Success in academia: Perspectives from junior faculty*. Invited 2-hr seminar, sponsored by the Research and Scientific Affairs Committee at the Annual Convention of the American Speech-Language-Hearing Association, Chicago, IL.

Eadie, T. L. (2008, October). *Assessing and treating voice disorders from WHO's perspective*. Invited 3-hr seminar at the Annual Convention of the British Columbia Association of Speech-Language Pathologists and Audiologists (BCASLPA), Nelson, BC.

Eadie, T. L. (2008, May). *Postlaryngectomy rehabilitation / intervention and quality of life studies*. Invited lecture at the Invitational Roundtable on Evidence-Based Voice and Speech Rehabilitation in Head and Neck Cancer. Department of Head and Neck Oncology and Surgery, Netherlands Cancer Institute, and the Institute of Phonetic Sciences, University of Amsterdam, Amsterdam, Netherlands.

Baylor, C. R., & **Eadie, T. L.** (2008, March). *Outcome measurement in spasmodic dysphonia: Asking the experts*. Invited presentation at the Annual Convention of the National Spasmodic Dysphonia Association, Salt Lake City, UT.

Eadie, T. L., Giannini, E., Nevdahl, M., & Baylor, C. R. (2007, October). *The effect of feedback on listeners' judgments of dysphonia*. Podium presentation at the Annual Conference of the Pacific Voice and Speech Foundation / UCLA Voice Center, Los Angeles, CA.

Doyle, P. C., **Eadie, T. L.,** Myers, C., Beaudin, P. G., White, H. D., & Day, A. (2005, November). *Defining quality of life for individuals with head and neck cancer*. Invited 2-hr seminar for Annual Convention of the American Speech-Language-Hearing Association, San Diego, CA.

University of Washington Medical Center, Department of Otolaryngology – Head & Neck Surgery. (2005, March). *Vocal fold physiology*. Guest presenter for annual conference entitled, “Laryngology-Office based procedures” presented by the University of Washington School of Medicine, Seattle, WA.

Alberta College of Speech-Language Pathologists and Audiologists. (2002, October). *The ICF: A Framework for Evaluation and Rehabilitation of Individuals with Communication Disorders*. Invited presentation for annual professional development conference, Edmonton, Alberta.

University of Toronto, School of Medicine, Department of Otolaryngology. Resident Lecture series. (2001, January). *Auditory-Perceptual Assessment of Voice: Strengths and Limitations*. Invited lecture at St. Michael's Hospital, Toronto, Ontario.

iv) REFEREED PROCEEDINGS AND POSTER PRESENTATIONS:

Nagle, K., & **Eadie, T.** (submitted for June, 2013). *Determining time- and frequency-based acoustic correlates of listener effort in tracheoesophageal speech*. Submitted for presentation at the 10th International Conference on Advances in Quantitative Laryngology, Voice and Speech Research, Cincinnati, OH.

Ragan, K., **Eadie, T.**, Nevdahl, M., & Meyer, D. (submitted for June, 2013). *The physiological and pedagogical basis for vocal cool-down exercises*. Submitted for presentation at the Annual Symposium of the Voice Foundation, Philadelphia, PA.

Eadie, T., Nagle, K., Baylor, C., & Yorkston, K. (accepted for February, 2013). *The relationship between communicative participation and post-laryngectomy speech outcomes*. Podium presentation at the Annual Conference of the Pacific Voice and Speech Foundation / UCLA Voice Center, Los Angeles, CA.

Baylor, C., Yorkston, K., & **Eadie, T.** (November, 2012). *Communicative participation in adults: Clinical implications for a cross-disorders perspective*. One hour seminar presentation at the Annual Convention of the American Speech-Language-Hearing Association, Atlanta, GA.

Baylor, C., Amtmann, D., **Eadie, T.**, & Yorkston, K. (November, 2012). *A clinical tool to measure communicative participation in adults*. One hour seminar presentation at the Annual Convention of the American Speech-Language-Hearing Association, Atlanta, GA.

Seagrave, E., Nagle, K., Sawin, D., & **Eadie, T.** (November, 2012). *Effect of speech intelligibility on listener effort in electrolaryngeal speech*. Poster presentation at the Annual Convention of the American Speech-Language-Hearing Association, Atlanta, GA.

Johnson, J., Sawin, D., & **Eadie, T.** (November, 2012). *A comparison between self-rated and listener-rated outcomes in tracheoesophageal speech*. Poster presentation at the Annual Convention of the American Speech-Language-Hearing Association, Atlanta, GA.

Isetti, D., Nagle, K., Sawin, D., & **Eadie, T.** (November, 2012). *The effect of diagnostic information on judgments of spasmodic dysphonia*. Poster presentation at the Annual Convention of the American Speech-Language-Hearing Association, Atlanta, GA.

Nagle, K., & **Eadie, T.** (November, 2012). *Listener effort as an outcome measure for adductor spasmodic dysphonia*. Poster presentation at the Annual Convention of the American Speech-Language-Hearing Association, Atlanta, GA.

Eadie, T., Lamvik, K., Baylor, C., Yorkston, K., Kim, J., & Amtmann, D. (July, 2012). *The relationship between communicative participation and quality of life measures in head and neck cancer*. Podium

presentation at the American Head and Neck Society's 8th International Conference on Head and Neck Cancer, Toronto, Ontario, Canada.

Eadie, T., Nagle, K., Day, A., Sawin, D., Isetti, D., Lamvik, K., & Doyle, P. (July, 2012). *Auditory-perceptual speech outcomes and quality of life after total laryngectomy*. Poster presentation at the American Head and Neck Society's 8th International Conference on Head and Neck Cancer, Toronto, Ontario, Canada.

Isetti, D., **Eadie, T.**, Nagle, K., Sawin, D., & Merati, A. (June, 2012). *Inexperienced listener impressions of speakers with spasmodic dysphonia*. Poster presentation at the Annual Symposium of the Voice Foundation, Philadelphia, PA.

Doyle, P.C., **Eadie, T.**, Searl, J., Finchem, E., Hampton, W., Herbst, R., & Reeves, S. (November, 2011). *Enhancing postlaryngectomy rehabilitation through professional and peer-support group linkages*. Two hour seminar presentation at the Annual Convention of the American Speech-Language-Hearing Association, San Diego, CA.

Willet, D., Nagle, K., Lamvik, K., Isetti, D., & **Eadie, T.** (November, 2011). *How auditory anchors affect judgments of breathiness and roughness*. Poster presentation at the Annual Convention of the American Speech-Language-Hearing Association, San Diego, CA.

Nagle, K., Helou, L., Solomon, N., & **Eadie, T.** (November, 2011). *Do severity markers differentiate visual-analog-scale ratings of dysphonia?* Poster presentation at the Annual Convention of the American Speech-Language-Hearing Association, San Diego, CA.

Lamvik, K., Nagle, K., Sawin, D., & **Eadie, T.** (November, 2011). *Speech intelligibility, acceptability, and quality of life in alaryngeal speakers*. Poster presentation at the Annual Convention of the American Speech-Language-Hearing Association, San Diego, CA.

Eadie, T., Baylor, C., Lamvik, K., & Yorkston, K. (November, 2011). *Establishing the validity of a novel measure of communicative participation across populations*. Podium presentation at the University of California at San Francisco (UCSF) Voice Conference, San Francisco, CA.

Stepp, C., & **Eadie, T.** (May, 2011). *Relative fundamental frequency as an acoustic correlate of vocal effort in spasmodic dysphonia*. Poster presentation at the Annual Conference of the Acoustical Society of America, Seattle, WA.

Nagle, K., & **Eadie, T.** (November, 2010). *Listener effort in tracheoesophageal speech*. Poster presentation at the Annual Convention of the American Speech-Language-Hearing Association, Philadelphia, PA.

Bowker, B., & **Eadie, T.** (November, 2010). *Coping and quality of life after total laryngectomy*. Poster presentation at the Annual Convention of the American Speech-Language-Hearing Association, Philadelphia, PA.

Ackerman, T., **Eadie, T.**, Nevdahl, M., Sawin, D., & Merati, A. (November, 2010). *Vocal characteristics in student performers and non-performers*. Poster presentation at the Annual Convention of the American Speech-Language-Hearing Association, Philadelphia, PA.

- Gray, C., Baylor, C., **Eadie, T.**, Yorkston, K., & Kendall, D. (November, 2010). *Levels of speech usage: Comparing clinician ratings to client ratings*. Poster presentation at the Annual Convention of the American Speech-Language-Hearing Association, Philadelphia, PA.
- Eadie, T.**, Sawin, D., Ackerman, T., Nevdahl, M., & Merati, A. L. (June, 2010). *Using self-report measures to screen voice disorders in student performers*. Poster presentation at the Annual Symposium of the Voice Foundation, Philadelphia, PA.
- Baylor, C., Yorkston, K., Burns, M., **Eadie, T.**, & Britton, D. (March, 2010). *A qualitative study of communicative participation restrictions across adults with different motor speech disorders*. Poster presentation at the Biennial Conference of Motor Speech Disorders. Savannah, GA.
- Britton, D., Baylor, C., **Eadie, T.**, Merati, A., Stepp, C., & Yorkston (March, 2010). *Endoscopic assessment of vocal fold movements during cough*. Poster presentation at the Biennial Conference of Motor Speech Disorders. Savannah, GA.
- Eadie, T.**, Nevdahl, M., Bornbaum, A., Day, A., & Doyle, P.C. (November, 2009). *Voice disability in laryngectomized women: Esophageal, tracheoesophageal and electrolaryngeal speech*. Poster presentation at the Annual Convention of the American Speech-Language-Hearing Association, New Orleans, LA.
- Eadie, T.**, Giannini, E., Rose, A., & Nevdahl, M. (November, 2009). *The effect of training and anchors on judgments of dysphonia*. Poster presentation at the Annual Convention of the American Speech-Language-Hearing Association, New Orleans, LA.
- Eadie, T.**, Sroka, A., Wright, D., & Merati, A. (June, 2009). *Does knowledge of medical diagnosis affect auditory-perceptual judgments of dysphonia?* Platform/technical presentation at the Annual Symposium of the Voice Foundation, Philadelphia, PA.
- Yorkston, K., Baylor, C., **Eadie, T.**, & Amtmann, D. (November, 2008). *The communicative participation item bank: Definitions, development and application*. 2-hr seminar presentation at the Annual Convention of the American Speech-Language-Hearing Association, Chicago, IL.
- Baylor, C., Yorkston, K., **Eadie, T.**, & Amtmann, D. (November, 2008). *Development of a self-report tool for coding speech needs*. Poster presentation at the Annual Convention of the American Speech-Language-Hearing Association, Chicago, IL.
- Wright, D., & **Eadie, T.** (November, 2008). *How naïve listeners perceive gender in electrolaryngeal speech*. Poster presentation at the Annual Convention of the American Speech-Language-Hearing Association, Chicago, IL.
- Kapsner, M., & **Eadie, T.** (November, 2008). *How listener experience and auditory anchors affect judgments of dysphonia*. Poster presentation at the Annual Convention of the American Speech-Language-Hearing Association, Chicago, IL.
- Eadie, T.**, Doyle, P., Searl, J., & Evitts, P. (November, 2008). *Defining communication success after total laryngectomy*. 1-hr seminar presentation at the Annual Convention of the American Speech-Language-Hearing Association, Chicago, IL.

Misono, S., **Eadie, T.**, & Merati, A. (October, 2008). *Developing perceptual judgment reliability in otolaryngology residents*. Presentation at the University of California at San Francisco (UCSF) Voice Conference, San Francisco, CA.

Tang, J., Fung, K., Leeper, W.R., Yoo, J., Lampe, H.B., Franklin, J.H., **Eadie, T.L.** & Doyle, P.C. (July, 2008). *Comparative evaluation of primary and secondary tracheoesophageal puncture for alaryngeal speech restoration*. Presentation at the Annual Meeting of the American Head and Neck Society, San Francisco, CA.

Eadie, T., Kapsner, M., Rosenzweig, J., Waugh, P., Hillel, A., & Merati, A. (June 2008). *The role of experience on judgments of dysphonia*. Platform/technical presentation at the Annual Symposium of the Voice Foundation, Philadelphia, PA.

Baylor, C., Yorkston, K., Eadie, T., & Amtmann, D. (2008, March). *The speech needs questionnaire: Preliminary data from a spasmodic dysphonia sample*. Poster presentation at the Biennial Conference of Motor Speech Disorders. Monterey, CA.

Eadie, T., Stubbs, K., VanBoven, L., & Giannini, E. (2007, November). *The effect of musical background on judgments of dysphonia*. Poster presentation at the Annual Convention of the American Speech-Language-Hearing Association, Boston, MA.

Baylor, C., R. Yorkston, K. M., **Eadie, T. L.**, & Amtmann, D. (2007, November). *Developing the Communicative Participation Scale: Testing in spasmodic dysphonia populations*. Seminar presentation at the Annual Convention of the American Speech-Language-Hearing Association, Boston, MA.

Baylor, C. R., Yorkston, K. M., **Eadie, T. L.**, & Amtmann, D. (2007, November). *Comparing online vs. on-paper administration of the Communicative Participation Scale*. Poster presentation at the Annual Convention of the American Speech-Language-Hearing Association, Boston, MA.

Sumida, Y., Bishop, C., & **Eadie, T.** (2007, November). *Perception of speaker sex in electrolaryngeal speech*. Poster presentation at the Annual Convention of the American Speech-Language-Hearing Association, Boston, MA.

Day, A. M. B., Dzioba, A., Rasmussen, S., Reid, J., Beaudin, P., **Eadie, T.** & Doyle, P. C. (2007, November). *Perceived voice disability in esophageal, tracheoesophageal, and electrolaryngeal speakers*. Poster presentation at the Annual Convention of the American Speech-Language-Hearing Association, Boston, MA.

Eadie, T. L. (2007, June). *Scaling of vocal effort and listener comfort in adductor spasmodic dysphonia*. Poster presentation at the 36th Annual Symposium of the Voice Foundation. Philadelphia, PA.

Day, A., **Eadie, T.**, & Doyle, P. (2006, November). *Influence of post-treatment duration on quality of life in tracheoesophageal speakers*. Poster presentation at the Annual Convention of the American Speech-Language-Hearing Association, Miami, FL.

Doyle, P. C., **Eadie, T. L.**, Beaudin, P. G., & Myers, C. (2006, November). *Exploring quality of life in individuals with head and neck cancer*. Poster presentation at the Annual Convention of the American Speech-Language-Hearing Association, Miami, FL.

Eadie, T. L., Nicolici, C., Baylor, C. R., Waugh, P., Almand, K., & Maronian, N. (2006, November). *Effect of listener experience on judgments of adductor spasmodic dysphonia*. Poster presentation at the Annual Convention of the American Speech-Language-Hearing Association, Miami, FL.

Yorkston, K. M., **Eadie, T. L.**, Baylor, C. R., Miller, R. M., & Deitz, J. (2006, November). *Developing a scale of communicative participation*. Seminar presentation at the Annual Convention of the American Speech-Language-Hearing Association, Miami, FL.

Eadie, T. L., Doyle, P.C., Hansen, K., & Beaudin, P.G. (2006, June). *Naïve listeners' judgments of tracheoesophageal speech*. Poster presentation at the 35th Annual Symposium of the Voice Foundation. Philadelphia: PA.

Deitz, J., Dudgeon, B., Klasner, E., **Eadie, T.**, Amtmann, D., Baylor, C., Miller, R., & Yorkston, K. (2006, April). *Developing a measure of communicative participation: A mixed-method approach*. Presentation at the Annual Convention of the American Occupational Therapy Association. Charlotte, NC.

Baylor, C. R., Yorkston, K., M., **Eadie, T. L.**, & Maronian, N. (2006, March). *Understanding the outcomes of BOTOX® treatment for spasmodic dysphonia from the client's perspective*. Poster presentation at the Biennial Conference of Motor Speech Disorders. Austin: TX.

Doyle, P. C., **Eadie, T. L.**, Myers, C., & Beaudin, P. G. (2006, March). *Exploring quality of life in individuals with head and neck cancer*. Poster presentation at the 2nd International Cancer Rehabilitation Conference Survivorship: Moving Forward after Treatment, sponsored by the University of British Columbia, Vancouver, B.C., Canada.

Beaudin, P. G., **Eadie, T. L.**, & Doyle, P. C. (2005, November). *Psychophysical evaluation of pleasantness and acceptability for electrolaryngeal speech*. Poster presentation at the Annual Convention of the American Speech-Language-Hearing Association, San Diego, CA.

Doyle, P. C., Hillman, R. E., Beaudin, P. G., Meltzner, G., Saikachi, Y., Stevens, K., & **Eadie, T. L.** (2005, November). *Improving electrolarynx speech: Current and future directions*. Seminar presentation at the Annual Convention of the American Speech-Language-Hearing Association, San Diego, CA.

Eadie, T. L., Baylor, C. R., & Yorkston, K. M. (2005, November). *Measuring the functional impact of voice disorders*. Seminar presentation at the Annual Convention of the American Speech-Language-Hearing Association, San Diego, CA.

Baylor, C. R., Yorkston, K. M., & **Eadie, T. L.** (2005, November). *What patients teach us about experiencing spasmodic dysphonia and botox*. Seminar presentation at the Annual Convention of the American Speech-Language-Hearing Association, San Diego, CA.

Yorkston, K. M., Klasner, E. R., Baylor, C. R., & **Eadie, T. L.** (2005, November). *Dimensions of satisfaction with communicative participation: Adults with neurologic disorders*. Poster presentation at the Annual Convention of the American Speech-Language-Hearing Association, San Diego, CA.

Doyle, P.C., Durdle, M., Beaudin, P. G., & **Eadie, T. L.** (2005, October). *Auditory-perceptual evaluation of voice acceptability and listener comfort in non-normal vocal signals*. Technical/Platform presentation at the Annual Meeting of the Canadian Acoustical Association, London, ON, Canada.

Doyle, P.C., & **Eadie, T. L.** (2005, October). *Acoustic and psychophysical relationships and the classification of dysphonic voice*. Technical/Platform presentation at the Annual Meeting of the Canadian Acoustical Association, London, ON, Canada.

Eadie, T. L., & Baylor, C. R. (2005, October). *Functional measures of voice disorders: A client-centered approach*. Seminar presentation at the Annual Convention of the Washington Speech and Hearing Association, Blaine, WA.

Eadie, T. L., & Baylor, C. R. (2005, June). *The effect of perceptual training on listeners' judgments of dysphonic voice*. Platform/technical presentation at the Annual Symposium of the Voice Foundation, Philadelphia, PA.

Doyle, P.C., **Eadie, T. L.**, Beaudin, P. G., White, H.D., & Myers, C. (2004, November). *Long-term clinical care considerations in head and neck cancer*. Mini-seminar at the Annual Convention of the American Speech-Language-Hearing Association, Philadelphia, PA.

Eadie, T. L., & Doyle, P. C. (2004, November). *Quality of life in male tracheoesophageal (TE) speakers*. Poster presentation at the Annual Convention of the American Speech-Language-Hearing Association, Philadelphia, PA.

Beaudin, P. G., Doyle, P.C., & **Eadie, T. L.** (2004, October). *Effects of listener experience on direct magnitude estimation and interval scaling of pleasantness and acceptability for electrolaryngeal speech*. Poster presentation at the Annual Conference of the Ontario Speech-Language and Hearing Association, Toronto, ON.

Beaudin, P.G., Doyle, P.C., & **Eadie, T. L.** (2004, May). *Psychophysical evaluation of pleasantness and acceptability for electrolaryngeal speech*. Poster presentation at the Annual Conference of the Canadian Association of Speech-Language Pathologists and Audiologists, Ottawa, ON, Canada.

Doyle, P. C., Anderson, J., DeLuca, M., Black, M., Merrick, G., & **Eadie, T. L.** (2004, May). *A clinical method for quantifying acoustic variability in spasmodic dysphonia*. Poster presentation at the Annual Conference of the Canadian Association of Speech-Language Pathologists and Audiologists, Ottawa, ON, Canada.

Doyle, P. C., Anderson, J., DeLuca, M., Black, M., Merrick, G., & **Eadie, T. L.** (2004, May). *Measurement of voice handicap: Voice Handicap Index vs. Voice-Related Quality of Life Instrument*. Poster presentation at the Annual Conference of the Canadian Association of Speech-Language Pathologists and Audiologists, Ottawa, ON, Canada.

Adams, S.G., Jog, M., **Eadie, T.**, Dykstra, A., Gauthier, G., & Vercher, J.L. (2004, March). *Jaw and finger movements during visual and auditory motor tracking in Parkinson's disease*. Poster presentation at the Biennial Conference of Motor Speech Disorders. Albuquerque: NM.

Doyle, P. C., **Eadie, T. L.**, Beaudin, P.G., & White, H. D. (2003, November). *V-RQOL in alaryngeal speakers*. Poster presentation at the Annual Convention of the American Speech-Language-Hearing Association, Chicago, IL.

Eadie, T. L. (2003, November). *International classification of functioning, disability, and health and postlaryngectomy rehabilitation*. Poster presentation at the Annual Convention of the American Speech-Language-Hearing Association, Chicago, IL.

Eadie, T. L., Doyle, P. C., & Beaudin, P. G. (2003, November). *Evaluation of TE speech: Auditory-perceptual scaling and QOL*. Poster presentation at the Annual Convention of the American Speech-Language-Hearing Association, Chicago, IL.

Eadie, T. L., Myers, C., & Doyle, P. C. (2003, May). *New perspectives: Care of persons with head and neck cancer*. Miniseminar at the Annual Conference of the Canadian Association of Speech-Language Pathologists and Audiologists, St. John's, NF.

Eadie, T.L., & Doyle, P. C. (2002, November). *Perceptual scaling of severity and pleasantness in dysphonic speakers*. Poster presentation at the Annual Convention of the American Speech-Language-Hearing Association, Atlanta, GA.

Eadie, T. L., & Doyle, P. C. (2001, November). *DME and EAI Scaling of Naturalness and Severity in Tracheoesophageal Speakers*. Poster presentation at the Annual Convention of the American Speech-Language-Hearing Association, New Orleans, LA.

Eadie, T. L., & Doyle, P. C. (2001, August). *Application of auditory-perceptual methods in alaryngeal speech*. Poster presentation at the International Association of Logopaedics and Phoniatics, Montreal, Quebec.

Eadie, T. L., & Doyle, P. C. (2000, November). *Normalizing DME scale perceptual data: A new method of analysis*. Poster presentation at the Annual Convention of the American Speech-Language-Hearing Association, Washington, D.C.

Eadie, T. L., & Doyle, P. C. (1999, November). *A perceptual investigation of vocal quality using backward speech*. Poster presentation at the Annual Convention of the American Speech-Language-Hearing Association, San Francisco, CA.

EVIDENCE OF TEACHING EFFECTIVENESS

Courses Taught at University of Washington (Grouped by Course; Scores range from 1-5)

Quarter	Course Number and Title	# stdts	Adj. Mdn	
			# Cr	(#1-#4)
Autumn 2003	SPHSC 535: Voice and Resonance Disorders	18	4	3.8
Autumn 2004	SPHSC 535: Voice and Resonance Disorders	18	4	4.0
Autumn 2005	SPSHC 535: Voice and Resonance Disorders	23	4	4.4
Winter 2007	SPHSC 535: Assessment/Treatment of Voice Disorders	53	4	4.4
Winter 2008	SPHSC 535: Assessment/Treatment of Voice Disorders	42	4	4.5
Winter 2009	SPHSC 535: Assessment/Treatment of Voice Disorders	35	4	4.2
Winter 2010	SPHSC 535: Assessment/Treatment of Voice Disorders	33	4	4.2
Winter 2011	SPHSC 535: Assessment/Treatment of Voice Disorders	40	4	5.0
Winter 2012	SPHSC 535: Assessment/Treatment of Voice Disorders	42	4	4.5
Spring 2004	SPHSC 320: Anatomy/Physiology of Speech Mechanism	75	5	4.3
Spring 2005	SPHSC 320: Anatomy/Physiology of Speech Mechanism	67	5	4.3
Spring 2006	SPHSC 320: Anatomy/Physiology of Speech Mechanism	65	5	4.7
Spring 2007	SPHSC 320: Anatomy/Physiology of Speech Mechanism	65	5	4.6
Spring 2008	SPSHC 320: Anatomy/Physiology of Speech Mechanism	61	5	4.7
Spring 2009	SPHSC 320: Anatomy/Physiology of Speech Mechanism	79	5	4.6
Spring 2010	SPHSC 320: Anatomy/Physiology of Speech Mechanism	75	5	NA
Spring 2011	SPHSC 320: Anatomy/Physiology of Speech Mechanism	80	5	4.7
Winter 2005	SPHSC 504: Research Methods in Speech and Hearing	28	3	4.1
Winter 2006	SPHSC 504: Research Methods in Speech and Hearing	31	3	4.1
Autumn 2007	SPHSC 506: Evidence-Based Practice in Speech/Lang Path	41	3	3.6
Autumn 2007	SPHSC 545: Assessment/Trmt Voice Dis in Med Settings	24	4	3.9
Autumn 2008	SPHSC 545: Assessment/Trmt Voice Dis in Med Settings	25	4	5.0
Autumn 2009	SPHSC 545: Assessment/Trmt Voice Dis in Med Settings	22	2	4.2
Autumn 2010	SPHSC 545: Assessment/Trmt Voice Dis in Med Settings	17	2	4.1
Autumn 2011	SPHSC 545: Assessment/Trmt Voice Dis in Med Settings	25	2	4.8
Autumn 2012	SPHSC 545: Assessment/Trmt Voice Dis in Med Settings	25	2	4.1
Autumn 2009	SPHSC 565: Professional Seminar in S-LP	34	1	4.3
Autumn 2010	SPHSC 565: Professional Seminar in S-LP	40	1	NA
Autumn 2011	SPHSC 563: Instructional Development Forum	10	1	4.5
Winter 2012	SPHSC 563: Instructional Development Forum	8	1	4.9

Graduate Students Supervised

Ph.D. Students: Committee Chair

Carolyn Baylor Fall 2005 – Summer 2007

Dissertation Title: “Initial psychometric testing of the Communicative Participation Scale using Item Response Theory in a spasmodic dysphonia sample”

Kathy Nagle Spring 2009 – current

Derek Isetti Fall 2010 - current

Ph.D. Students: Advisory Committee

Deanna Britton Fall 2008 – Winter, 2012
Lana VanBoven Fall 2008 – Winter 2010
Ayoub Daliri Fall 2009 – Winter, 2011

Ph.D. Students: Dissertation Reading Committee

Amber Franklin Spring 2009 – Summer 2009
Deanna Britton Fall 2011 – Winter, 2012

Laryngology Medical Resident Projects

Stephanie Misono Spring 2008 – Fall 2008
Title “Developing perceptual judgment reliability in otolaryngology residents”

Master’s Students: Committee Chair

Christina Nicolici Fall 2005 – Summer 2006
Title: “The effect of listener experience on listener judgments of adductor spasmodic dysphonia”
Yumi Sumida Fall 2006 – Summer 2007
Title: “The effect of speaking rate, fundamental frequency, and vocal tract on perception of speaker gender in electrolaryngeal speech”
Eboli Giannini Fall 2006 – Summer 2007
Title: “The effect of two training programs on naïve listeners’ judgments of disordered voices”
Derek Wright Spring 2007 – Summer 2009
Title: “The effect of fundamental frequency and gender on judgments of electrolaryngeal speech”
Mara Kapsner Spring 2007 – Summer 2009
Title: “The effect of anchor samples on listeners’ judgments of dysphonia”
Brienne Bowker Summer 2009 – Summer 2010
Title: “Quality of life and coping in individuals after total laryngectomy”
Tiffany Ackerman Summer 2009 – Summer 2010
Title: “Baseline voice characteristics of beginning performing arts students”
Kristin Lamvik Summer 2010 – Summer 2011
Title: “Communicative participation and quality of life in head and neck cancer survivors”
Elizabeth Seagrave Summer 2011 – Summer 2012
Title: “The Effect of Speech Intelligibility on Listener Self-Perception of Effort in Electrolaryngeal Speech”
Jordan Johnson Summer 2011 – Summer 2012
Title: “A Comparison Between Self-Rated and Listener-Rated Outcomes in Tracheoesophageal Speech”

Master’s Students: Advisory Committee

Erin Wiley Fall 2005 – Summer 2006
Dana Slocumb Fall 2006 – Summer 2007
Kelly Morgan Spring 2007 – Summer 2008
Emily Blond Spring 2007 – Summer 2008
Jessica Grittner Fall 2007 – Spring 2009
Audra McAllen Fall 2008 – Summer 2009
Christa Gray Summer 2009 – Fall 2010
Joanna Ristow Fall 2011 – Summer 2012
Lauril Sachet Fall 2012 – present
Audra Boxberger Fall 2012 – present

Laine Anderson Fall 2012 - present

Undergraduate Students: Advisor for Honors Project

Sarie Lattyak Fall 2004 – Spring 2005

Title: “Communication participation: The clinician’s perspective”

Lana VanBoven Fall 2006 – Spring 2007

Title: “The effect of musical background on judgments of dysphonia”

Kelli Stubbs Fall 2006 – Spring 2007

Title: “Judgments of dysphonia in non-musicians”

Caroline Bishop Fall 2006 – Spring 2007

Title: “The effect of fundamental frequency on speaking rate, acceptability, and intelligibility of electrolaryngeal speech”

Alicia Sroka Fall 2008 – Spring 2009

Title: “Does knowledge of medical diagnosis affect judgments of voice quality?”

Raevyn Leach Fall 2010 – Spring 2011

Title: “Vocal characteristics of singing and acting students”

Linnea Xuereb

Title: “Do listeners’ perceptions of confidence relate to self-perceived handicap in spasmodic dysphonia?”

Direction of Independent Studies (e.g., SPHSC 499)

<u>Student(s)</u>	<u>Quarter</u>	<u>Course</u>	<u>Credits</u>
Paige Perrone, Heather Reid	Summer 2004	SPHSC 499	2 cr
Paige Perrone, Heather Reid, Lindsay Bjork	Fall 2004	SPHSC 499	2 cr
Hsiao-Lan Pan, Lindsay Bjork	Winter 2005	SPHSC 499	1-2 cr
Hsiao-Lan Pan, Lindsay Bjork	Spring 2005	SPHSC 499	2 cr
Brooke Wieser, Gina Kang	Summer 2005	SPHSC 499	2 cr
Jody Guariz	Fall 2005	SPHSC 499	1 cr
Jody Guariz, Lana VanBoven	Winter 2006	SPHSC 499	1-2 cr
Jody Guariz, Lana VanBoven	Spring 2006	SPHSC 499	2 cr
Katherine Campbell	Spring 2006	General Studies 350	2 cr
Star Reed	Summer 2006	SPHSC 499	2 cr
Ashlie Stegeman	Fall 2006	SPHSC 499	3 cr
Ashlie Stegeman	Winter 2007	SPHSC 499	3 cr
Ashlie Stegeman	Spring 2007	SPHSC 499	2 cr
Rebecca Lewis	Summer 2007	SPHSC 499	2 cr
Alicia Sroka	Spring 2008	SPHSC 499	1 cr
Deanna Britton	Winter, Spring 2009	SPHSC 600	1 cr
Dayna Willet	Fall 2009-Spr 2010	SPHSC 499	1-3cr
Devon Sawin	Fall 2009-Spr 2010	SPHSC 499	1-2cr

Direction of Teaching Practicum

Lakshmi Venkatesh Spring 2004 SPHSC 320

Student Mentored Awards

Caroline Bishop Mary Gates Research Scholarship, 3 quarters (\$1500 / quarter)
Fall 2006 – Spring 2006

Kelli Stubbs Mary Gates Research Scholarship, 2 quarters (\$1500 / quarter)
Winter 2006 – Spring 2006

Mara Kapsner Students Preparing for Academic and Research Careers (SPARC)

	Award, <i>American Speech-Language-Hearing Association</i> Fall 2007, \$1500
Alicia Sroka	Mary Gates Research Scholarship, 3 quarters (\$2000 / quarter) Fall 2008 – Spring 2009
Christine Williams (Vanderbilt University)	Students Preparing for Academic and Research Careers (SPARC) Award, <i>American Speech-Language-Hearing Association</i> Fall 2010 (Member of Advisory Committee), \$1500
Linnea Xuereb	Mary Gates Research Scholarship, 3 quarters (\$2000 / quarter) Fall 2011 – Spring 2012

University of Washington, Graduate School Representative, Ph.D. Thesis
 Andrew Simpson Childs, Ph.D. Candidate in Music, Spring 2005
 Ming Tsu, Ph.D. Candidate in Music, Winter 2005 – Spring 2006

GUEST LECTURES:

University of Washington, Department of Speech and Hearing Sciences. (2012, December). *Undertaking a thesis in the Master's Program in Speech-language Pathology*. Guest lecture for Professional Seminar in Speech-Language Pathology, SPHSC 563.

University of Washington, Department of Speech and Hearing Sciences. (2011, September). *To do a thesis... or not to do a thesis... that is the question!* Guest lecture for Professional Seminar in Speech-Language Pathology, SPHSC 563.

University of Washington, Department of Speech and Hearing Sciences. (2010, July). *Introduction to voice disorders*. Guest lecture for Introduction to Communication Disorders, SPHSC 250.

University of Washington, Department of Speech and Hearing Sciences. (2009, August). *Introduction to voice disorders*. Guest lecture for Introduction to Communication Disorders, SPHSC 250.

University of Washington, Department of Speech and Hearing Sciences. (2008, September). *Gross anatomy, part 1*. Guest lecture for Neural Basis for Behavior: Speech, Swallowing, Language, and Audition, SPHSC 501.

University of Washington, Department of Speech and Hearing Sciences. (2008, August). *Introduction to voice disorders*. Guest lectures for Introduction to Communication Disorders, SPHSC 250.

University of Washington, Department of Speech and Hearing Sciences. (2006, January). *Ethical issues surrounding laryngeal transplants*. Guest lecture for Speech-Language Pathology Seminar, SPHSC 565.

University of Washington, Department of Speech and Hearing Sciences. (2005, October). *Otolaryngology and speech-language pathology: A team approach*. Guest lecture for Medical Speech-Language Pathology, SPHSC 533.

University of Washington, Department of Speech and Hearing Sciences. (2005, October). *Methods of assessment and treatment in head and neck cancer*. Guest lecture for Medical Speech-Language Pathology, SPHSC 533.

University of Washington, Department of Speech and Hearing Sciences. (2004, October). *The role of the speech-language pathologist in head and neck cancer*. Guest lecture for Medical Speech-Language Pathology, SPHSC 533.

University of Western Ontario, Perspectives in Rehabilitation Sciences Seminar Series, RS 600. (2001, October). *The ICIDH-2: A Proposed Framework for Comprehensive Rehabilitation of Individuals who use Alaryngeal Speech and Voice*.

University of Western Ontario, School of Communication Sciences and Disorders. (2001, March). *Contemporary Perspectives in Perceptual Assessment of Voice*. Lecture for Speech Science, CSD 497b.

University of Western Ontario, Perspectives in Rehabilitation Sciences Seminar Series, RS 600. (2000, March). *Contemporary Perspectives in Post-laryngectomy rehabilitation*.

ANNETTE MERCER ESTES

CURRICULUM VITAE

January 15, 2013

University of Washington
Box 357920
Seattle, WA 98195
Phone: (206) 543-7326
E-mail address: estesa@u.washington.edu

PERSONAL DATA

Place of Birth: Bellevue, Washington
Citizenship: United States
Date of Birth: December 25, 1965

EDUCATION

1998, Ph.D. University of Washington, Seattle, WA, (Child Clinical Psychology)
1994, M.S. University of Washington, Seattle, WA, (Child Clinical Psychology)
1988, B.A. The Evergreen State College, Olympia, WA

POSTGRADUATE TRAINING

1998 APA-approved clinical psychology internship,
Primary Children's Hospital, Salt Lake City, UT

FACULTY POSITIONS HELD

2011-present Research Associate Professor, Department of Speech and Hearing Sciences, University of Washington
2011-present Adjunct Research Associate Professor, Department of Psychology, University of Washington
2009-2011 Research Assistant Professor, Department of Speech and Hearing Sciences, University of Washington
2007-2011 Adjunct Research Assistant Professor, Department of Psychology, University of Washington
2005-2009 Research Assistant Professor, Department of Psychiatry and Behavioral Sciences, University of Washington

CURRENT LICENSE

2000-present State of Washington, Licensed Psychologist (PY00002421)

PROFESSIONAL ORGANIZATIONS and HONORS

American Psychological Association
Autism Speaks Toddler Treatment Network
International Society for Autism Research
Psychiatric Research Society
Young Investigator Travel Award, Psychiatric Research Society (2008)

TEACHING RESPONSIBILITIES

Mentor: Postdoctoral Fellows
2010 Erin Olson, Ph.D.
2008-2010 Tanya St. John, Ph.D.
2009 Cynthia Polance, Psy.D.
2005-2006 Mandy Steiman, Ph.D.
2004 Laura Malcy, Ph.D.

Doctoral Committee Chair

Philip Cali, Department of Education, University of Washington
Shanna Alvarez, Department of Education, University of Washington

Doctoral Committee Member

Kathryn Greenslade, Department of Speech and Hearing Sciences, University of Washington
Erin Haven, Department of Psychology, Seattle Pacific University
Lindsey Sterling, Department of Psychology, University of Washington
Behavioral and physiological characteristics associated with anxiety in adolescents with autism spectrum disorder
Lauren Elder, Department of Psychology, University of Washington,
The relationship between parent training and parent-child interaction in autism

Doctoral Biology Exam Committee Member

Matthew Bryan, Department of Biostatistics, University of Washington

Masters Thesis Advisor

Lindsay Williams, Department of Speech and Hearing Sciences, University of Washington

Undergraduate Honors Advisor

Danielle Ung, University of Washington, Department of Psychology
An investigation of the effects of behavior problems in children with autism spectrum disorder on mothers' vs. fathers' stress levels
Kai Chi Yam, University of Washington, Department of Psychology
The relation between infant temperament and parenting-related stress
Samantha Johnson, University of Washington, Dept of Psychology
Autistic Disorder: Parental distress and the quality of parent-child interactions
Lindsey Fisch, University of Michigan at Kalamazoo
Intervention history of children with autism spectrum disorders.

Invited Course Lectures, University of Washington

2010 Department of Speech and Hearing Sciences: Autism spectrum disorders: Assessment, diagnosis, intervention; Research on neurobiology of autism
2003-present Department of Psychology, selected topics: Autism Spectrum Disorders; Career and Professional Development; Autism Research:
2000-2006 Department of Rehabilitation Medicine, Autism Spectrum Disorders
1992-1996 Department of Psychology, selected topics: Child Depression, Parenting Practices, Introduction to Clinical Intakes with Children, Introduction to Child Clinical Psychology, Intelligence Assessment

Course Instructor, University of Washington

1995, 1996 Department of Psychology: Child Behavior Disorders (Psych 410)
1993-1994 Departments of English and Psychology: Writing Link to Introductory Psychology (Engl 197)

Teaching Assistant, University of Washington

1991-1997 Graduate: Advanced Child Assessment, Intelligence Assessment, Clinical Methods, Clinical Ethics, Undergraduate: Personality Theory, Child Development, Abnormal Psychology

RESEARCH FUNDING

Current:

06/01/12-05/31/15, *Strengthening the effects of parent-delivered early intervention to improve symptoms of ASD*, Autism Speaks Foundation (**Estes**, PI). \$760,487 total costs

08/01/07-07/31/13, *A Multi-Site Randomized Study of Intensive Treatment for Toddlers with Autism*, NIMH R01MH081757, (Rogers, network PI; **Estes**, PI-UW site), \$4,599,377 total costs-UW site

07/01/07-6/30/13, *A Longitudinal MRI Study of Infants at Risk for Autism*, NIH, R01 HD055741, (Piven, network PI, Dager; PI/ **Estes**, Co-PI UW site) \$2,035,962 total costs-UW (\$716,571 total costs-**Estes**)

07/01/07-06/30/13, *Behavioral Quality Control for a Longitudinal MRI Study of Infants at Risk for Autism*, NIH R01 HD055741 (**Estes**, PI), \$197,403 total costs

04/01/08-03/31/13, *ACE Supplement to a Longitudinal MRI Study of Infants at Risk for Autism*, R01 HD55741 (Piven, Network PI, Dager, UW Site PI/**Estes**, Co-PI UW site)

09/20/08-6/30/13, *A Longitudinal MRI Study of Infants at Risk for Autism-NIH Supplement*, NIH R01 HD055741, (Piven, network PI, Dager; PI/**Estes**, Co-PI UW site), \$513,646 direct costs-UW

09/20/08-6/30/13, *Longitudinal Brain Imaging Study of Infants Not Progressing to Autism*, Simons Foundation, (Piven, network PI, Dager PI/ **Estes**, Co-PI UW site), \$187,500 direct costs-UW

02/01/09-01/31/13, *Collaborative Risk and Outcome Scientific Study*, Autism Speaks 6020 (Piven and Newshaeffer, network Co-PIs, Dager, UW site PI/**Estes**, co-investigator), \$107,143 total costs

02/01/09-01/31/13, *Collaborative Risk and Outcome Scientific Study: Behavioral Reliability Core*, Autism Speaks 6020 (PI: **Estes**), \$75,551 total costs

Pending:

07/01/12-06/30/17, *A Longitudinal MRI Study of Infants at Risk for Autism*, R01 HD12196 (Piven Network PI, **Estes**, **UW Site Co-PI**), approved for funding

07/01/12-06/30/17, *A Longitudinal MRI Study of Infants at Risk for Autism – Behavioral Core*, R01 HD12196 (Piven Network PI, **Estes**, **PI**), approved for funding

01/01/13-12/30/17, *Intervention Effects of Intensity and Delivery Style for Toddlers with ASD*, R01 HD12196 (Rogers Network PI, **Estes**, **UW site PI**), approved for funding

Past:

09/01/09- 08/31/12, *A Longitudinal 3-D MRSI Study of Infants at High Risk for Autism*. NICHD R01HD065283 (Dager, PI, **Estes**, Co-investigator), \$447,523 direct costs

08/01/07-07/31/12, *UW Autism Center of Excellence (ACE) Diagnostic and Assessment Core (Core A)*, NIH P50 HD055782, (**Estes**, PI), \$1,950,000 total costs

08/01/07-07/31/12, *UW Autism Center of Excellence (ACE) Risk and Protective Factors in the Development of Associated Conditions in Autism (Project V)*, NIH P50 HD055782, (**Estes**, PI), \$698,396 total costs

08/01/07-07/31/12, *UW Autism Center of Excellence (ACE) Endophenotypes in Autism (Project I)*, NIH P50 HD055782, (Wjisman, PI; **Estes**, co-investigator), total costs

7/01/12-06/31/15, *Enhancing the effects of parent-implemented intervention*, Autism Speaks, (**Estes, PI**), \$760,487 total costs

03/01/2009-02/28/2012, *Investigation of the Link Between Early Brain Enlargement and Abnormal Functional Connectivity in Autism Spectrum Disorders*, Autism Speaks 3628 (Kleinhans PI; **Estes**, Co-investigator), \$386,394 direct

05/01/07-04/30/10, *A Randomized Clinical Trial of Early Intervention for Infants at Risk for Autism: Early Start Denver Model*, Autism Speaks Foundation (Rogers, network PI; **Estes**, PI-UW site), \$450,000 total costs-UW site

06/01/97-05/31/07, *Collaborative Program of Excellence in Autism (CPEA) Neurobiology and Genetics of Autism*, NIH/NICHD: PO1 HD 34565, (Dawson, PI; **Estes**, Associate Director, 2000-2007)

07/01/02-06/30/07, *Early Detection of Pervasive Developmental Disorders*, NICHD: RO1 HD3961, (Fein, network PI; Dawson, PI-UW site; **Estes**, supervising psychologist 2005-2007)

10/01/03-09/30/04, *Supplement to Neurobiology and Genetics of Autism* NIMH: PO1 HD 34565, (Dawson, PI, **Estes**, supervising psychologist);

06/01/97-05/31/07, *Collaborative Program of Excellence in Autism (CPEA) Neurobiology and Genetics of Autism*, NIH/NICHD: PO1 HD 34565, (Dawson, PI; **Estes**, Research scientist, 1998-2000)

1992-1994, *FAST Track Project*, University of Washington, Department of Psychology, (Greenberg/McMahon, PI; **Estes**, Graduate research assistant)

1988-1991, *Oregon Social Learning Center*, Eugene, OR, (T. J. Dishion, PI; **Estes**, research assistant)

CLINICAL EXPERIENCE

2001-2003, *University of Washington Autism Center Clinic*, staff psychologist

2000-2001, *University of Washington, Department of Psychology*, clinical supervisor

1997, *University of Washington, Department of Psychology, Psychological Services and Training Center*, Acting Clinic Director, Supervisor: Corey Fagan, Ph.D.

1995-1997, *University of Washington, Department of Psychology, Psychological Services and Training Center*, Clinical Intake-Teaching Assistant, Supervisor: Corey Fagan, Ph.D.

1994-1995, *Mary Bridge Children's Health Center, Tacoma, WA*, Psychology Extern, Supervisors: Robert Beilke, Ph.D., Arthur Lewy, Ph.D.

1994-1995, *University of Washington Department of Family and Child Nursing Parenting Clinic Parent Training Group* Co-therapist, Supervisor: Carolyn Webster-Stratton, Ph.D.

1993-1994, *University of Washington Outpatient Psychiatry, Parent Evaluation Training Program* Psychology Extern, Supervisor: G. Andrew H. Benjamin, J.D., Ph.D.

1992, *University of Washington, Department of Psychology, FAST (Families and Schools Together) Track Project Social Skills Group* Co-facilitator, Supervisor: Mark T. Greenberg, Ph.D.

BIBLIOGRAPHY

A: Refereed Journals

- Anney, R., et al (in press). Individual common variants exert weak effects on risk for autism spectrum disorder. *Human Molecular Genetics*.
- Anney, R., Klei, L., Pinto, D., Regan, R., Conroy, J., Magalhaes, T.R., Correia, C., Abrahams, B.S., Sykes, N., Pagnamenta, A.T., Almeida, J., Bacchelli, E., Bailey, A.J., Baird, G., Battaglia, A., Berney, T., Bolshakova, N., Bölte, S., Bolton, P.F., Bourgeron, T., Brennan, S., Brian, J., Carson, A.R., Casallo, G., Casey, J., Chu, S., Cochrane, L., Corsello, C., Crawford, E.L., Crossett, A., Dawson, G., de Jonge, M., Delorme, R., Drmic, I., Duketis, E., Duque, F., **Estes, A.**, et al. (2011). A genomewide scan for common alleles affecting risk for autism. *Human Molecular Genetics*, 19(20), 4072-4082. (PMC2947401)
- Autism Genome Project Consortium, Szatmari, P., Paterson, A. D., Zwaigenbaum, L., Roberts, W., Brian, J., Liu, X. Q., Vincent, J. B., Skaug, J. L., Thompson, A. P., Senman, L., Feuk, L., Qian, C., Bryson, S. E., Jones, M. B., Marshall, C. R., Scherer, S. W., Vieland, V. J., Bartlett, C., Mangin, L. V., Goedken, R., Segre, A., Pericak-Vance, M. A., Cuccaro, M. L., Gilbert, J. R., Wright, H. H., Abramson, R. K., Betancur, C., Bourgeron, T., Gillberg, C., Leboyer, M., Buxbaum, J. D., Davis, K. L., Hollander, E., Silverman, J. M., Hallmayer, J., Lotspeich, L., Sutcliffe, J. S., Haines, J. L., Folstein, S. E., Piven, J., Wassink, T. H., Sheffield, V., Geschwind, D. H., Bucan, M., Brown, W. T., Cantor, R. M., Constantino, J. N., Gilliam, T. C., Herbert, M., Lajonchere, C., Ledbetter, D. H., Lese-Martin, C., Miller, J., Nelson, S., Samango-Sprouse, C. A., Spence, S., State, M., Tanzi, R. E., Coon, H., Dawson, G., Devlin, B., **Estes, A.**, et al. (2007). Mapping autism risk loci using genetic linkage and chromosomal rearrangements. *Nature Genetics*, 39(3), 319-328.
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B: Book Chapters

- Estes, A.**, Hus, V., Elder, L. (2011). Family adaptive functioning in autism. In D. Amaral, G. Dawson, & D. Geschwind (Eds.), *Autism Spectrum Disorders*, pp. 1182-1195.
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C: Other Publications

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- Estes, A.**, Bernier, R., & Dawson, G. (2004). *Broader Phenotype Autism Symptom Scale; Reliability Manual*. Unpublished Manuscript, UW Autism Center Research Program, Seattle, WA.
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D: Submitted Manuscripts

- Estes, A.**, Vismara, L., Mercado, C., Fitzpatrick, A., Elder, L., Greenson, J., Lord, C., Munson, J., Winter, J., Young, G., Rogers, S. (submitted). The impact of parent-delivered intervention on parents of young children with autism.
- Estes, A.**, Zwaigenbaum, L., Gu, H., St. John, T., Paterson, S., Elison, J., Hazlett, H., Botteron, K., Dager, S., Schultz, R., Kostopoulos, P., Evans, A., Dawson, G., Eliason, J., Alvarez, S., Piven, J. and the IBIS network (submitted). Behavioral, cognitive and adaptive skill development in infants at risk for autism spectrum disorder in the first 2 years.

E: Abstracts and Refereed Presentations

- Alvarez, S., **Estes, A.**, Elgin, J., LeBlanc, B., Rosenberg, A., and the IBIS network. *Communication spontaneity in infants at high and low risk for ASD* (2012, May). Presentation at the International Meeting for Autism Research, Toronto, Canada.
- Brock, C., **Estes, A.**, Sterling, L., & Munson, J. (2010, May). *Associated Psychiatric Conditions, Problem Behavior and Adaptive Functioning in Adolescents with ASD*. Poster presented at the International Meeting for Autism Research, Philadelphia, PA.
- Bryan, M.W., **Estes, A.**, & Dager, S.R., (2010, May). *Longitudinal Study of Repetitive Behavior and Volumes of the Caudate and Thalamus in Children with Autism Spectrum Disorder Between 3 and 9 Years of Age*. Poster presented at the International Meeting for Autism Research, Philadelphia, PA.
- Burner, K., Venema, K.J., Jones, E., **Estes, A.**, King, B., & Webb, S.J. (2010, May). *Examining Temperament in a Longitudinal Study of High-Risk Infants for ASD*. Poster presented at the International Meeting for Autism Research, Philadelphia, PA.

- Cali, P.W., **Estes, A.**, St. John, T., Munson, J. & Dawson, G. (2011, May). *Spatial working memory and patterns of academic achievement in 9-year-old children with ASD*. Poster presented at the International Meeting for Autism Research, San Diego, CA.
- Coffey-Corina, S., Padden, D., Estes, A., & Kuhl, P.K. (2011, May). *ERPs to Words In Toddlers with ASD Predict Behavioral Measures at 6 Years of Age*. Poster presented at the annual meeting of the International Meeting for Autism Research, San Diego, CA
- Corrigan, N.M., Olson, M., Richards, T., Shaw, D.W.W., Estes, A., Posse, S., Dager, S.R., (2012). Brain chemical concentrations in autism spectrum disorder at 6, 12, and 24 months as measured with magnetic resonance spectroscopic imaging. International Society for Magnetic Resonance Medicine, Melbourne, Australia.
- Dawson, G., Munson, J., **Estes, A.** & Abbot, R. (2003, April). *Early neurocognitive predictors of outcomes in autism*. Poster session presented at the Society for Research on Child Development.
- Dawson, G., Webb, S., **Estes, A.**, Munson, J., & Faja, S. (2005). *Neurophysiological and behavioral evidence of social impairments in relatives of children with autism*. Paper presented at the annual meeting of the NIH Collaborative Program of Excellence and START programs, Bethesda, MD.
- Dawson, G., Webb, S., Wijsman, E., Schellenberg, G., **Estes, A.**, Munson, J., & Faja, S. (2005, April). *Face processing is altered in parents of children with autism: Neurocognitive and neurophysiological evidence*. Poster session presented at the biennial meeting of the Society for Research on Child Development, Atlanta, GA.
- Elder, L., **Estes, A.**, Rogers, S., & Zebrowski, S. (2011, May). *Characterizing Parent-Child Interaction in Young Children with ASD Background*. Poster presented at the International Meeting for Autism Research, San Diego, CA.
- Elder, L., **Estes, A.**, Dawson, G., & Munson, J. (2008, May). *Community intervention for autism (1998-2003): Did we meet the guidelines?* Presented at the International Meeting for Autism Research. London, England.
- Elder, L., **Estes, A.**, Munson, J., & King, B. (2009, May). *Patterns of Psychotropic Medication Use in Children with Autism Spectrum Disorders*. Presented at the International Meeting for Autism Research, Chicago, IL.
- Estes, A.** (2012, February). *Longitudinal outcomes in early autism intervention*. Presentation at the Psychiatric Research Society, Park City, UT.
- Estes, A.**, and the IBIS network (2012, February). *Prospective characterization of behavior in infants at high-risk for autism: findings from a multi-site imaging study*. Presentation at the Psychiatric Research Society, Park City, UT.
- Estes, A.**, Paterson, S., Gu, H., Zwaigenbaum, L., & Piven J. (2011, May). *Prospective characterization of behavior in high-risk infant sibs: preliminary data at 6 and 12 months of age*. Presentation as part of a scientific panel "Infants at high-risk for Autism: Findings from the Infant Brain Imaging Study (IBIS)" at the International Meeting for Autism Research, San Diego, CA.
- Estes, A.**, Tsui, L., Munson, J., Antovich, D., King, B., & Dawson, G. (2011, May). *Cortisol levels in adolescents with ASD and typical development*. Poster presented at the International Meeting for Autism Research, San Diego, CA.
- Estes, A.** (2011). *Cortisol levels in adolescents with ASD and typical development*. Paper presented at the Psychiatric Research Society, Park City, UT.
- Estes, A.** (2010). *Development in infants at high-risk for autism: preliminary findings from a longitudinal behavioral and neuroimaging study*. Presentation at the Psychiatric Research Society, Park City, UT.
- Estes, A.**, Alvarez, S., Dupont, E., Burner, K., Kelly, J., Dawson, G., Munson, J., King, B., & Webb, S. (2010, May). *Stress in parents of 6-month-old infants with older siblings with autism spectrum disorders*. Poster presented at the International Meeting for Autism Research, Philadelphia, PA.
- Estes, A.**, & Cauce, A.M. (1995). *The work/family interface: Maternal working environments and adolescent well-being in African American families*. Poster presented at convention of the Association for the Advancement of Behavior Therapy, Washington D.C.

- Estes, A., & Dager, S.** (2007, February). *Basal ganglia morphometry and repetitive behavior in young children with autism*. Presented at the Psychiatric Research Society meeting, Park City, Utah.
- Estes, A., & Dager, S.** (2008, February). *Basal ganglia and repetitive behavior changes in young children with autism*. Presented at the Psychiatric Research Society meeting, Park City, Utah.
- Estes, A., & Dager, S.** (2008, May). *Repetitive behavior, basal ganglia and thalamic changes in 3 and 6 year old children with autism*. Presented at the International Meeting for Autism Research. London, England.
- Estes, A., Dawson, G., Munson, J., Varley, J., Brigham, R., Sterling, L., & Elder, L.** (2007, April). *Further validation of a quantitative scale for assessing broader autism phenotype*. Poster presented at the Society for Research on Child Development, Boston, Massachusetts.
- Estes, A., Koehler, E., & Dawson, G.** (2006, May). *Stress in parents of preschool-aged children with autism, developmental delay, and typical development*. Presented at the annual International Meeting for Autism Research, Montreal, Quebec.
- Estes, A., McMahon, R.J., Mason, C., & Conduct Problems Prevention Research Group (CPPRG)** (1994). *Psychometric properties of the coder impressions inventory*. Poster presented at convention of the Association for the Advancement of Behavior Therapy, San Diego, CA.
- Estes, A., Munson, J., Clary, L., Abbott, R., & Dawson, G.** (2005, April). *Presence of a broader phenotype of autism in siblings from multiplex autism families*. Poster presented at the biennial meeting of the Society for Research on Child Development, Atlanta, GA.
- Greenson, J., **Estes, A., Munson, J., Guralnick, M., Tsui, L., Dawson, G.** (2011). Peer competence in preschool-aged children with autism spectrum disorders. Poster presented at the Society for Research on Child Development, Montreal, CA.
- Kaupar, S., Souders, M., Paterson, S., and the IBIS network. *Sleep behaviors in infants at high and low risk for developing autism spectrum disorders (2012, May)*. Presentation at the International Meeting for Autism Research, Toronto, Canada.
- Paterson, S., **Estes, A., Hazlett, H., Gu, H., Zwaigenbaum, L.** (2011). Cognitive functioning in 6-month-old infants at risk for autism spectrum disorders. Presented at the Society for Research on Child Development, Montreal, CA.
- Rivera, V., **Estes, A., Munson, J., & Cali, P.** (2009, May). *Problem Behavior, Social Functioning and Academic Achievement in School-Aged Children with An Autism Spectrum Disorder*. Presented at the International Meeting for Autism Research, Chicago, IL.
- St. John, T., **Estes, A.,** and the IBIS network. *Piaget's A-not-B task in infants at high and low risk for ASD (2012, May)*. Presentation at the International Meeting for Autism Research, Toronto, Canada.
- St. John, T., **Estes, A., & Munson, J.** (2009, May). *Marital Adjustment, Social Support, and Parenting-Related Stress in Mothers and Fathers of Preschool-Aged Children with Autism*. Presented at the International Meeting for Autism Research, Chicago, IL.
- Steiman, M., **Estes, A., & Dawson, G.** (2006, May). *The enhanced social interaction play scale (NSIPS): Measuring social abilities in children with autism spectrum disorders*. Poster presented at the International Meeting for Autism Research, Montreal, Quebec.
- Sterling, L., Dawson, G., Greenson, J., & **Estes, A.** (2006, May). *Factors associated with presence of depressive symptoms in adults with autism spectrum disorder*. Poster presented at the International Meeting for Autism Research, Montreal, Quebec.
- Sterling, L., **Estes, A., Dawson, G., & Munson, J.** (2007, April). *The role of cognitive and adaptive functioning in the development of associated conditions in autism*. Poster presented at the Society for Research on Child Development, Boston, Massachusetts.
- Sterling, L., **Estes, A., Murias, M., Webb, S., Panagiotides, H., Munson, J., King, B., & Dawson, G.** (2011, May). *Physiological characteristics associated with anxiety in adolescents with autism spectrum disorders*. Poster presented at the International Meeting for Autism Research, San Diego, CA.
- Toth, K., Dawson, G., Munson, J., **Estes, A., & Abbott, R.** (2003, April). *Role of joint attention, social interaction and play in language and social growth in young children with autism*. Paper presented at the Society for Research on Child Development.

Venema, K., Jones, E.J.H., Glead, A., Elsabbagh, M., Johnson, M., **Estes, A.**, Dawson, G., & Webb, S.J. (2009, May). *Assessing visual attention in 6-month-old infants with increased ASD-risk: The question of reliability*. Presented at the International Meeting for Autism Research, Chicago, IL.

NATIONAL AND INTERNATIONAL INVITATIONAL LECTURES

ACE Infant Brain Imaging Study Network Behavioral Training Workshop (2012, 2008, 2007). Hosted two-day meetings and trained investigators in the use of behavioral assessments for 3, 6, 9, 12, 15, 24 and 36-month-old infants. UW Autism Center, Seattle, WA.

Prospective characterization of behavior in infants at high-risk for autism: findings from a multi-site imaging study (2012). Presentation at the European Winter Conference on Brain Research, Villars-sur-Ollon, Switzerland.

Early intervention in ASD: Early Start Denver Model and parent-mediated intervention (2011). Exploring Autism Research Collaboration between Japan and the United States Joint Academic Conference on Autism Spectrum Disorders, Tokyo, Japan.

Innovations in early intervention for autism spectrum disorders: From genes to brain to behavior (2009). Grand Rounds, Psychiatry Department, University of Vermont, Burlington, VT.

Broader phenotype of autism symptom scale (BPASS; 2008). Workshop presented over two days at University of California Los Angeles and Autism Genetic Resource Exchange on using the BPASS in genetic research. Los Angeles, CA.

Broader phenotype of autism symptom scale (BPASS; 2007). Workshop presented over two days at Massachusetts General Hospital to the Autism Consortium on using the BPASS in genetic research. Boston, MA.

Broader phenotype of autism symptom scale (BPASS; 2007). Preconference workshop presented at International Meeting for Autism Research regarding use of BPASS in research, UW Autism Center, Seattle, WA.

Chair of Symposium on Autism Phenotypes (2007). International Meeting for Autism Research, Seattle, WA.

Genetic risk for autism: Clinical implications (2006). Presented at the Indo-US Conference on Autism, New Delhi, India.

Broader phenotype of autism symptom scale (BPASS: 2004). Workshop presented over two days to invited NIH research scientists from the Collaborative Programs of Excellence in Autism network regarding use of BPASS in research, UW Autism Center, Seattle, WA

Autism spectrum disorders (2001). Workshop presented over two days on neurobiology, assessment, diagnosis, and treatment of autism spectrum disorders. Alaska Autism Institute, Anchorage, AK.

SELECTED LOCAL and REGIONAL INVITATIONAL LECTURES

Prospective characterization of behavior in infants at high-risk for autism: findings from a multi-site imaging study (2012). Presentation for LEND training, University of Washington Autism Center, Seattle, WA.

Prospective characterization of behavior in infants at high-risk for autism: findings from a multi-site imaging study (2012). Presentation for rounds at Seattle Children's Autism Center, Seattle, WA.

Early autism identification and intervention (2011). Washington State Birth to Three Autism Summit; Spokane, WA.

Early autism intervention: Connecting science and practice (2010). Seattle Pacific University. Seattle, WA.

Innovations in Early Autism Intervention: From Genes, to the Brain, to Behavior (2010). Autism Center, University of Washington. Seattle, WA.

Innovations in early autism intervention: genes to brain to behavior (2010). Seminars in Hearing and Communication Sciences, University of Washington, Seattle, WA.

Research on early identification and intervention for autism spectrum disorders (2009). UW Autism Center, Summer Intensive, University of Washington, Seattle, WA.

Early intervention for autism spectrum disorders: Current research at the UW Autism Center (2009). UCEDD/LEND Core Seminar, MCH Leadership Seminar, Center on Human Development and Disability, University of Washington, Seattle, WA.

Early identification of autism spectrum disorders (2008). UCEDD/LEND Core Seminar, MCH Leadership Seminar, Center on Human Development and Disability, University of Washington, Seattle, WA.

Diagnosis and assessment of autism spectrum disorders (2007). Training session presented to psychiatry residents at Children's Hospital, Department of Psychiatry and Behavioral Science, Seattle, WA.

Clinical manifestations of autism spectrum disorders (2006). Presented at the Congress of Epidemiology, Seattle, WA.

Diagnosis and assessment of autism spectrum disorders (2004, 2005). Training session presented to psychiatry residents and staff, Lake City Way Outpatient Psychiatry Clinic, Department of Psychiatry and Behavioral Science, Seattle, WA.

High functioning autism and Asperger's disorder (2004). Presented at the annual Washington State Psychological Association fall conference, Seattle, WA.

Autism in adolescents (2003). University of Washington Summer Institute on Brain and Learning.

Autism spectrum disorders (2001). University of Washington Summer Institute on Brain and Learning.

Observational methods, observer training, and reliability (1996). Presented at the Meta-Emotions Research Lab, University of Washington, Seattle, WA.

Observational methods and observer training (1995). Presented at the Parenting Clinic research group University of Washington, Seattle, WA.

V I T A

Richard C. Folsom

PERSONAL INFORMATION

Address: Department of Speech and Hearing Sciences (Box 354875)
1417 N.E. 42nd Street
University of Washington
Seattle, Washington 98195
(work) (206) 685-7482
rfolsom@u.washington.edu

4339 N.E. 56th
Seattle, Washington 98105
(home) (206) 525-4819

PRESENT POSITION

Professor and Chair
Department of Speech and Hearing Sciences, University of Washington

Adjunct Professor:
Department of Pediatrics, University of Washington

Research and Clinical Affiliate:
Head, Audiology, Center on Human Development and Disability
Member, Board of Directors, Bloedel Hearing Research Center

EDUCATIONAL BACKGROUND

<u>Institution</u>	<u>Degree</u>	<u>Dates</u>
Central Washington State College	B.A.	1964-1967
Portland State University	M.S.	1968-1970
University of Washington	Ph.D.	1975-1979

EMPLOYMENT RECORD

<u>Institution</u>	<u>Position</u>	<u>Dates</u>
University of Washington	Lecturer	1977-1980
University of Washington	Assistant Professor	1980-1987
University of Washington	Associate Professor	1987-1994
University of Washington	Professor	1994-
University of Washington	Adjunct Professor Pediatrics	2001-
University of Washington	Acting Chair / Chair	2007-

ACADEMIC AND SHORT COURSES TAUGHT

Introduction to Hearing Science	Pediatric Audiology
Survey of Hearing Impairment	Physiologic Assessment of Aud Function
Aural Rehabilitation	Auditory Assess - Multi-Handicapped Children
Basic Audiometry	Advanced Pract: Pediatrics
Identification Audiometry in the Schools	Advanced Pract: Aud Evoked Potentials
Universal Newborn Hearing Screening	Seminar: Cochlear Implants
Seminar: Auditory Development	Seminar: Auditory Evoked Potentials
Hearing Disorders	Immittance Testing

Evidence of Teaching Effectiveness/Results of Student Opinion Survey; Mean Rating Over Past Ten Years (5 point scale): 4.75

GRADUATE STUDENTS SUPERVISED (CHAIR OF THESIS COMMITTEE)

<u>Name</u>	<u>Thesis Topic</u>	<u>Degree</u>	<u>Date</u>
Judith Widen	"The effects of intensity on the auditory brainstem response in Down's syndrome."	Ph.D.	1982
Robert Owsley	"The effects of contralateral sound stimulation on the N1 cochlear potential in humans."	M.S.	1984
Carol Aurich	"Stimulus rise-time effects on the auditory brainstem response for adults and infants."	M.S.	1984
Lisa Rickard	"Auditory brainstem responses from infants and adults to extended high-frequency tone pips."	M.S.	1987
Michael Wynne	"Auditory brainstem responses from human adults and infants: Cochlear traveling-wave time delay and velocity estimates."	Ph.D.	1988
Janet Davis	"Televised reinforcers in visual reinforcement audiometry with 30-month-old children."	M.S.	1990
Mark Orlando	"Polarity reversal with single-cycle, frequency-limited stimuli on ABRs from adults and infants."	Ph.D.	1991

Susan Smith	"Visual reinforcement audiometry response strength in infants and children prenatally exposed to cocaine."	M.S.	1992
Elizabeth Roth	"Habituation rates in infants using televised and non-televised visual reinforcement audiometry."	M.S.	1992
Ellen Levi	"Coherence analysis of amplitude-modulation following responses (AMFRs): Effects of modulation rate, carrier frequency, age, and state."	Ph.D.	1992
Caroline Abdala	"Frequency selectivity of infant and adult auditory brainstem responses recorded in notched-noise."	Ph.D.	1993
Connie Syapin	"Forward masking of the ABR in hearing-impaired subjects."	Ph.D.	1993
Dee Ann Wilson	"Time vs spectral averaging of spontaneous otoacoustic emissions."	M.S.	1995
Kelli Lahargoue	"Amplitude growth functions of transient evoked otoacoustic emissions with some comments on responses from infants with Down syndrome."	M.S.	1995
Alison Miller	"Amplitude growth functions of distortion product evoked otoacoustic emissions with some comments on responses from infants with Down syndrome."	M.S.	1995
Erika Zettner	"Transient otoacoustic suppression tuning curves as a function of psychophysical thresholds"	Ph.D.	1999
Marilyn Dille	"Effects of level and attention on the P300 response"	Ph.D.	1999
Megan McFarland	"The effect of click rate on auditory brainstem response latency and psychophysical threshold"	M.S.	2002
Jessica Day	"Probe-tone effects on acoustic reflex thresholds"	Au.D.	2005
Chris Sanford	"Energy reflectance and transmittance"	Ph.D.	2006

tympanometry in infants”

Rebecca Lewis “*Atoh1* promotes supporting cells to Ph.D.
divide or transdifferentiate into hair cells
during auditory hair cell regeneration
in post-hatch chickens”

COMMITTEES AND OTHER SERVICE

Departmental

Ad Hoc Committee: Basic Science Preparation for the Doctorate, 1977 - 1978
Laboratory Coordinating Committee, 1979 - 1980
Chair, Fall Graduate Student Orientation Committee, 1979 - 1983
MSPA Degree Committee, 1983
Undergraduate Comm. Disorders Specialist Selection Committee, 1981 - 1988
Chair, Continuing Education Committee, 1988
Head, Audiology Interest Area, 1988 - 1991
Executive Committee, Department of Speech and Hearing Sciences, 1988 - 1991
Chair, Research Committee, Child Dev. and Mental Retardation Cntr, 1988 - 1992
Executive Committee, Bloedel Hearing Research Center, 1989 - 1991
Affiliate Liaison Committee, Bloedel Hearing Research Center, 1990 - 1992
Chair, Search Committee for Position in Audiology, 1992 - 1993
Steering Committee for Revising the Curriculum, 1992 - 1993
Executive Committee, Department of Sp. and Hearing Sciences, 1992 - 2003
Head, Audiology Interest Area, 1992 - 2003
Chair, Search Committee for Position in Audiology, 1995 - 1996
Chair, Assistant Professor Review Committee: Pam Souza, 1996 - present
Chair, Faculty Deployment Committee, 1995 - present
Affiliate Liaison Committee, Bloedel Hearing Research Center, 1997 - present
Chair, Search Committee for Position in Audiology, 1997 - 1998
Chair, Assistant Professor Review Committee: Kelly Tremblay, 1998 - 2003
Chair, Space Committee, 1999 - 2001
Search for position in Speech/Language, 1999-2000
Chair, ad hoc committee to develop Au.D. 2000- 2004
Chair, Search Committee for Position in Audiology, 2003-2005
Head: Executive committee 2007 -

Professional

Fellow: American Speech-Language-Hearing Association, Certificate of Clinical Competence,
Audiology, Awarded 1976. Fellowship: 1997
Member: Acoustical Society of America.
Member: Association for Research in Otolaryngology
Member American Auditory Society
Member: Washington Society of Audiology
American Speech-Language and Hearing Association Committee: Audiometric Evaluation
Working Group on Auditory Evoked Potential Measurements, 1982-1988.

Co-Chair, Program Committee Joint Washington-Oregon Speech and Hearing Association Annual Convention, Portland, Oregon, 1983.

Editorial Consultant: Language, Speech, and Hearing Services in Schools

Ad Hoc Reviewer for: Science

Journal of the Acoustical Society of America

Journal of Speech and Hearing Research

American Journal of Mental Deficiency

Trisomy 21

Ear and Hearing

American Journal of Audiology

Ad Hoc Grant Reviewer: National Inst. Deafness and Other Comm. Dis. (NIDCD)

Centers for Disease Control

Association of University Centers on Disability

President, Washington Society of Audiology, 1988-1989

Program Committee, Am. Acad. of Aud. Ann Convention, Phoenix, AZ, 1993.

Member: Joint Committee on Infant Hearing, 1996-1999

RESEARCH PROJECTS, GRANTS AND/OR CONTRACTS

Audiologist: Neonatal Intensive Care Unit Followup Project (Pediatric Pulmonary - S.C.O.R. - Hyaline Membrane Disease, Grant No. HL19187-03). 1977-1985

Co-Investigator: Auditory Function of Down's Syndrome Infants and Young Children, W.R. Wilson, Principal Investigator (The National Foundation - March of Dimes, Grant No. 6-241; Award: \$17,000). 1978-1980

Principal Investigator: Computerization of Evoked Potential Laboratory (Biomedical Research Grant - Public Health Service; Award: \$17,500). 1979

Principal Investigator: Auditory Brainstem Responses to Tonal Stimuli in Down's Syndrome Infants (Washington Association for Retarded Citizens - Trust Fund; Award: \$7,056). 1980-1981

Consultant: Early Identification and Appropriate Placement of Children Who are Deaf/Blind, M. Thompson, Principal Investigator (Special Education Program, Department of Education, Grant No. 84.086G). 1983-1985

Co-Investigator: Neural Bases of Categorical Perception, C.A. Mateer, Principal Investigator (National Institute of Neurological and Communicative Disorders and Stroke, Grant No. R01NS21807; Award: \$79,737). 1986-1988

Principal Investigator: Auditory Frequency Resolution in Infants (The Deafness Research Foundation; Award: \$44,985). 1/86 to 12/88

Principal Investigator: Auditory Localization in Down Syndrome Infants (Washington Association for Retarded Citizens - Trust Fund; Award: \$7,906). 1986-1987

Principal Investigator: Auditory Sensitivity and Frequency Resolution (National Institute of Deafness and other Communication Disorders (NIH-NIDCD); Award: \$155,243 direct per year for 5 years; part of

Program Project on Hearing Development, Grant No. P01-DC00520; Edwin Rubel, Project Investigator, 1988-1993.

Principal Investigator: Narrow Band Analysis of Auditory Brainstem Responses from Infants with Down Syndrome (Washington Association for Retarded Citizens - Trust Fund; Award: \$7,736). 1990-1991

Principal Investigator: The Use of Televised Reinforcers in Visual Reinforcement Audiometry for Infants with Down Syndrome, (Washington Association for Retarded Citizens Research Trust Fund; Award: \$8,004). 1991-1992

Principal Investigator (P.I. at UW site): Identification of Neonatal Hearing Impairment; Multi-Center Project; National Institute of Deafness and other Communication Disorders (NIH-NIDCD); Award: \$133,000/year; 1993-1999.

Principal Investigator: Auditory Sensitivity and Frequency Resolution; National Institute of Deafness and other Communication Disorders (NIH-NIDCD); Award: \$110,385 direct per year; Part of Program Project Grant on Hearing Development, Grant No. P01-DC00520; Edwin Rubel, Project Investigator, 1993-1999.

Principal Investigator: Cochlear development in Down Syndrome (Washington Association for Retarded Citizens - Trust Fund; Award: \$14,834). 1999-2000

Principal Investigator: Monitoring of risk factors for children at risk for late-onset hearing loss; Association of University Centers on Disability and Centers for Disease Control; Award: \$224,998 direct per year, 2004-2008.

Principal Investigator: Monitoring of risk factors for children at risk for late-onset hearing loss; Association of University Centers on Disability and Centers for Disease Control; Award: \$224,998 direct per year, 2004-2008.

Principal Investigator: Pediatric Audiology Trainee Emphasis in the LEND Program; Association of University Centers on Disabilities, National Center on Birth Defects and Developmental Disabilities (NCBDDD) and the Centers for Disease Control and Prevention (CDC); Award: \$195,000 direct, 2009-2013.

INVITED PRESENTATIONS

Principal Investigator: "Cochlear development in Down syndrome"; Arc of Washington Research trust Fund: award \$14,843 direct, 1999-2000.

Principal Investigator: "Tympanometry and Reflectance in Infants and Children with Down Syndrome"; National Organization for Hearing Research Foundation (NOHR): Award: \$10,000 direct; 2000-20002.

Principal Investigator: "Physiologic and Psychoacoustic Measures of Hearing Development in Down Syndrome"; Deafness Research Foundation (DRF): Award: \$19,966 direct; 2000-2002.

Folsom, R.C. "The role of clinical audiology in research and demonstration project in deaf adult rehabilitation services." Invited paper presented to the Washington Speech and Hearing Association Annual Convention, Olympia, Washington, 1973.

- Folsom, R.C. "The role of a clinical audiologist in a community-based speech and hearing center." Invited presentation at Western Washington State College, Bellingham, Washington, 1975.
- Moore, J.M. and Folsom, R.C. "An approach to the audiologic assessment of deaf/blind children." Invited workshop presented to the Washington Speech and Hearing Association Annual Convention, Spokane, Washington, 1976.
- Moore, J.M. and Folsom, R.C. "The audiologic assessment of multiply-handicapped children." Invited workshop presented to Yakima Valley School, Selah, Washington, 1979.
- Folsom, R.C. and Moore, J.M. "Hearing testing of institutionalized deaf/blind children." Invited workshop presented to the Washington State School for the Blind, Vancouver, Washington, 1979.
- Folsom, R.C. "Assessment of hearing levels in infants using brainstem evoked response." Invited presentation, The Developmentally Delayed Child, University of Washington School of Medicine, Seattle, Washington, 1979.
- Wilson, W.R., Folsom, R.C. and Widen, J.E. "Hearing impairment in Down's syndrome children." Invited presentation, the Elks 1982 International Symposium: The Multiply Handicapped Hearing Impaired Child, Edmonton, Alberta, Canada, 1982.
- Folsom, R.C. "Hearing assessment of neonatal intensive care unit graduates." Invited presentation, High Risk Infants of the 1980s, University of Washington, Seattle, Washington, 1983
- Folsom, R.C. and Moore, J.M. "An approach to the audiologic assessment of multi-handicapped deaf-blind children." Invited presentation, the Fifth Canadian Interdisciplinary Conference on the Visually Impaired Child, Vancouver, British Columbia, Canada, 1984.
- Folsom, R.C. "Diagnostic issues in pediatric audiology." Invited presentation, American Speech-Language-Hearing Association Annual Convention, Detroit, Michigan, 1986.
- Folsom, R.C. "Frequency dependent differences in auditory brainstem responses from adults and infants." Invited presentation, Stanford University, Palo Alto, California, January 12, 1987.
- Folsom, R.C. "Auditory brainstem responses from adults and infants - masking studies." Invited presentation, Northwestern University, Evanston, Illinois, April 13, 1987.
- Folsom, R.C. "Diagnostic case study in pediatric audiology." Invited presentation, American Speech-Language-Hearing Association Annual Convention, New Orleans, Louisiana, 1987.
- Folsom, R.C. "The short-latency auditory evoked potential: Pediatrics." Invited presentation, American Speech-Language-Hearing Association Annual Convention, New Orleans, Louisiana, 1987.
- Folsom, R.C. "The short-latency auditory-evoked potential." Invited presentation, Madigan Army Medical Center 1991 Audiology Seminar, October 1991.
- Folsom, R.C. "Infant frequency resolution: Results of studies using the auditory brainstem response." Invited presentation, Minnesota Speech-Language-Hearing Association, April 1991.

- Folsom, R.C. "Behavioral hearing assessment of infants age 6 to 30 months." Invited presentation, Minnesota Speech-Language-Hearing Association, April 1991.
- Folsom, R.C. "Frequency and temporal resolution in infants: Results of studies using the auditory brainstem response." Invited presentation, University of Wisconsin, Madison, Wisconsin, March 1992.
- Folsom, R.C. "Is auditory brainstem evaluation enough?" Invited presentation, American Academy of Audiology Annual Convention, Nashville, Tennessee, April 1992.
- Folsom, R.C. "The auditory brainstem response: Basic aspects." Invited presentation to the Consensus Development Conference on Early Identification of Hearing Impairment in Infants and Young Children, National Institute of Deafness and other Communication Disorders and the National Institutes of Health (NIH), Bethesda, Maryland, March 1993.
- Folsom, R.C. "Bridging the lab-clinic gap; application of basic ABR studies in the clinic." Invited presentation, Boys Town National Research Hospital, Omaha, Nebraska, 1993.
- Folsom, R.C. "Universal hearing screening - ABR applications." Invited presentation, American Academy of Audiology Annual Meeting, Richmond, Virginia, 1994.
- Folsom, R.C. "Identification of hearing impairment during the neonatal period: Program strategies and choices." Invited presentation, Vancouver Health Department and B.C. Children's Hospital, Vancouver, British Columbia, 1995.
- Norton, S.J., Folsom, R.C., Gorga, M.P., Sininger, Y.S., Vohr, B.R. and Widen, J.E. "Research in neonatal hearing screening." Invited mini-seminar presented to the American Academy of Audiology, Salt Lake City, Utah, April, 1996.
- Folsom, R.C. "Frequency Specific ABR." Invited presentation to the Fourth International Symposium on Childhood Deafness, Kiawah Island, South Carolina, October, 1996.
- Norton, S.J., Folsom, R.C., Gorga, M.P., Sininger, Y.S., Vohr, B.R. and Widen, J.E. "Neonatal hearing screening." Invited mini-seminar presented to the American Speech-Language-Hearing Association, Seattle, Washington, November, 1996.
- Norton, S.J., Folsom, R.C., Gorga, M.P., Sininger, Y.S., Vohr, B.R. and Widen, J.E. "Research issues in neonatal hearing screening." Invited session presented to the American Academy of Audiology, Ft. Lauderdale, Florida, April, 1997.
- Folsom, R.C. "Auditory neuropathy in newborns." Invited presentation to the NIH Conference on Auditory Neuropathy, Lake Arrowhead, California, March, 1998.
- Ferraro, J., Folsom, R.C., Bentler, R. "Basic science training in Au.D. programs." Invited presentation to the American Speech-Language-Hearing Association, San Diego, CA, November, 2005.
- Ferraro, J., Folsom, R.C., Bentler, R. "Basic science training in Au.D. programs." Invited presentation to the American Academy of Audiology, Denver, CO, April, 2007.

- Folsom, R.C. "Models of Au.D./Ph.D. education in audiology." Council on Academic Programs in Communication Sciences and Disorders, Austin, TX April 2010.
- Folsom, R.C. "Administration of speech and hearing programs." Council on Academic Programs in Communication Sciences and Disorders, Newport Beach, CA. April 2012.

CONTRIBUTED PRESENTATIONS

- Decker, T.N., Folsom, R.C. and Shapley, J.D. "Unlikely bone conduction: Case presentations." Presented to the Washington Speech and Hearing Association Annual Convention, Richland, Washington, 1972.
- Folsom, R.C. "Functional hearing loss in school-aged children." Presented to the Joint Oregon-Washington Speech and Hearing Associations Convention, Portland, Oregon, 1975.
- Folsom, R., Weber, B. and Thompson, G. "Auditory brainstem responses in children with early middle-ear disease." Presented to the American Speech-Language-Hearing Association Annual Convention, Detroit, Michigan, 1980.
- Moore, J.M. and Folsom, R. "The conditioning of institutionalized deaf/blind and multihandicapped for audiologic assessment." Paper presented to the Association for the Severely Handicapped (T.A.S.H.) annual meeting, Los Angeles, California, 1980.
- Folsom, R.C., Widen, J.W. and Wilson, W.R. "Auditory brainstem responses in Down's syndrome infants." Presented to the American Speech-Language-Hearing Association Annual Convention, Los Angeles, California, 1981.
- Folsom, R.C. "Frequency specificity of click and tone generated auditory brainstem responses." Presented to the American Speech-Language-Hearing Association Annual Convention, Toronto, Ontario, Canada, 1982.
- Folsom, R.C. "Frequency specificity of auditory brainstem responses in three month infants." Presented to the American Speech-Language-Hearing Association Annual Convention, Toronto, Ontario, Canada, 1982.
- Folsom, R.C. "Auditory brainstem responses from infants using notched-noise masking." Presented to the American Speech-Language-Hearing Association Annual Convention, Cincinnati, Ohio, 1983.
- Folsom, R.C. and Wynne, M.K. "ABR wave V tuning curves in adults and infants." Presented to the American Speech-Language-Hearing Association Annual Convention, San Francisco, California, 1984.
- Folsom, R.C. and Aurich, C.D. "Stimulus rise-time effects on ABRs from infants and adults." Presented to the American Speech-Language-Hearing Association Annual Convention, Washington, D.C., 1985.
- Wynne, M.K., Folsom, R.C. and Levi, E.C. "ABR traveling wave time delay estimates in infants and adults." Presented to the American Speech-Language-Hearing Association Annual Convention, Detroit, Michigan, 1986.

- Rickard, L.K. and Folsom, R.C. "ABRs from infants and adults to extended high-frequency stimuli." Presented to the American Speech-Language-Hearing Association Convention, Boston, Massachusetts, 1988.
- Olsho, L.W., Feeney, M.P. and Folsom, R.C. "Behavioral thresholds for tone-pips in 3- and 6-month-old infants and adults." Presented to the Acoustical Society of America Meeting, St. Louis, Missouri, 1989.
- Levi, E.C., Folsom, R.C. and Dobie, R.A. "Coherence analysis of amplitude-modulation following responses (AMFRs): Effects of modulation rate, carrier frequency, age, and state." Association for Research in Otolaryngology Mid-Winter Meeting, St. Petersburg Beach, Florida, 1990.
- Moore, J.M., Thompson, G. and Folsom, R.C. "Auditory responsiveness of premature infants utilizing visual reinforcement audiometry." Presented to the American Speech-Language-Hearing Association, Seattle, Washington, November 1990.
- Folsom, R.C., Syapin, C.L. and Huff, S.J. "Adult and infant ABRs to temporal gaps in broadband noise." Presented to the American Speech-Language-Hearing Association, Seattle, Washington, November 1990.
- Orlando, M.S. and Folsom, R.C. "Polarity reversal with frequency-limited stimuli in adults and infants." Presented to the American Speech-Language-Hearing Association, Seattle, Washington, November 1990.
- Werner, L.A., Rickard, L.K. and Folsom, R.C. "Correlation between frequency-specific ABR and behavioral thresholds in 3-month-infants." Presented to the Acoustical Society of America Annual Meeting, San Diego, California, November 1990.
- Folsom, R.C., Orlando, M.S. and Harney, M.L. "Human auditory brainstem responses: Effects of low-frequency masking." Presented to the Association for Research in Otolaryngology Mid-Winter Meeting, St. Petersburg Beach, Florida, February 1991.
- Folsom, R.C., Syapin, C.L. and Huff, S.J. "Human auditory brainstem responses to temporal gaps in broadband noise." Presented to the Association for Research in Otolaryngology Mid-Winter Meeting, St. Petersburg Beach, Florida, February 1992.
- Werner, L.A., Mancl, L.R. and Folsom, R.C. "The relationship between behavioral and auditory brainstem response thresholds in infants and adults." Presented to the Acoustical Society of America Annual Meeting, Salt Lake City, Utah, May 1992.
- Abdala, C.A. and Folsom, R.C. "Narrow-band analysis of click-evoked, auditory brainstem responses in human adults and infants." Presented to the Association for Research in Otolaryngology Mid-Winter Meeting, St. Petersburg Beach, Florida, February 1993.
- Werner, L.A., Mancl, L.R., Folsom, R.C. and Syapin, C.L. "Behavioral and auditory brainstem response gap detection thresholds." Presented to the Association for Research in Otolaryngology Mid-Winter Meeting, St. Petersburg Beach, Florida, February 1993.
- Syapin, C.L. and Folsom, R.C. "Forward masking of the ABR in hearing impaired subjects." Presented to the American Speech-Language-Hearing Association, Anaheim, California, November, 1993.

- Norton, S.J., Cone-Wesson, B., Folsom, R.C., Gorga, M.P. Sininger, Y.S., Vohr, B.R. and Widen, J.E. "Unresolved issues in neonatal hearing screening." Mini seminar presented to the American Speech-Language-Hearing Association, Anaheim, California, November, 1993.
- Folsom, R.C. and Burns, E.M. "Transient-evoked otoacoustic emission and auditory brainstem response suppression tuning curves in human adults and infants." Presented to the Association for Research in Otolaryngology, St. Petersburg Beach, Florida, February, 1994.
- Folsom, R.C., Burns, E.M., Zettner, E.M. and Morrison, R.B. "Transient-evoked otoacoustic emission suppression tuning curves in human adults and infants." Presented to the Acoustical Society of America Annual Meeting, Cambridge, Massachusetts, June, 1994.
- Folsom, R.C., Burns, E.M., Morrison, R.B. and Zettner, E.M. "Comparison of peripheral vs central tuning in human adults and infants." Presented to the Association for Research in Otolaryngology, St. Petersburg Beach, Florida, February, 1995.
- Zettner, E.M., Folsom, R.C. and Burns, E.M. "DPOAE suppression tuning curves during salicylate ototoxicity in humans." Presented to the Association for Research in Otolaryngology, St. Petersburg Beach, Florida, February, 1996.
- Werner, L.A., Folsom, R.C. Keefe, D.H., Levi, E.C., and Dille, M.D. "Conductive cochlear and neural contributors to human absolute sensitivity to tones." Presented to the Association for Research in Otolaryngology, St. Petersburg Beach, Florida, February, 1998.
- Tooley-Young, C., Folsom, R.C. and Werner, L.A. "Comparison of physiologic and psychoacoustic auditory filter shapes." Presented to the Association for Research in Otolaryngology, St. Petersburg Beach, Florida, February, 1999.
- Zettner, E.M. and Folsom, R.C. "Transient otoacoustic suppression tuning curves as a function of psychophysical thresholds." Presented to the Association for Research in Otolaryngology, St. Petersburg Beach, Florida, February, 1999.
- Sanford, C. and Folsom, R.C. "Tone burst ABR wave V amplitude and subjective loudness growth", paper presented to the American Auditory Society, Scottsdale AZ, 2003.
- Tooley-Young, C. and Folsom, R.C. "Infant auditory filter widths obtained using auditory brainstem response", paper presented to the American Auditory Society, Scottsdale AZ, 2004.
- Folsom, R.C., and Norton, S.J. "Monitoring Risk Factors for Late-Onset Hearing Loss Among Children", paper presented to the American Auditory Society, Scottsdale AZ, 2005.
- Folsom, R.C., and Norton, S.J. "Monitoring Risk Factors for Late-Onset Hearing Loss Among Children, I", paper presented to the American Auditory Society, Scottsdale AZ, 2006.
- Folsom, R.C., and Norton, S.J. "Monitoring Risk Factors for Late-Onset Hearing Loss Among Children, II", paper presented to the American Auditory Society, Scottsdale AZ, 2007.
- Norton, S.J., Folsom, R.C., Ehrmann, E "Monitoring Risk Factors for Late-Onset Hearing Loss", paper presented to the Early Hearing Detection & Intervention (EHDI) Conference, Salt Lake City UT, 2007.

- Ferraro, J., Folsom, R.C., Bentler, R. "Basic science training in Au.D. programs." Invited presentation to the American Academy of Audiology, Denver, CO, April, 2007.
- Folsom, R.C., Norton, S.J., Ehrmann, E "Late-Onset and Progressive Hearing Loss", paper presented to the Early Hearing Detection & Intervention (EHDI) Conference, New Orleans LA, 2008.
- Folsom, R.C., Norton, S.J., Ehrmann, E "Monitoring Children for Late-Onset and Progressive Hearing Loss", paper presented to the American Auditory Society, Scottsdale AZ, 2008.
- Folsom, R.C., Norton, S.J., Ehrmann, E "Monitoring Risk Factors for Late-Onset Hearing Loss", paper presented to the Newborn Hearing Screening NHS08 meeting in Cernobbio (Como Lake) , Italy, 2008.
- Folsom, R.C., Norton, S.J., Ehrmann, E "Late-Onset and Progressive Hearing Loss", paper presented to the American Auditory Society, Scottsdale AZ, 2009.

PUBLICATIONS

- Weber, B.A. and Folsom, R.C. (1977) Brainstem wave V latencies to tone pip stimuli. Journal of American Audiology Society, 2, 182-184.
- Decker, T.N. and Folsom, R.C. (1978) A tactile method for increasing speechreading abilities: Two case studies. Audiology and Hearing Education, 4, 14-18.
- Thompson, G. and Folsom, R.C. (1981) Hearing assessment of 'at risk' infants: Current status of audiometry in young infants. Clinical Pediatrics, 20, 257-261.
- Folsom, R.C., Weber, B.A. and Thompson, G. (1983) Auditory brainstem responses in children with early recurrent middle ear disease.* Annals of Otolaryngology, Rhinology, Laryngology, 92, 249-253.
- *This article, in abstract form plus figures, was selected to appear in the "Progress en oto-rhinolaryngologie" series published by Editions Hippocrate Paris, 1984.
- *This article, in abstract form plus figures, was selected to appear in the journal Extracta Otorhinolaryngologica, Band 6, Heft 6, published by Acron Verlag, Berlin, 1984.
- Wilson, W.R., Folsom, R.C. and Widen, J.E. (1983) Hearing impairment in Down's syndrome children. Chapter 15 in The Multiply Handicapped Hearing Impaired Child, Mencher, G.T. and Gerber, S.E. (Eds.), Grune and Stratton, New York, 259-300.
- Folsom, R.C., Widen, J.E. and Wilson, W.R. (1983) Auditory brainstem responses in Down's syndrome infants. Archives of Otolaryngology, 109, 607-610.
- Folsom, R.C. (1984) Frequency specificity of human auditory brainstem responses as revealed by pure-tone masking profiles. Journal of the Acoustical Society of America, 75, 919-924.

- Thompson, G. and Folsom, R.C. (1984) A comparison of two conditioning procedures in the use of visual reinforcement audiometry (VRA). Journal of Speech and Hearing Disorders, 49, 241-245.
- Folsom, R.C. and Moore, J.M. (1984) An approach to the audiologic assessment of multi-handicapped deaf-blind children. Chapter 6 in Insight In Sight, Sykanda, A.M., et al. (Eds.), Canadian National Institute for the Blind, Vancouver, 43-57.
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- Thompson, G. and Folsom, R.C. (1985) Reinforced and nonreinforced head-turn responses of infants as a function of stimulus bandwidth. Ear and Hearing, 6, 125-129.
- Folsom, R.C. and Wynne, M.K. (1986) Auditory brainstem responses from human adults and infants: Restriction of response region by notched-noise masking. Journal of the Acoustical Society of America, 80, 1057-1064.
- Folsom, R.C. and Wynne, M.K. (1987) Auditory brainstem responses from human adults and infants: Wave V tuning curves. Journal of the Acoustical Society of America, 81, 412-417.
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- Folsom, R.C. and Owsley, R.M. (1987) N1 action potentials in humans: Influence of simultaneous contralateral stimulation. Acta Oto-Laryngologica, 103, 262-265.
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- Folsom, R.C. (1990) Identification of hearing loss in infants using the auditory brainstem response: Strategies and program choices. Seminars in Hearing, 4, 333-341.
- Moore, J.M., Thompson, G. and Folsom, R.C. (1992). Auditory responsiveness of premature infants utilizing visual reinforcement audiometry. Ear and Hearing, 13, 187-194.
- Folsom, R.C., Thompson, M. and Thompson, G. (1993). Audiologic assessment and management of young children." In F.C. Bennett (Ed.), The High Risk Infant. Andover, Inc.: N. Potomac, MD.
- Werner, L.A., Folsom, R.C. and Mancl., L.R. (1993). The relationship between auditory brainstem response and behavioral thresholds in infants and adults. Hearing Research, 68, 131-141.

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- Levi, E.C., Folsom, R.C. and Dobie, R.A. (1995). Coherence analysis of envelope following responses (EFRs) and frequency following responses (FFRs) in infants and adults. Hearing Research, 89, 21-27.
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- Werner, L.A., Mancl, L.R. and Folsom, R.C. (1996). Preliminary observations on the development of auditory sensitivity in infants with Down syndrome. Ear and Hearing, 17, 455-468.
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- Sininger, Y.S., Cone-Wesson, B., Folsom, R.C., Gorga, M.P., Vohr, B.R., Widen, J.E., Ekelid, M., Norton, S.J. (2000). Identification of neonatal hearing impairment: Auditory brainstem responses in the perinatal period. Ear and Hearing, 21, 383-399.
- Gorga, M.P., Norton, S.J., Sininger, Y.S., Cone-Wesson, B., Folsom, R.C., Vohr, B.R., Widen, J.E. (2000). Identification of neonatal hearing impairment: Distortion product otoacoustic emissions during the perinatal period. Ear and Hearing, 21, 400-424.
- Norton, S.J., Gorga, M.P., Widen, J.E., Vohr, B.R., Folsom, R.C., Sininger, Y.S., Cone-Wesson, B. (2000). Identification of neonatal hearing impairment: Transient evoked otoacoustic emissions during the perinatal period. Ear and Hearing, 21, 425-442.
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- Widen, J.E., Folsom, R.C., Cone-Wesson, B., Carty, L., Dunnell, J.J., Koebell, K., Loggins, J., Mancl, L.R., Ohlrich, B., Trouba, S., Cone-Wesson, B., Gorga, M.P., Sininger, Y.S., Vohr, B.R., Norton, S.J. (2000). Identification of neonatal hearing impairment: Hearing status at 8-12 months corrected age, visual reinforcement audiometry protocol. Ear and Hearing, 21, 471-487.
- Cone-Wesson, B., Widen, J.E., Vohr, B.R., Folsom, R.C., Gorga, M.P., Sininger, Y.S., Norton, S.J.,(2000). Identification of neonatal hearing impairment: Characteristics of infants with hearing loss. Ear and Hearing, 21, 488-507.
- Norton, S.J., Widen, J.E., Gorga, M.P., Folsom, R.C., Sininger, Y.S., Cone-Wesson, B., Vohr, B.R., Mascher, K.E., Fletcher, K. (2000). Identification of neonatal hearing impairment: Evaluation of TEOAE, DPOAE, and ABR test performance. Ear and Hearing, 21, 508-528.
- Norton, S.J., Widen, J.E., Gorga, M.P., Folsom, R.C., Sininger, Y.S., Cone-Wesson, B. Vohr, B.R., Fletcher, K. (2000). Identification of neonatal hearing impairment: Summary and Recommendations. Ear and Hearing, 21, 529-535.
- Widen, J.W., Bull, R.W. and Folsom, R.C. (2003). Newborn hearing screening: What it means for providers of early intervention services. Infants and Young Children, 16, 249-258.
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- Folsom, R.C. and Mancl, L.R. (2007) "Auditory Brainstem Response Techniques for Infants and Young Children" in Essentials of Audiology, T.N. Decker (ed), Lawrence-Erlbaum, NY.

Mills, D.M., Feeney, M.P., Drake, E.J., Folsom, R.C., Sheppard, L. and Seixas, N.S. (2007). Developing standards for distortion product otoacoustic emission measurements. Journal of the Acoustical Society of America, 122, 2203-2214.

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Education

2009 Doctor of Audiology,
Arizona School of Health Sciences (A.T. Still University), Mesa, Arizona

1979 Master of Speech Pathology and Audiology,
University of Washington, Seattle, Washington

1976 Bachelor of Science-Hearing Sciences, cum laude,
University of Washington, Seattle, Washington



Positions Held

- 2011-present Supervisor/Lecturer, *University of Washington Speech and Hearing Clinic, Seattle WA*
Clinical supervision of Audiology doctoral students
- 2005-present Audiologist, *Agnes Yue, M.D., Seattle WA*
Diagnostic audiology
- 2002-2011 Audiologist, *Northgate Hearing Services, Inc., Seattle WA*
Diagnostic audiology
Hearing aid evaluations, fitting and counseling
- 2000 Audiologist/Manager, *Sonus, Inc., Lynnwood WA*
Diagnostic audiology/ Hearing aid evaluations, fitting and counseling
Managed Lynnwood branch office with 1 front desk employee
- 1986-1999 Audiologist/ Marketing Manager/ Supervisor, *Pacific Hearing and Speech Services, Inc. ,
Everett/Lynnwood, WA*
Diagnostic audiology– adult and pediatric
Hearing aid evaluations, fitting and counseling
Planned and implemented marketing program
Assisted in supervising CFY audiologists
- 1983-1986 Audiologist/ Manager, *HEAR Center, Group Health Cooperative, Seattle WA*
Diagnostic Audiology/ Hearing Aid evaluations, fitting and counseling
Aural Rehabilitation classes
Managed office (1 audiologist, 1 hearing aid dispenser, 1 receptionist/bookkeeper)
- 1979-1983 Audiologist, *Pacific Ear, Nose and Throat Clinic , Inc., Everett WA*
Diagnostic Audiology/Hearing Aid evaluations, fitting and counseling
Aural rehabilitation classes for area senior citizens
Managed and conducted hearing screening for Everett School District (contract)

Professional Organizations

American Speech-Language and Hearing Association
American Doctors of Audiology
American Academy of Audiology
Washington Society of Audiology

Licensure

Washington State Audiology License #216-02-972

Accreditation

Certification of Clinical Competence (American Speech-Language and Hearing Association) 1980
Board Certified in Audiology (American Board of Audiology) 2008

Teaching/Non-audiology Experience

- 1997-2001 Shoreline Community College Cooperative Preschool –Parent Volunteer/Board member
- 2005-2009 John Rogers Elementary School /Concordia Lutheran School –
Drama Instructor (ages 9-14)
- 2003-2006 John Rogers Elementary School-
PTA Board member (Golden Acorn Volunteer Award 2006)
- 2009 -2010 Concordia Lutheran School– Carnival Chair
- 2011-present Nathan Hale - PTSA Board member
- 2012-present Nathan Hale - PTSA Co-President

References: Available on request

**CURRICULUM VITA
MARTHA L. HARNEY**

SPEECH & HEARING SCIENCES
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ACADEMIC RANK

Lecturer

EDUCATION

University of Washington, M.S., Audiology, 1984

Thesis: Auditory Deprivation and its affect on the Auditory Brainstem Response

San Jose State University, B.A. cum laude, Speech and Hearing, 1978

PROFESSIONAL EXPERIENCE

University of Washington, Speech and Hearing Sciences,	
Lecturer	9/01 – Present
The Hear Center, Group Health Cooperative	
Audiologist	9/91 – 9/2001
University of Washington, Speech and Hearing Sciences	
Lecturer Part-time	1/96 – 6/96
University of Washington Speech and Hearing Sciences	
Lecturer Part-time	9/88 – 9/91
University of Washington, Speech and Hearing Sciences	
Research Audiologist	9/88 – 1/93
Hearing Healthcare Center, Olympia Wash	
Audiologist	10/87-8/88
Auburn ENT Clinic, Auburn, Wash	
Audiologist	5/85-10/87

CERTIFICATION AND LICENSING

Certificate of Clinical Competence, Audiology,

 American Speech Language and Hearing Association, 1984 - present

Licensed Audiologist, State of Washington, 1985- present

PROFESSIONAL AFFILIATIONS

American Speech-Language and Hearing Association
American Academy of Audiology
Washington State Academy of Audiology
International Society of Audiology

DEPARTMENT RESPONSIBILITIES

Clinical Supervision

- Responsible for clinical instruction of AuD graduate students in quarterly audiologic diagnostic and rehabilitative clinical rotations. Supervision in audiologic evaluations, hearing aid consultations, fittings and management and Hearing Conservation Program.

Teaching

- SPHSC 588 Professional Seminar - Three-quarter seminar for third year AuD students with focus on professional preparation and practice management;
 - 2007- present
- SPHSC 522 Hearing Aid and Earmold Repair
 - 2007 – present
- SPHSC 391 Undergraduate Audiology Practicum – Observation experiences and seminars for undergraduate students in SPHSC to explore career in audiology
 - Winter 2006 – Winter 2011
- SPHSC 584 Advanced Amplification – Current topics in hearing aids and amplification technology
 - Autumn 2010
- SPHSC 570 Audiologic Assessment – Introductory audiologic assessment course
 - Autumn 2005

Departmental

- Clinic Advisory Committee, 2005 – present
- Admissions Chair –2008 – present; Oversee AuD Admissions process
- Clinical Placement Coordinator –Place all audiology graduate students into \ internal and external clinical placements and maintain communication with all outside clinical placement sites. Update student tracking plans as needed; meet with students regularly regarding clinical placements. Increased number of affiliated clinical placements
- Supervision Seminars for Outside Placement Supervisors; Quarterly 2007- present
- Manage NW Lions Foundation Lions Hearing Aid Bank – supervise two graduate work-study students; liaison with NW Lions Foundation and local Lions Clubs
- Audiology Clinic – co-supervise graduate work-study students

Community Presentations

- UW Supervision Seminar: ‘Ethical Considerations in Supervision’, October 2011
- Washington Speech Hearing and Language Association: ‘International Education: Collaborating for Children with Hearing Loss’, October 2011

- UW SPHSC Grand Rounds: 'International Education: A Teacher-Training Program for Vietnamese Teachers of the Deaf in Auditory-Verbal Methods', January 2011
- University Lions Club: 'Update on Hearing Aid Bank', March 2009
- Expanding Your Horizons, conference to introduce high school girls to careers in science; Bellevue, Wash., March 2008
- Ballard Lions Club, Presentation on Lions Hearing Aid Bank and UW AuD Program, March 2008
- Evergreen Speech and Hearing Clinic, In-Service, 'Precepting the AuD Student', September 2007
- NW Lions Foundation In-Service: 'Hearing Loss and Hearing Aids', July 2007
- Expanding Your Horizons, conference to introduce high school girls to careers in science; Bellevue, Wash. March 2006
- Hearthstone Retirement Home: 'Staying Connected: Hearing Aids and Beyond', November 9th, 2004
- Magnolia Lions Club: 'Hearing Loss and What to do About It', March 9, 2004
- Ida Culver Retirement: 'Hearing Loss and the Impact on Communication', June 17, 2003
- Euthenics Organization: 'What to do About Hearing Loss', October 2001
- Hear Center In-service: 'FM Systems', October 1999
- Washington Speech and Hearing Association Convention: 'Pediatric Amplification', March 1994

Community and Professional Service

- Lead Audiologist/Program Development
Global Foundation for Children With Hearing Loss, month-long Teacher Training Program, Ho Chi Minh City, South Vietnam, July 2010, 2011 and 2012
- American Academy of Audiology, Gold Standards Summit Task Force on Preceptor Education, May 2010 – May 2011
- Board Member, Global Foundation for Children with Hearing Loss, 03/09 – present
- Bellingham Lions Club to El Salvador – Accompanied outreach group to El Salvador Lions Club Project, University of El Salvador and El Salvador Medical Center to assess needs related to audiology services and audiology training, March 2008
- Hearing Screenings – Bloedel Hearing Research Symposium, Ears, Hearing and Beyond; April 2005
- Hearing Screenings – Bryant Elementary School; coordinate hearing screenings September 2002 and 2003
- Executive Board, (VP, President and Past President) Washington Society of Audiology, 1988-1991
- Newsletter Editor, Washington Society of Audiology, 1987–90

UNIVERSITY OF WASHINGTON
College of Arts and Sciences

NAME: Lisa Illich

ACADEMIC RANK: Lecturer, Department of Speech and Hearing Sciences

EDUCATION

Master of Communication Sciences and Disorders
University of Montana Missoula, Montana

Bachelor of Arts, Communication Sciences and Disorders
University of Montana Missoula, Montana

EMPLOYMENT HISTORY

- University of Washington, Seattle, Washington, March 2006 to present
- The Listen for Life Center at Virginia Mason, Seattle, Washington
January 1999 to March 2006
- Virginia Mason Medical Center, Seattle, Washington
June 1995 to April 1998
- Private Contract Audiologist, Seattle, Washington
October 1994 to May 1995
- Virginia Mason Medical Center, Seattle, Washington
May 1993 to June 1994
- Veterans Administration Medical Center, Seattle, Washington
November 1992 to April 1993
- Northwest Hospital Speech & Hearing Center, Seattle, Washington
March 1991 to December 1992
- South Seattle Otolaryngology, Seattle, Washington
October 1990 to March 1991
- Veterans Administration Medical Center, Seattle, Washington
April 1990 to October 1990

TEACHING

a. Practica

SPHSC 591 C – Audiologic Rehabilitation Practicum (quarterly/annually)

b. Courses

SPHSC 580 – Advanced Audiologic Rehabilitation (annually)

SPHSC 542 – Listening to Hearing Loss: Counseling Concepts (summer)

PROFESSIONAL EXPERIENCE

REHABILITATION/EDUCATION

- Clinical Supervisor for aural rehabilitation, University of Washington
- Lecturer on Aural Rehabilitation, University of Washington
- Counseling patients and family members about hearing loss and its impact on communication
- Teaching classes to patients/clients on issues related to hearing loss
- Organizing support groups for adults living with hearing loss
- Providing aural habilitation/rehabilitation to cochlear implant patients
- Teaching children, adults, and parents of hearing impaired children how to use hearing aids and assistive listening devices
- In-services to hospital and nursing home staff members on proper communication with hearing impaired patients; maintenance and care of a patient's hearing aid
- Selection of appropriate assistive listening devices for home, work and school environments
- Community outreach to various groups, in particular Hearing Loss Association of America (HLAA) support groups; presentations on various topics related to hearing loss
- Work-site ADA assessments for employees who have hearing loss

ACHIEVEMENTS/RESPONSIBILITIES

- Began collaboration with Hearing, Speech and Deafness Center to teach five-week speechreading course winter/spring quarter 2011
- Hosted Summer Intensive Auditory Rehabilitation Conference (SIARC) June 2011 – co-organizer; supervised students; intensive 5 days of patient rehab provided
- Special Olympics Washington – Health Hearing Co-faculty organizer/supervisor June 2012
- Began monthly support group for students on campus with hearing loss
- Assisted with development and supervising of clinical comprehensive exams; organized written comprehensive exam January 2012
- Advisor for Student Academy of Audiology
- Collaborated with office of Clinical Skills and Assessment, which provided students the opportunity to work with standardized patients
- Co-Chair, “*Summer Institute on Supervision*”, University of Washington, July 2007, July 2008, July 2009, July 2010, July 2011
- Working with Audiology Interest Group members to improve the clinical AuD experience, University of Washington
- Developing community connections/outreach programs in audiology, University of Washington
- Created and cultivated a unique rehabilitation position at the Listen for Life Center at Virginia Mason
- Co-developer of Virginia Mason's hospital in-patient program for hearing impaired patients
- Contributed to “*Patient Care Standards*”, a national standard for nurses. Wrote “*Care of the Patient with Impaired Hearing*”
- Received Certificate of Completion from the Washington Initiative for Supported Employment and the Northwest ADA & IT Center Partners Training Program, January 2003
- Responsible for writing quarterly reports for the Listen for Life Center
- Responsible for organizing events during National May is Better Hearing and Speech Month
- Supervised university interns at the Listen for Life Center

PROFESSIONAL PAPERS AND PRESENTATIONS

Guest Presentations/Outreach:

- Casey Family Program 4/13/2011, 12/7/2011
- The Theodora Senior Housing Community 10/25/2011
- Council House Senior Housing Community 11/10/2011
- Norse Home Retirement Center 11/15/2011
- Northhaven Retirement Community 2/16/2012, 4/19/2012
- Young Adult Stroke Survivor support group 4/21/2012

New Holly Health Fair

Organized students to provide hearing education to families
July 2011

Guest presenter Assistive Technology Summer Institute,
University of Washington, June 2011, 2010, 2009, 2008, 2007, 2006

Invited to Evergreen Speech & Hearing Clinic to provide educational presentations to patients living with hearing loss
Organized students to present on different hearing loss-related topics
May 2011, 2010

"Technology + Communication Strategies = Better Communication",
Presentation to Hearing Loss Association of America chapter meeting,
Everett, Washington, February 2010

Contributed to King 5 HealthLink Special *"55 Ways to Stay Young"*, December 2004,
"Protecting Your Hearing"

"Listening to Your Patients", facilitator at retreat for Virginia Mason medical residents,
November 2004

"Ears and Hearing; How to Communicate with a Hearing Impaired Customer",
presentation to the University of Washington School of Pharmacy, March, 2004

"Aural Rehabilitation in the Clinical Setting", presenter, International
Adult Aural Rehabilitation Conference, May 2003

"Aural Rehabilitation for the New Hearing Aid User", presentation,
Listen for Life Center Fall Conference, 2002

*"Beyond Hearing Aids; What You Can Do to Help Yourself in the
Communication Process"*, presenter, Listen for Life Center
Fall Conference, 2002

*"Cochlear Implants for Adults: Technology, Candidacy and
Rehabilitation"*, co-presenter, Washington Speech and Hearing
Association Fall Conference, 2002

“An Introduction to the ADA”, co-presenter, Cochlear Implant Support Group, June 2002

“Adult Aural Rehabilitation – Because Hearing Aids Aren’t Enough” presentation, SHHH National Convention, Seattle, WA, June 2002

“Meeting the Communication Needs of the Hard-Of-Hearing In-Patient” co-presenter, SHHH National Conference, Seattle, WA, June 2002

“Hospital Program for In-Patients with Hearing Loss”, co-author, ADVANCE, August, 2001

“Adult Aural Rehabilitation in the Clinical Setting”, Listen for Life Center at Virginia Mason Fall Conference, 2000 and Academy of Rehabilitative Audiology Summer Conference, 2001

“Meeting the Communication Needs of the Hearing-Impaired In-Patient” co-presenter, American Academy of Audiology conference, April 2000

CERTIFICATIONS AND MEMBERSHIPS

Certificate of Clinical Competence, American Speech, Language, Hearing Association

Member of the American Academy of Audiology

Member of the Academy of Rehabilitative Audiology

Member of Washington State Academy of Audiology

Toshiaki Imada

Research Professor
Department of Speech and Hearing Sciences
College of Arts and Sciences
University of Washington

CURRICULUM VITA

Personal Information

Date and Place of Birth: June, 13 1948, Kumamoto, Japan

Laboratory head: Language Neuroimaging Laboratory, Institute for Learning and Brain Sciences,
School of Arts and Sciences, University of Washington, Seattle, USA

Research professor: Department of Speech and Hearing Sciences, School of Arts and Sciences,
University of Washington, Seattle, USA

Educational Background

<u>Institution</u>	<u>Degree</u>	<u>Dates</u>
University of Tokyo	Ph. D. (Electronic Engineering)	Mar. 1976
University of Tokyo	M. A. (Electronic Engineering)	Mar. 1973
University of Tokyo	B. A. (Electric Engineering)	Jun. 1971

Employment Record

<u>Institution</u>	<u>Position</u>	<u>Dates</u>
Nippon Telegraph and Telephone Corp. (NTT)	Engineer	1976-1976
NTT	Assistant Director	1988-1989
NTT	Group Leader	1989-1999
NTT	Senior Manager	1999-2002
University of Washington	Visiting Professor	2002-2006
University of Washington	Research Professor	2006-present
Tokyo Denki University	Visiting Professor	2002-2012
Tokyo Dental College	Visiting Professor	2007-2009
Graduate School,	Guest Lecturer	1993-1994

Osaka University
Graduate School,
University of Tokyo

Guest Lecturer

1996-1997

Professional Offices, Awards, and Affiliations

Editorial Board: The Journal of The Institute of Electronics, Information and Communication Engineers (1990-1993)

Board of Trustees: Subcommittee for High Performance SQUID systems, 146th Committee for Superconducting Electronics, Japan Society for Promotion of Science (1991-2002)

Board of Trustees: Japan Biomagnetism and Bioelectromagnetics Society (1993-1997)

Board of Trustees: Society for Noninvasive Localization of Brain Functions (1994-1998)

Associate Editor: The Journal of Japan Biomagnetism and Bioelectromagnetics Society (1996-1999)

Board of Directors: Japan Biomagnetism and Bioelectromagnetics Society (1997-2008)

Program Chair: The 13th Annual Conference of Japan Biomagnetism and Bioelectromagnetics Society (1998)

Program Committee: The 11th International Conference on Biomagnetism (1998)

Research Affiliate: Low Temperature Laboratory, Helsinki University of Technology (1991-1992)

Research Affiliate: Low Temperature Laboratory, Helsinki University of Technology (1993-1994)

Research Affiliate: Low Temperature Laboratory, Helsinki University of Technology (1994-1995)

Research Affiliate: Low Temperature Laboratory, Helsinki University of Technology (2000)

Research Affiliate: Communications Research Laboratory, Ministry of Post and Telecommunications (Japan) (1995-1997)

Recent Invited Talk

- [6] Imada, T., Pihko, E., Taulu, S., Bosseler, A. N., Ahonen, A., Mäkelä, J. M., Kuhl, P. K. (2010, March). Recording MEG from awake infants of 5 to 16 months old — The methods and the results —. Satellite Symposium on Advances in Human Brain Development Research in 17th International Conference on Biomagnetism (Biomag 2010), SE-5.9, Dubrovnik, Croatia.
- [5] Imada, T., Pihko, E., Taulu, S., Bosseler, A. N., Ahonen, A., Mäkelä, J. M., Kuhl, P. K., Huottilainen, M., Johnson, B., Crain, S. (2010, March). Recording and analysis of perceptual/ cognitive MEG/EEG responses from neonates/infants/children. Symposium on Human Brain Development in 17th International Conference on Biomagnetism (Biomag 2010), S-1.4, Dubrovnik, Croatia.
- [4] Imada, T., Pihko, E., Taulu, S., Bosseler, A. N., Ahonen, A., Mäkelä, J. M., Kuhl, P. K. (2008, August). Recording MEG from awake infants during speech sound stimulation. Symposium on Human Brain Development in 16th International Conference on Biomagnetism (Biomag 2008), Sapporo, Japan.
- [3] Imada, T. (June 16, 2008). MEG measurement and analysis: Responses to speech language. Neurological Seminar, Kyushu University Medical College, Fukuoka, Japan.
- [2] Imada, T. (June 7, 2008). Head is moving, yet neuroimaging: Challenging neuroimaging on a playing infant. The 10th Congress of Japan Human Brain Mapping Society, Yamagata, Japan.
- [1] Imada, T. & Kuhl, P.K. (June 16, 2007). Cutting-edge neuroimaging technology: Language functions from infants to adults. Interdisciplinary Conference on the Sciences of Complexity and Science Education, Kyoto University, Japan.

Publications

[1] Auditory Functions

Books, Book Chapters, and Explanatory Articles:

- [1] Imada, T.: "Chapter 8: Auditory Evoked Brain Magnetic Fields." In: Kuroiwa, Y. and Sonoo, M. (Eds.) Clinical Handbook of Evoked Potentials, Chugai-Igaku-Sha, Tokyo, pp.268-281, 1998. [In Japanese]

Journal Papers:

- [12] Watanabe, M. and Imada, T.: "Effect of preceding tone intensity on the auditory magnetic fields evoked by a pure tone." The Journal of Japan Biomagnetism and Bioelectromagnetic Society, Vol.14, No.2, 33-41, 2001. [In Japanese]
- [11] Kamimoto, S., Asaka, Y., Imada, T., Sekihara, K., and Kotani, M.: "Auditory neuromagnetic responses to acoustic frequency change." The Journal of Japan Biomagnetism and Bioelectromagnetic Society, Vol.14, No.2, 11-17, 2001. [In Japanese]
- [10] Watanabe, M. and Imada, T.: "Effect of preceding pure tone frequency on the auditory magnetic fields evoked by a pure tone." Journal of Japan Biomagnetism and Bioelectromagnetic Society, Vol.13, No.2, 57-65, 2000. [In Japanese]
- [9] Watanabe, M. and Imada, T.: "Effect of the Preceding Pure Tone on the Auditory Magnetic Fields Evoked by a Pure Tone." Journal of Japan Biomagnetism and Bioelectromagnetic Society, Vol.12, No.2, 19-25, 1999. [In Japanese]
- [8] Watanabe, M. and Imada, T.: "Frequency of Paired Tone and Auditory Evoked Magnetic Fields." Journal of Japan Biomagnetism and Bioelectromagnetic Society, Vol.11, No. 2, 15-21, 1998. [In Japanese]
- [7] Nakagawa, S., Ueno, S. and Imada, T.: "Auditory Evoked Magnetic Fields and Stimulus Serial Position." Journal of Magnetics Society of Japan, Vol.22, No.4-2, 785-788, 1998. [In Japanese]
- [6] Imada, T., Watanabe, M., Mashiko, M., Kawakatsu, M. and Kotani, M.: "The silent period between sounds has a stronger effect than the interstimulus interval on auditory evoked magnetic fields." Electroencephalography and Clinical Neurophysiology, 102, 37-45, 1997. PMID: 9060853.
- [5] Imada, T., Kawakatsu, M., Mashiko, T. and Kotani, M.: "Auditory Evoked Brain Magnetic Fields and the Interstimulus Interval" Japanese Journal of Medical Electronics and Biological Engineering, Vol.33, No.1, 15-23, 1995. [In Japanese]
- [4] Hayashi, M. Imada, T., Mashiko, T. and Odaka, K.: "Source Localization of Auditory Magnetic Fields Evoked by Pure Tones and Vowels." Japanese Journal of Electroencephalography and Electromyography, Vol.23, No.3, 303-311, 1995. [In Japanese]
- [3] Hashimoto, I., Mashiko, T., Yoshikawa, K., Mizuta, T., Imada, T. and Hayashi, M.: "Neuromagnetic measurements of the human primary auditory response." Electroencephalography and Clinical

Neurophysiology, Vol.96, 348-356, 1994.

- [2] Imada, T., Hari, R., McEvoy, L., Norman, L. and Sams, M.: "Determinants of the Auditory Mismatch Response." *Electroencephalography and Clinical Neurophysiology*, Vol.87, 144-153, 1993.
- [1] McEvoy, L., Hari, R., Imada, T. and Sams, M.: "Human auditory cortical mechanisms of sound lateralization: II Interaural time differences at sound onset." *Hearing Research*, Vol.67, 98-109, 1993.

[2] Visual Functions

Books, Book Chapters, and Explanatory Articles:

- [4] Imada, T.: "Neuroimaging -- Magnetic Fields from Brain --" *VISION (The Journal of the Vision Society of Japan)*, Vol.8, No.1, pp.1-8, 1996. [In Japanese]
- [3] Imada, T.: "Neuromagnetic Responses to Visual Information." *Image Lab*, Vol. 7, No. 11, 10-14, 1996. [In Japanese]
- [2] Imada, T.: "Neuromagnetic Responses to Visual Stimuli." *Journal of Institute of Television Engineers of Japan*, Vol.50, No.4, 443-449, 1995. [In Japanese]
- [1] Imada, T.: "Chapter 4.4: Visually Evoked Brain Magnetic Fields." In: Hara, H. and Kuriki, S. (Eds.) *Neuromagnetism*, Ohmsha, Tokyo, pp.217-229, 1997. [In Japanese]

Journal Papers:

- [7] Watanabe, K., Sayres, R., Shimojo, S., Imada, T., and Nihei, K.: "Effect of Sodium Valproate on Neuromagnetic Responses to Chromatic Flicker: Implication for Photosensitivity." *Neurology and Clinical Neurophysiology*, Vol.61, 1-7, 2004. (November 30, 2004). PMID: 16012668.
- [6] Watanabe, K., Imada, T., Nihei, K., and Shimojo, S.: "Neuromagnetic responses to chromatic flicker: implications for photosensitivity." *NeuroReport*, Vol. 13, No. 16, 2161-2165, Nov. 2002. PMID: 12438946.
- [5] Kondo, T., Imada, T., Sekihara, K., and Kotani, M.: "Neuromagnetic activity associated with recognition of visual patterns." *The Journal of Japan Biomagnetism and Bioelectromagnetic Society*, Vol.14, No.2, 23-31, 2001. [In Japanese]
- [4] Odaka, K., Imada, T., Mashiko, T. and Hayashi, M.: "Discrepancy between brain magnetic fields elicited by pattern and luminance stimulations in the fovea: Adequate stimulus positions and a measure of discrepancy." *Brain Topography*, Vol. 8, No. 3, 309-316, 1996.
- [3] Odaka, K., Mashiko, T., Imada, T. and Hayashi, M.: "Measurement of Visually Evoked Magnetic Fields by Local Stimulations in Various Visual Fields." *Journal of Mechatronics & Robotics*, Vol.5, No.3, 232-235, 1993.
- [2] Imada, T. and Yodogawa, E.: "Feature Extraction Processing Time in Human Visual System." *Japanese Psychological Research*, Vol.27, No.1, 11-20, 1985.
- [1] Imada, T. and Yodogawa, E.: "Critical SOAs in Pattern-by-Pattern and Pattern-by-Flash Masking: A

[3] Sensorimotor Functions

Books, Book Chapters, and Explanatory Articles:

- [2] Hashimoto, I., Mashiko, T., Imada, T. and Yoshikawa, K.: "Bases and Clinical Applications of Peripheral Magnetic Neurogram." *Clinical Electroencephalography*, Vol.37, No.4, pp.227-233, 1995. [In Japanese]
- [1] Hashimoto, I., Mashiko, T., Imada, T. and Mizuta, T.: "Peripheral Nerve Magnetic Fields." *Neurological Medicine*, Vol.40, No.4, 343-354, 1994. [In Japanese]

Journal Papers:

- [10] Cheng, Y-W., Tzeng, O.V-L., Decety, J., Imada, T., and Hsieh, J-C.: "Gender Differences in the Human Mirror System: a MEG study." *NeuroReport*, Vol.17, No.11, 1115-1119, 2006. PMID: 16837838.
- [9] Hari, R. and Imada, T.: "Ipsilateral Movement-Evoked Fields (MEFs) Reconsidered." *NeuroImage*, Vol.10, 582-588, 1999. PMID: 10547335.
- [8] Hashimoto, I., Mashiko, T., Kimura, T., Imada, T.: "Are there discrete distal-proximal representations of the index finger and palm in the human somatosensory cortex? A neuromagnetic study." *Electroencephalography and Clinical Neurophysiology*, Vol.110, 430-437, 1999. PMID: 10363766.
- [7] Hashimoto, I., Mashiko, T., Kimura, T., Imada, T.: "Human somatosensory evoked magnetic fields to vibratory stimulation of the index finger: is there frequency organization in SI?" *Electroencephalography and Clinical Neurophysiology*, Vol.109, 454-461, 1998. PMID: 9851303.
- [6] Iwase, Y., Kurosawa, H., Mashiko, T., Imada, T. and Hashimoto, I.: "Computer Simulation of Action Potentials as Compared with Measured Magnetic Action Fields in Peripheral Nerve Lesions: Interpretation of an Oscillating Phenomenon." *Journal of Japan Biomagnetism and Bioelectromagnetic Society*, Vol.10, No.2, pp.17-28, 1997. [In Japanese]
- [5] Hashimoto, I., Mashiko, T. and Imada, T.: "Somatic evoked high-frequency magnetic oscillations reflect activity of inhibitory interneurons in the human somatosensory cortex" *Electroencephalography and Clinical Neurophysiology*, Vol.100, pp.189-203, 1996.
- [4] Iwase, Y., Yamauchi, Y., Ochiai, N., Mashiko, T., Imada, T. and Hashimoto, I.: "Multichannel Detection of Magnetic Compound Action Fields in Peripheral Nerve Lesions." *Journal of Japan Biomagnetism and Bioelectromagnetic Society*, Vol.9, No.2, 1-12, 1996. [In Japanese]
- [3] Hashimoto, I., Mashiko, T., Mizuta, T., Imada, T., Iwase, Y., Okazaki, H. and Yoshikawa, K.: "Multichannel detection of magnetic compound action fields with stimulation of the index and little fingers" , *Electroencephalography and Clinical Neurophysiology* , Vol.97, 102-113, 1995.
- [2] Hashimoto, I., Mashiko, T., Mizuta, T., Imada, T., Iwase, K. and Okazaki, H.: "Visualization of a

moving quadrupole with magnetic measurements of peripheral nerve action fields." *Electroencephalography and Clinical Neurophysiology*, Vol.93, 459-467, 1994.

- [1] Hashimoto, I., Mashiko, T., Odaka, K. and Imada, T.: "Multichannel Measurements of Movement-Related Magnetic Fields." *Clinical Electroencephalography*, Vol.34, No.10, 646-652, 1992. [In Japanese]

[4] Higher Order Brain Functions

Books, Book Chapters, and Explanatory Articles:

- [8] Imada, T.: "How does the brain work when hearing speech sounds? -- Human auditory-language neural system, neuroimaging, and artificial intelligence." *Journal of the Japanese Society for Artificial Intelligence*, Vol.20, No.1, 94-103, 2005. [Japanese].
- [7] Imada, T.: "Character Recognition Mechanisms in the Brain Revealed by Magnetoencephalography." *Brain Science*, Vol.22, 645-651, 2000. [In Japanese]
- [6] Imada, T.: "Brain Activity While Recognizing Kana and Kanji Characters." *Clinical Electroencephalography*, Vol.42, 772-779, 2000. [In Japanese]
- [5] Imada, T.: "Brain Activity Associated with Reading Japanese Characters -- Studies by Functional Neuroimaging Methods --" *Advances in Neurological Sciences*, Vol. 43, No. 4, 572-583, 1999. [In Japanese]
- [4] Imada, T.: "Higher Order Brain Functions Revealed by MEG." *Advanced Medicine*, Vol.2, No.4, pp.39-42, 1995. [In Japanese]
- [3] Imada, T.: "Evoked Magnetic Fields Related to Memory and Attention Activities." *Medical Imaging Technology*, Vol. 11, No. 4, 483-491, 1993. [In Japanese]
- [2] Kuriki, S. and Imada, T.: "Chapter 4.5: Brain Magnetic Fields Related to Higher Order Brain Functions." In: Hara, H. and Kuriki, S. (Eds.) *Neuromagnetism*, Ohmsha, Tokyo, pp.229-246, 1997. [In Japanese]
- [1] Imada, T.: "Chapter 13: Brain Magnetic Fields Related to Higher Order Brain Functions." In: Takakura, K. and Okubo, S. (Eds.) *Magnetoencephalography -- Fundamentals and Clinical Application --*, Asakura, Tokyo, pp.158-174, 1994. [In Japanese]

Journal Papers:

- [13] Lin, J.-F., Imada, T., and Kuhl, P.K.: "Mental Addition in Bilinguals: An fMRI Study of Task-Related and Performance-Related Activation." *Cerebral Cortex*, 22, 1851-1861, 2012.
- [12] Zhang, Y., Kuhl, P.K., Imada, T., Iverson, P., Pruitt, J., Stevens, E.B., Kawakatsu, M., Tohkura, T., & Nemoto, I. (Issue 1, May 15, 2009). "Neural signatures of phonetic learning in adulthood: A magnetoencephalography study." *Neuroimage*, 46, 226-240, 2009.
- [11] Imada, T., Zhang, Y., Cheour, M., Taulu, S., Ahonen, A., and Kuhl, P.K.: "Infant Speech Perception

- Activates Broca's Area: A Developmental MEG Study." *NeuroReport*, Vol.17, No.10, 957-962, 2006. PMID: 16791084.
- [10] Zhang, Y., Kuhl, P.K., Imada, T., Kotani, M., and Tohkura, Y.: "Effects of language experience: Neural commitment to language-specific auditory patterns." *NeuroImage*, Vol.26, No.3, 703-720, 2005. PMID: 15955480.
- [9] Cheour, M., Imada, T., Taulu, S., Ahonen, A., Salonen, J., and Kuhl, P.K.: "Magnetoencephalography (MEG) is feasible for infant assessment of auditory discrimination." *Experimental Neurology*, Vol.190, Supplement 1, S44-51, 2004. PMID: 15498541.
- [8] Imada, T., Kawakatsu, M., Kotani, M., and Tojo, M.: "Neuromagnetic Signals Associated with Reading a Kanji Character Formed by Combining two Kanji Radicals." *Japanese Psychological Research*, Vol.42, No.1, 15-25, 2000.
- [7] Iwaki, S., Imada, T., Ueno, S. and Tonoike, M.: "Dynamic Cortical Activation in Mental Image Processing Revealed by Biomagnetic Measurement." *NeuroReport*, Vol.10, No.8, 1793-1797, 1999. PMID: 10501577.
- [6] Nakagawa, S., Ueno, S. and Imada, T.: "Measurements and Source Estimations of Extremely Low Frequency Brain Magnetic Fields in a Short-Term Memory Task by a Whole-Head Neuromagnetometer." *IEEE Trans on MAG*, Vol. 35, No. 5, 4130-4132, 1999.
- [5] Asakawa, K., Imada, T., Kawakatsu, M. and Kotani, M.: "Neuromagnetic Responses to Reading Kanji and Kana Characters." *Journal of Japan Biomagnetism and Bioelectromagnetic Society*, Vol.12, No.2, 11-18, 1999. [In Japanese]
- [4] Nakagawa, S., Ueno, S., Yamanami, K., Iwaki, S., Ueno, K. and Imada, T.: "MEG Measurement and Source Estimation of Brain Activities Associated with a Delayed Paired Comparison Task." *Journal of Magnetism Society of Japan*, Vol.22, No.4-2, 781-784, 1998. [In Japanese]
- [3] Imada, T., Kawakatsu, M., and Kotani, M.: "Analysis of magnetic signals related to reading Japanese characters (hiragana)." In: I. Hashimoto, Y.C. Okada and S. Ogawa (Eds) *Visualization of Information Processing in the Human Brain: Recent Advances in MEG and Functional MRI*. Supplement 47 to *Electroencephalography and Clinical Neurophysiology*, Elsevier Science B. V., Amsterdam, pp.199-208, 1996.
- [2] Kawakatsu, M., Imada, T., Mashiko, T. and Kotani, M.: "Neuromagnetic Responses to the Visually Presented Kanji Characters and Random Dot Patterns." *Japanese Journal of Medical Electronics and Biological Engineering*, Vol.33, No.4, 318-326, 1995. [In Japanese]
- [1] Moroo, I., Imada, T. and Yamada, T.: "Correlation between Prestimulus EEG Power Spectrum and P300 Peak Latency." *Clinical Electroencephalography*, Vol.34, No.8, 493-497, 1992. [In Japanese]

[5] General MEG, Computational MEG, and Apparatus

Books, Book Chapters, and Explanatory Articles:

- [7] Imada, T.: "Noninvasive Observations of Human Brains." Journal of Institute of Electronics, Information and Communication Engineers, Vol.78, No.3, 309-312, 1995. [In Japanese]
- [6] Imada, T.: "Magnetoencephalography -- Recording Brain Activities --" Journal of Telecommunications Association, Vol.58, No.583, pp.43-50, 1995. [In Japanese]
- [5] Imada, T.: "Brain Magnetism." Bussei Kenkyu (Kyoto), Vol.63, No.2, pp.220-239, 1994. [In Japanese]
- [4] Imada, T.: "Research on Information Processing Mechanisms in the Human Brain -- By Brain Magnetic Field Measurement --" NTT Research & Development, Vol.42, No.5, 705-716, 1993. [In Japanese]
- [3] Imada, T.: "Magnetoencephalography" Journal of Technology Transfer (JTT), Vol.16, No.2, 2-4, 1993. [In Japanese]
- [2] Imada, T.: "Measurement and Analysis of Brain Magnetic Field." Journal of Institute of Electronics, Information and Communication Engineers, Vol.74, No. 12, 1298-1306, 1991. [In Japanese]
- [1] Imada, T.: "Revealing Brain Mechanisms by Magnetoencephalography" Journal of NTT Technology, Vol.2, No.6, 77-80, 1990. [In Japanese]

Journal Papers:

- [4] Imada, T. A method for MEG data that obtains linearly-constrained minimum-variance beamformer solution by minimum-norm least-squares method. In Supek, S. & Susac, A. (Eds), Advances in Biomagnetism, IFMBE Proceedings, Vol.28, 152-154, Springer, Heidelberg, 2010.
- [3] Iwaki, S., Ueno, S. and Imada, T.: "Source Estimation of the Magnetic Field Evoked by a Mental Rotation Task." Journal of Magnetics Society of Japan, Vol.22, No.4-2, 777-780, 1998. [In Japanese]
- [2] Odaka, K., Imada, T., Mashiko, T. and Hayashi, M.: "A Portable Magnetic-Noise Free Visual Stimulator for MEG Measurements." Transactions of Institute of Electronics and Communication Engineers, Vol.E79-D, No.2, pp.165-169, 1996.
- [1] Kodama, Y., Aihara, K., Imada, T. and Kotani, M.: "A Correlation Dimensional Analysis of MEG Data." Japanese Journal of Medical Electronics and Biological Engineering, Vol. 31, No. 4, 339-345, 1993. [In Japanese]

[6] Others: Artificial Intelligence, Neural Network, etc.

Books, Book Chapters, and Explanatory Articles:

- [5] Imada, T.: "How does brain work when hearing speech sounds? -- Human auditory-language neural system, neuroimaging, and artificial intelligence --" Journal of the Japanese Society for Artificial Intelligence, Vol.20, No.1, 94-103, 2005. [In Japanese]
- [4] Imada, T.: "MRI, Biological Engineering, Magnetoencephalography, and PET." In: Nakajima, Y., Ando, K., Koyasu, M., Sakano, Y., Shigemasu, K., Tachibana, M. and Hakoda, Y. (Eds.) Dictionary of Psychology, Yuhikaku, Tokyo, pp.70, 497, 674, and 782, 1999. [In Japanese]
- [3] Imada, T.: "Brain and its mysterious functions." In: Takeuchi, I. (Ed.) AI Rhapsody, NTT Press, Tokyo,

pp. 181-203, 1992. [In Japanese]

[2] Imada, T.: "Chapter 4: Nervous System." In: Shimada, S. (Ed. Translation) Human Brain and Artificial Intelligence, Maruzen, Tokyo, pp. 342-373, 1991. [In Japanese]

[1] Imada, T.: "Artificial Intelligence" Ohmsha, Tokyo, 1987. [In Japanese]

Journal Papers:

[2] Imada, T., Sone, S. and Utsunomiya, T.: "On the Associative Memory with the Convergent Recollection Method." Transactions of Institute of Electronics and Communication Engineers, Vol.60-D, No.3, 224-231, 1977. [In Japanese]

[1] Imada, T., Sone, S. and Utsunomiya, T.: "Memory Machine that Has Some Functions of the Human Brain." Transactions of Institute of Electronics and Communication Engineers, Vol.60-D, No.7, 491-498, 1977. [In Japanese]

Karen M. Jacobsen
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Bellevue, WA 98004
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Work Summary

ASHA certified Speech-Language Pathologist and Washington State License. Professional experience includes working with adults and children with a variety of communication (speech, language, feeding/swallowing, and cognitive issues). The last seven years have focused on diagnosing and treating speech and language deficits and delays, social skills, and communication deficits related to autistic spectrum disorder in a pediatric clinical setting.

Experience

Speech-Language Pathologist, MOSAIC Children's Therapy Clinic, Bellevue, WA 2003-Present.

Providing speech, language, and social skills services to the pediatric population ranging in age from early toddler to young adult. Coordinate on-site multi-disciplinary services including, occupational and physical therapies, behavior intervention, and counseling. Primary supervisor of clinical fellows in this setting.

Speech-Language Pathologist, Mosaic Rehabilitation-Evergreen Health, Vancouver, WA 2002-2003.

Delivered speech/language therapy, rehabilitation services, and dysphagia intervention for adult patients following trauma, accident, and illness including CVA, TBI, tracheostomy, and ventilator dependent patients.

Speech-Language Pathologist, Speech-Language and Learning Services, Bellevue, WA 1997-2002.

Provided diagnostic and therapeutic speech and language services to preschool through adult aged clients with articulation and phonological disorders, language delays and disorders, myofunctional swallow, apraxia, dysarthria, autism, Pervasive Developmental Disorder, and Down Syndrome. Worked closely with a group of Speech-Language Pathologists to develop on-going parent education and support programs. Primary trainer for language-learning evaluations for new staff.

Speech-Language Pathologist, Sundance Rehabilitation, Seattle, WA 1994-1996. Completed Clinical Fellowship Year. Provided diagnostic and rehabilitation services to geriatric adults with deficits in memory, cognition, language, and swallowing.

Education

Master of Science, Communicative Disorders
University of Wisconsin- Madison, 1994
Bachelor of Science, Communications,
Portland State University, 1989

Licenses and Certification

American Speech-Language Hearing Association (1995-Present)
Washington State Licensure (2003-present)

Jill Jones Redmond, M.S. CCC-SLP

Clinical Experience

- | | | |
|--|-----------------------|--------------|
| University of Washington | Seattle, WA | 2007-2013 |
| <ul style="list-style-type: none">• Clinical Instructor and fieldwork coordinator of the Master's Medical Speech Pathology program.• Supervised, educated, and trained graduate level clinicians providing services to individuals with speech, language, cognitive-communication, and dysphagia disorders.• Developed program content, developed policies and procedures, managed affiliation agreements/contracts, and developed and instructed in best practices to graduate students and community speech language pathologist.• Educated and monitored compliance of standards including HIPPA and universal precautions.• Chaired committees providing continuing education seminars to community professionals. | | |
| Northwest Speech and Language, LLC | Kirkland, WA | 2005-Current |
| <ul style="list-style-type: none">• Founded a speech-language pathology private practice to assist adults and children in achieving their full communication ability by providing speech, language, swallowing, and cognitive therapy.• Completed evaluations and treatment for clients in multiple settings including skilled nursing facilities, assisted living facilities, adult family homes, and private homes across Seattle and the greater Eastside.• Managed staff of speech pathologists and occupational therapist.• Sponsored and taught conferences and seminars to medical personnel including SLPs, nurses, aids, dietitians, physical therapists, and occupational therapists. | | |
| Signature Home Health | Bellevue, WA | 2006-2012 |
| <ul style="list-style-type: none">• Provided functional evaluations and individualized treatment in the homes of clients transitioning from medical facilities while working with a multidisciplinary team to ensure each patient achieved maximum level of functional independence. | | |
| Gentiva Rehab Without Walls | Mountlake Terrace, WA | 2004-2005 |
| <ul style="list-style-type: none">• Provided functional and individualized treatment in the homes of clients with head injuries to facilitate community reintegration including educating family, caregivers, and teachers of clients. | | |
| Mission Health Care/Communication Plus | Bellevue, WA | 2004-2005 |
| <ul style="list-style-type: none">• Participated in program development of speech department at skilled nursing facility.• Evaluated and treated patients with dysphagia, aphasia, apraxia, dysarthria, and cognitive, disorders with diagnoses including CVA, TBI, trach/vent, SCI, and degenerative diseases. | | |
| Overlake Hospital/Communication Plus | Bellevue, WA | 1999-2004 |
| <ul style="list-style-type: none">• Evaluated and treated patients with dysphagia, aphasia, apraxia, dysarthria, cognitive, and voice disorders with diagnoses including CVA, TBI, trach/vent, SCI, and degenerative diseases.• Supervised CFY therapist<ul style="list-style-type: none">• Represented department on multiple hospital task forces• Designed diagnostic protocols<ul style="list-style-type: none">• Coordinated employee schedules• Authored training manual• Conducted training sessions for RNs<ul style="list-style-type: none">• Presented educational in-services• Completed Modified Barium Swallow Studies• Provided services across multiple settings including acute care, in-patient rehab, and outpatient settings. | | |
| Harborview Medical Center | Seattle, WA | 1998-2001 |
| <ul style="list-style-type: none">• Evaluated and treated patients with dysphagia, aphasia, apraxia, dysarthria, cognitive, and voice disorders with diagnoses including CVA, TBI, trach/vent, SCI, and degenerative diseases.• Completed internship and clinical fellowship year on both acute care and inpatient rehabilitation services and continued working per-diem after CFY completion.• Completed Modified Barium Swallow Studies | | |
| UW Speech & Hearing Clinic | Seattle, WA | 1996-1998 |
| <ul style="list-style-type: none">• Conducted speech-language evaluations and implemented treatment programs for children and adults. | | |
| Center on Human Development and Disability | Seattle, WA | 1997 |
| <ul style="list-style-type: none">• Conducted speech-language evaluations for children as part of a multidisciplinary team. | | |

Education

- M.S. in Speech-Language Pathology** *University of Washington* 1996-1998
- Advanced coursework in neurogenic language and motor speech disorders, phonology, fluency, dysphagia, cognitive rehabilitation, and medical speech pathology.
- B.S. in Speech & Hearing Sci. /Elementary Ed.** *Western Michigan University* 1993-1996
- Coursework in speech, language, hearing development, phonetics, and educational psychology.
- Undergraduate Studies** *University of Illinois* 1991-1993
- General coursework

Related

Experience

- Teaching Assistant/Instructor** *University of Washington* 1996-1998
- Taught undergraduate course SPHS 100: *Voice and Articulation* by presenting lecture material, preparing course examinations, and grading homework assignments.
- Research Assistant** *University of Washington* 1996-1998
- Completed a thesis on semantic and phonologic priming effects utilizing adults with aphasia and apraxia of speech resulting in a publication and presentation of results at the *Clinical Aphasiology Conference, 1998*.
- Research Clinician** *University of Washington* 1997
- Administered child language diagnostic assessments to aid in the development of a parent report on child language development.

Publications

- Co-Authored**
- "Case Presentation: Baclofen pump intervention for spasticity affecting pulmonary function," *The Journal of Spinal Cord Medicine*, 2005
 - "The use of speaking valves with ventilator-dependent and tracheostomy patients," *Current Opinion in Otolaryngology & Head & Neck Surgery*, 2001
 - "Teaching glossopharyngeal breathing to address emergency needs," *Advance for Speech Pathologists & Audiologists*, 2000 (interviewed for publication)
 - "Parameters of semantic and phonologic activation in speakers with aphasia with and without apraxia of speech," *Aphasiology*, 1999

Memberships

- Certified American Speech-Language Association (ASHA) member since 1999
- Licensed Washington State Speech-Language Pathologist since 2003

References

Available upon request

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D.O.B. 1-22-64

Place of Birth: Morgantown, West Virginia

Home Address: 7730 24th Ave NE, Seattle, WA 98115

Home Telephone Number: 206.369.3558

Citizenship: U.S.A.

Education and Training

B.S., West Virginia University, Speech Pathology and Audiology, 1982-86

M.A., California State University, Communication Disorders, 1987-89

Clinical Fellowship, Glendale Adventist Medical Center, Glendale, California, 1988-89

Ph.D. University of Pittsburgh, Communication Science and Disorders, 1994-1999

Clinical Fellow Trainee, VA Medical Center, Pittsburgh, Pennsylvania, 1995-1996

Licensure

1989 American Speech-Language Hearing Association

1989 California State (7897)

1989 Pennsylvania State (SL002998L)

1998 Florida State (5049)

2008 Washington State (LL 60032979)

Professional Experience

1989-1991 Clinical Speech-Language Pathologist, Department of Rehabilitation Medicine, Pittsburgh, PA

1991-1992 Clinical Speech-Language Pathologist, Harmarville Rehabilitation, Pittsburgh, PA

1992-1994 Senior Speech-Language Pathologist, Department of Otorhinolaryngology: Head and Neck University of Pennsylvania Medical Center, Philadelphia, PA

1998-2008 Faculty, Brain Institute, University of Florida, Gainesville, FL

1998-2008 Faculty, Center for Neuropsychological Studies, University of Florida, Gainesville, FL

2000-2008 Research Scientist, VA Brain Rehabilitation & Research Center of Excellence, VA Medical Center, Gainesville, FL.

2001-2007 Assistant Professor Departments of Communicative Disorders, Neurology and Communication Sciences and Disorders, University of Florida, Gainesville, FL.

2007-2008 Associate Professor Department of Communication Science and Disorders, University of Florida, Gainesville, FL

2000-2008 Clinical Coordinator of Speech Pathology, VA Brain Rehabilitation & Research Center of Excellence, VA Medical Center, Gainesville, FL

2008-present Associate Professor Speech and Hearing Sciences, University of Washington, Seattle, WA

Awards and Honors

Erskine Fellow, University of Canterbury, Christchurch, New Zealand. 2006

Clinical Achievement Award, Washington State Speech and Hearing Association, 2011

Grant Activity Funded

2011-2012 University of Washington Research Royalty Foundation

- PI: Diane Kendall, PhD, Co-PI: Jeffrey Ojemann
 Reorganization of language prior to anterior temporal lobe surgery: Can deficits be mitigated?
 \$40,000
- 2010 – 2013 VA RR&D Merit Review Grant
 PI: Diane Kendall, PhD, Co-PI: Stephen Nadeau
 Real word effects in phonological treatment for word retrieval
 \$750,000
- 2009 - 2010 University of Washington Provost Bridge Funding
 PI: Diane Kendall, PhD
 \$100,000
- 2006 – 2007 GlaxoSmithKline, Inc.
 “Computer Adaptive Measure of Functional Cognition”
 PI: Craig Velozo, Ph.D., Co-PI: Diane Kendall, Ph.D.
 \$10,850
- 2005 – 2008 VA RR&D Advanced Career Development Research Award
 “Standardized Assessment of Phonologic Processing in Aphasia”
 PI: Diane Kendall, Ph.D.
 \$370,900
- 2002 – 2005 VA RR&D Career Development Research Award
 “Phonological Rehabilitation of Anomia”
 PI: Diane Kendall, Ph.D.
 \$303,966
- 2001 - 2003 VA RR&D Collaborative Grant
 “Intensive Speech Focused Treatment for Chronic Aphasia”
 PI: Diane Kendall, PhD; Co-PI: Lynn Maher, PhD.
 \$100,000
- 2000 – 2002 VA RR&D Research Associate Investigator Award
 “Phonological Rehabilitation of Acquired Alexia”
 PI: Diane Kendall, Ph.D.
 \$86,458

Publications

40. Minkina, I., Ojemann, J., Grabowski, T., Silkes, J., Phatak, V., **Kendall, D.** (accepted for publication) The reorganization of proper names: Treatment of proper name retrieval deficits in an individual with temporal lobe epilepsy.
39. **Kendall, D.**, Pompon, R., Brookshire, E., Minkina, I., Bislick, L. (accepted for publication). An analysis of aphasic naming errors as an indicator of improved linguistic processing following phonomotor treatment.
38. Dierkes, K., Silkes, J., **Kendall, D.** Masked repetition priming effects on naming in aphasia: A phase I treatment study. (accepted for publication).
37. Bislick, L., **Kendall, D.** (in press). Phonomotor rehabilitation of apraxia of speech: *Journal of Medical Speech Language Pathology*.
36. Gray, C., Baylor, C., Eadie, T., **Kendall, D.**, & Yorkston, K. M. (in press)(2012). The Levels of Speech Usage rating scale: comparison of client self-ratings with speech pathologist ratings. *International Journal of Language and Communication Disorders*.
35. Bislick, L., Wear, P., Spencer, K., **Kendall, D.**, Yorkston, K. (accepted for publication) Do Principles of Motor Learning Enhance Retention and Transfer of Speech Skills?: A Systematic Review.
34. Baylor, C., Hula, W., Donovan, N., Doyle, P., **Kendall, D.**, Yorkston, K. (2011). An introduction to Item Response Theory for speech language pathologists. Vol.20 243-259 doi:10.1044/1058-0360.
33. Morielli, C., Altmann, L., **Kendall, D.**, Fischler, I., Heilman, K. (2011). Effects of semantic elaboration and typicality on picture naming in Alzheimer’s disease. *Journal of Communication Disorders*, (44), 413-428. Doi: 10.1016/j.jcomdis.2011.01.006.
32. Hunting-Pompon, R, **Kendall, DL** and Moore, AB (2011). Examining attention and cognitive processing in participants with self-reported mild anomia. *Aphasiology*, 25(6-7), 800-812.

31. del Toro, C., Bislick, L., Comer, M., Velozo, C., Romero, S., Gonzalez Rothi, L., **Kendall, D.** (2011). Development of a short form Boston Naming Test for individuals with aphasia. Journal of Speech, Language and Hearing Research Vol.54 1089-1100 doi:10.1044/1092-4388
30. Ballard, KJ, Varley, R., **Kendall, D.** (2010). Promising Approaches to Treatment of Apraxia of Speech: Preliminary Evidence and Directions for the Future. Perspectives on Neurophysiology and Neurogenic Speech and Language Disorders; (20) 87-93. doi: 10.1044/nnsld20.3.87
29. Jones, H., **Kendall, D.**, Okun, M., Wu, S., Velozo, C., Fernandez, H., Spencer, K., Rosenbek, J. (2010). Speech motor program maintenance, but not switching, is enhanced by left hemispheric deep brain stimulation in Parkinson's disease. International Journal of Speech-Language Pathology, pg 1-14.
28. Hula, W., **Kendall, D.**, Gonzalez Rothi, LJ Donavan, N. (2010) Item response theory analysis of the Western Aphasia Battery. Aphasiology, vol 24(11), pp. 1326-1341.
27. Rothi, L.J., Fuller, R, Leon, S, **Kendall, D.L.**, Moore, A.B, Nadeau, S. ,Wu, S., Crosson, B. and Heilman, K. Errorless practice as a possible adjuvant to donepezil in Alzheimer's disease (2009). Journal of the International Neuropsychologic Society, (15) 311-322.
26. Donovan, N.J., **Kendall, D.L.**, Young, M.E., & Rosenbek, J.C. (2008) The Communicative Effectiveness Survey: Preliminary evidence of construct validity. American Journal of Speech-Language Pathology (17), 335-347.
25. Donovan, N.J., Velozo, C.A., Duncan, P.W., **Kendall, D.L.**, Heaton, S.C., Kwon, S. (2008). Using the FDA PRO Guidelines to Develop a Computerized Adaptive Outcome Measure of Functional Cognition for Stroke. Stroke, 39(2):702-703.
24. **Kendall, D.L.**, Rosenbek, J., Heilman, K., Conway, T., Klenberg, K., Gonzalez-Rothi, L.J., Nadeau, S. (2008) Phoneme-based rehabilitation of anomia in aphasia. Brain and Language, 105, 1-17.
23. Jones, H. N., **Kendall, D. L.**, Sudhyadhom, A., & Rosenbek, J. C. (2008). The effects of lesion therapy and deep brain stimulation on speech function in patients with Parkinson's disease. Communication Disorders Review, (1), pp. 133-173.
22. Donovan, N.J., **Kendall, D.L.**, Heaton, S.D., Kwon, S., Velozo, C.A., & Duncan, P.W. Conceptualizing functional cognition in stroke (2008). Neurorehabilitation and Neural Repair. 22(2):122-35.
21. Aphasia Workgroup. Translational Research in Aphasia: From Neuroscience to Neurorehabilitation. (2008) Journal of Speech and Hearing Research., 51, 259-275.
20. Nadeau, S.E. **Kendall DL** (2006). Significance and possible mechanisms underlying generalization in aphasia therapy: semantic treatment of anomia. Brain and Language; 99: 10-11.
19. Crosson, Fabrizio, Singletary, Cato, Wierenga, Parkinson, Gaiefsky, Moore, Ciampetti, Holliday, Leon, Rodriguez, **Kendall**, Levy, Rothi. (2007) Treatment of Intention and Attention in Nonfluent Aphasia: A Phase 1 Comparison of Two Novel Treatments. Journal of the International Neuropsychologic Society, 13, 1-13.
18. Donovan, N.J., **Kendall, D.L.**, Moore, A.B., Rosenbek, & Rothi, L. J. G. (2007). Why Consider Impaired Social Language Usage in Corticobasal Degeneration? Clinical Neuropsychologist, 21, 190-203.
17. **Kendall, D.**, Nadeau, S., Conway, T., Fuller, R., Riestra, A., Gonzalez Rothi, LJ. (2006). Treatability of Different Components of Aphasia — Insights from a Case Study Journal of Rehabilitation Research & Development, 43 (3), 323-336.
16. **Kendall, D.**, Rodriguez, A., Rosenbek, J., Conway, T., Gonzalez Rothi, L. (2006).The Influence of Intensive Phono-Motor Rehabilitation of Apraxia of Speech. Journal of Rehabilitation Research and Development. 43 (3), 323-336.
15. Roth HL, Eskin TA, **Kendall DL**, Heilman KM. (2006) Progressive Oculo-Orofacial-Speech Apraxia (POOSA) Neurocase. 12(4):221-7.
14. Maher, L. **Kendall, D.**, Swearingin, J., Rodriguez, A., Leon, S., Pingel, K., Holland, A., Gonzalez Rothi, L. (2006) Constraint Induced Language Therapy: A Pilot Study. Journal of Neuropsychological Studies. Vol 12(6), Nov. pp. 843-852.
13. Altmann, Lori, Saleem, Ahmad, **Kendall, D.**, Heilman, Kenneth, and Gonzalez Rothi, LJ (2006). Orthographic Directionality and Thematic Role Illustration in English and Arabic. Brain and Language, 97, 306-316.
12. **Kendall, D.**, McNeil, M., Shaiman, S., Pratt, S. (2005). Phonetic encoding of novel articulatory gestures. Aphasiology, 19 (1), 39-52.

11. **Kendall, D** (2004). Social, Economic and Environmental Influences on Disorders of Hearing, Language and Speech. Journal of Communication Disorders, (38) 261-262.
10. **Kendall, D.**, Conway, T., Rosenbek, J., & Gonzalez-Rothi, L. (2003). Phonological rehabilitation of acquired phonologic alexia. Aphasiology, 17 (11), 1073-1095.
9. Raymer, A.M., Haley, M.A., **Kendall, D.** (2002) Overgeneralization in Treatment for Severe Apraxia of Speech: A Case Study. Journal of Medical Speech Pathology, 10 (4), 313-317.
8. Fuller, R.H., **Kendall, D.**, Nadeau, S.E., Spevack, A.A., Heilman K.M. & Gonzalez Rothi, L.J. (2001). Reducing anomia with cholinergic therapy. Advanced Studies in Medicine, Vol 1 (8), 335-336.
7. **Kendall, D.** & Gonzalez-Rothi, L. (2001). Epilogue: Neuroimaging with a view to prediction and prognosis. (2001) Topics in Language Disorders: Current Neuroimaging Perspectives, Vol. 21, No. 3, pp. 75-84.
6. **Kendall, D.** (2000). Counseling in Communication Disorders. Contemporary Issues in Communication Science and Disorders, 27, 96-103.
5. **Kendall, D.**, McNeil, M.R. & Shaiman, S. & Simonian, M.A. (1999). Phonetic Variability in Flaccid Dysarthric Speech. American Journal of Medical Speech Pathology, 1(2), 107-111.
4. **Kendall, D.**, McNeil, M.R., & Small, S.L. (1998). Rule-based treatment for acquired phonological dyslexia. Aphasiology, 12 (7/8) 587-600.
3. McNeil, M.R., Doyle, P., Small, S.L., Spencer, K., Goda, A. & **Kendall, D.**, Small, S.L. (1998). Effects of training multiple form classes on acquisition, generalization and maintenance of word retrieval in a single subject. Aphasiology, 12 (7/8) 575-585.
2. Small, S.L., **Kendall, D.**, Noll, D.C. (1998). Different neural circuits subserve reading before and after therapy for acquired dyslexia. Brain and Language, 62 (2), 298-308.
1. McNeil, M.R., Doyle, P., Small, S.L., Spencer, K., Goda, A. & **Kendall, D.** (1997). A double-blind, placebo-controlled, pharmacological and behavioral treatment of lexical-semantic deficits in aphasia, Aphasiology, 11 (4/5), 385-400.

Manuscripts Submitted

1. **Kendall, D.**, Minkina, I., Bislick, L., Grabowski, T., Phatak, V., Silkes, J., Ojemann, J. (submitted). Reorganization of language prior to anterior temporal lobe surgery: Can deficits be mitigated?
2. Conway, T., **Kendall, D.**, Crosson, B., Meinzer, M., Heilman, K., Gonzalez-Rothi, L. (submitted) Multimodal intensive treatment of phonological alexia: Training sublexical phonological processing prior to training nonlexical reading.

Book Chapters

1. Nadeau, S.E and **Kendall, D.L.** Phonology, Semantics and Lexical Semantics. In Clinical Neuropsychology.
2. Riley, E. and **Kendall, D.L.** The acquired disorders of reading. In Aphasia and Related Neurogenic Communication Disorders. Eds. Papathanasiou, I., Coppens, P. and Potagas, C.

Invited Lectures, Speeches

International

1. Kendall, D. (2011) Phonologic rehabilitation. Beirut, Lebanon
2. Kendall, D. (2009). Phonologic therapy for alexia. Beirut, Lebanon.
3. Kendall, D. (2006). Research in the clinical environment. New Zealand Speech Pathology Association. Christchurch, New Zealand
4. Rehabilitation of Anomia in Aphasia. Center for Neurosciences. Mexico City, Mexico. 2006.
5. Rehabilitation of Acquired Alexia: The Second International Conference on Disability and Rehabilitation. Riyadh, Saudi Arabia. 2000

National

1. Phonologic rehabilitation of aphasia. Pittsburgh VAMC. August 2011.
2. Neurogenic Communication Disorders. Short course. State of Virginia Speech and Hearing Association. Richmond, VA. March 2003.

State

1. Rehabilitation of adult neurogenic communication disorders. Washington State Speech Pathology Association (WSHA), October 2012
2. Neuroanatomy and recent advances in diagnosis and treatment of aphasia. Washington State Speech Pathology Association (WSHA), October 2011
3. Re-wiring the brain: Aphasia treatment. Washington State Stroke Consortium. October 2011
4. Rehabilitation of chronic aphasia. Stroke Symposium. Harborview Medical Center. April 2011.
5. Rehabilitation of chronic aphasia from the perspective of neuroplasticity. Washington State Speech Pathology Association (WSHA). October 2010.
6. Rehabilitation of Aphasia, Jacksonville Area Speech Pathology Association (JASPA). March 2008.
7. Rehabilitation of Chronic Aphasia, Stroke of Hope, West Palm Beach, Florida, October 2007.
8. Phonologic Disorders and Treatment. Florida Society of Neurology, Orlando, Florida. December 2003.
9. Treatment of Alexia. Florida Society of Neurology, Orlando, Florida. December 2003.
10. Phonologic Rehabilitation of Aphasia. Florida Speech and Hearing Association. Marco Island, FL. May 2003.
11. Phonologic Assessment in Aphasia. Florida Society of Neurology, Orlando, Florida. December 2002.
12. Stroke Rehabilitation. Winterhaven Hospital. Winterhaven, Florida. February 2002.
13. What's New in Stroke Rehabilitation. Stroke of Hope Club. West Palm Beach, Florida. October 2001.

Published Abstracts

1. A.D. Rodriguez, S.E. Nadeau, **D.L. Kendall**, J.C. Rosenbek, K.M. Heilman, L.J. Gonzalez Rothi (2008). "Is Boston Naming Test and Action Naming Test Performance Comparable in Individuals with Aphasia?" International Neuropsychological Society, February 6-8th, Waikoloa, HI
2. Yu-Ling Chang, Tim Conway, Diane **Kendall**, Keith McGregor, Kaundinya Gopinath, Kyung K. Peck, Michelle Benjamin, Marc Kurtzman, Ashley Wabnitz, Trista Perez, Leslie J. Gonzalez Rothi, Keith D. White, Bruce Crosson (2006) BOLD fMRI Reveals Neural Reorganization of Overt Pseudoword Repetition Following Phonological-Motor Rehabilitation of Phonological Alexia in Nonfluent Aphasia. International Neuropsychological Society.
3. Kyle B. Womack, Diane L. **Kendall**, John C. Rosenbek, Alonso Riestra, Haijing Qin, Kimberly Reid, Leslie J. Gonzalez Rothi. Effects of Age and Race on Aphasia. (2005) Journal of the International Neuropsychological Society.
4. Morielli, C., **Kendall**, D, Rosenbek, J. Riestra, A, Womack, K., Qin, H., Reid, K., Efros, D. and Gonzalez Rothi, L.J. (2004) Effects of Education on Aphasia Severity. Journal of the International Neuropsychological Society, Supplement 1, Volume 10 Page 214.
5. Roth H.L., Eskin T.A., **Kendall** D.L., Heilman K.M. A pathologically distinct case of progressive orculo-orofacial apraxia. Presented at the 55th Annual Meeting of the American Academy of Neurology. Honolulu Hawaii, April, 2003 [Abstract: Neurology 60: A191 (Suppl.1)].
6. Saleem, A., **Kendall**, D., Gonzalez Rothi, L.J., Maher, L., Heilman, K. (2003) The effects of written directionality on thematic role assignment. Journal of the International Neuropsychological Society, 9 (2), 147.
7. **Kendall**, D., Moore, A.B. & Rothi, L.J.G. (2003). An inventory of cognitive deficits in chronic unilateral CVA patients: Helping us to determine where to put our rehabilitation efforts. Journal of the International Neuropsychological Society, 9 (2), 147.
8. Richards, K., Wierenga, C., Singletary, F., Fuller, R., Rodriguez, A., **Kendall**, D., Gonzalez Rothi, L, Crosson, B. (2003). Comparison of Intention and Attention Treatments in Nonfluent Aphasia. Journal of the International Neuropsychological Society, 9 (2), 147.
9. Wierenga, C, Richards, K., Singletary, F., Rodriguez, A., **Kendall**, D., Leon, S., Gonzalez Rothi. (2003). Intention and attention treatments of high functioning nonfluent aphasia. Journal of the International Neuropsychological Society, 9 (2), 193.
10. Leon, S, Heilman, K., Fuller, R., **Kendall**, D., Gonzalez Rothi. (2003). Cognitive-Cholinergic Therapy of Anomia in Six Cases of Alzheimer's Disease. Journal of the International Neuropsychological Society, 9 (2), 194.

11. Maher, L.M., **Kendall, D.**, Swearingin, J.A., Pingle, K., Holland, A., & Rothi, L.J.G. (2003). Constraint Induced Language Therapy for Chronic Aphasia: Preliminary findings. *Journal of the International Neuropsychological Society*, 9, 192.
12. Donovan, N., **Kendall, D.**, Bacon-Moore, A., Kodosi, M., Rosenbek, J., Todd, J., and Rothi, L. J.G. Corticobasal Degeneration: Quantifying Neurologic and Cognitive-Linguistic Behaviors. *Journal of the International Neuropsychological Society*, 9 (2), 307.
13. **Kendall, D.** Conway, T., Rosenbek, J., Gonzalez Rothi, L., (2002). Rehabilitation of Phonological Processing in Chronic Aphasia. *Journal of the International Neuropsychological Society*, Vol 8 (2), 290.
14. Maher, M, Singletary, F., Swearingin, J., Clayton, C., Vincent, L., Moore, A., Wierenga, C., Crosson, B., **Kendall, D.**, Nadeau, S., Gonzalez Rothi, L. (2002) Errorless Learning in the Rehabilitation of Sentence Generation in Agrammatism. *Journal of the International Neuropsychological Society*, Vol 8 (2), 177.
15. C. E. Wierenga, A. B. Moore, B. Crosson, L. M. Maher, D. Soltysik, K. K. Peck, K. Gopinath, K. M. Heilman, L. Gonzalez Rothi, D. **Kendall**, R. W. Briggs. (2002) Changes in Brain Activation with Treatment of Agrammatism: An fMRI Study. *Journal of the International Neuropsychological Society*, Vol 8 (2), 206.
16. Fuller, R., **Kendall, D.**, Nadeau, S., Moore, A., Heilman, K., Gonzalez Rothi, L. (2002). Indicators of Success in Cognitive-Cholinergic Therapy in Alzheimer's Disease. *Journal of the International Neuropsychological Society*, Vol 8 (2) 197.
17. **Kendall, D.**, Conway, T., Rosenbek, J., & Gonzalez Rothi, L. (2002). Phonological Treatment for Apraxia of Speech. Proceedings of the Third VA Rehabilitation Research and Development Conference. Washington, DC.
18. Raymer, A.M., Hayley, M.A., & **Kendall, D.** Motor Treatment for Severe Apraxia of Speech. (2002). Proceedings of the Third VA Rehabilitation Research and Development Conference. Washington, DC.
19. Jones, V., Bacon Moore, A., **Kendall, D.**, Gonzalez Rothi, L., Crosson, B. (2002). Generalization of Semantic Effects from Treatment of Word-Finding Deficits in a Bilingual Patient. Proceedings of the Third VA Rehabilitation Research and Development Conference. Washington, DC.

Refereed Presentations

National/International

2012 Kempler, D., Goral, M., Kendall, D. Does phonological treatment that improves picture naming generalize to discourse production? *Academy of Aphasia*. October 2012. San Francisco, CA.

Minkina, I., Ojemann, J, Grabowski, T., Bislick, L., Phatak, V., Silkes, J., Kendall, D. Reorganization of language prior to temporal lobe surgery: can deficits be mitigated? Case study of 3 individuals with epilepsy. Poster presented at the Academy of Aphasia, San Francisco, Oct 29, 2012.

Kendall, D., Brookshire, L., Oelke, M., Nadeau, S. Intensive phonomotor rehabilitation of anomia in seventeen individuals with aphasia. *Clinical Aphasiology Conference*. June 2012. Lake Tahoe, CA.

Silkes, J.P., Dierkes, K., and Kendall, D. Masked Priming Treatment for Anomia – A Phase 1 Study. *Clinical Aphasiology Conference*. June 2012. Lake Tahoe, CA.

Minkina, I., Ojemann, J., Grabowski, T., Silkes, J., Kendall, D., The reorganization of proper nouns: treatment of proper noun retrieval deficits in an individual with temporal lobe epilepsy. *Clinical Aphasiology Conference*. June 2012. Lake Tahoe, CA.

Hunting-Pompon, R., Brookshire, C., Minkina, I., Bislick, L., Kendall, D., Using error type on confrontation naming as an indicator of improved linguistic processing following phonomotor treatment. *Clinical Aphasiology Conference*. June 2012. Lake Tahoe, CA.

- Fassbinder, W., McNeil, M., Kim, H., Pratt, S., Dickey, M., Lim, K., Kendall, D., Pompon, R., Szuminsky. Predictors of slowed reading times in persons with aphasia and control participants. Clinical Aphasiology Conference. June 2012. Lake Tahoe, CA.
- Brookshire, C., Bislick, L., Wilson, J., Nadeau, S., Gonzalez Rothi, L., Kendall, D. The Prevalence and Nature of Alexia in Chronic Aphasia. Poster presented at the American Speech and Hearing Association Conference. October 2012. Atlanta, GA.
- Silkes, J.P., Minkina, I., Kendall, D., Grabowski, T., Bislick, L., del Toro, C., Phatak, V., and Ojemann, J.G. Mitigation of proper noun retrieval impairments in temporal lobe epilepsy. Clinical education platform to the American Speech-Language-Hearing Association Convention.
- Lim, KY, McNeil, Fassbinder, Dickey, Kendall, D., Pratt, S., Kim, H. Stroop reflects interference effects in fast but not slow readers. Poster presented at the American Speech and Hearing Association Conference. October 2012. Atlanta, GA.
- 2011 Kendall, D., Bislick, Grabowski, T., Phatak, V., Ojemann, J. Reorganization of language prior to anterior temporal lobe surgery: Can deficits be mitigated? Paper presented to the International Neuropsychological Society meeting. February 2011. Boston, MA.
- Kendall, D., Brookshire, C., Nadeau, S.. Phonological rehabilitation of word retrieval deficits in 4 individuals with fluent aphasia. Clinical Aphasiology Conference. June 2011. Ft. Lauderdale, FL.
- Bislick, L. Kendall, D., Phonomotor Rehabilitation of Apraxia of Speech: A Phase II Study. Clinical Aphasiology Conference. June 2011. Ft. Lauderdale, FL.
- del Toro, C.M., Crosson, B., Edmonds, L., Gonzalez-Rothi, L., & Kendall, D.L. The effects of feature type on semantic priming of picture naming in normal speakers. A poster presented at Clinical Aphasiology Conference, Ft. Lauderdale, FL, May 2011.
- Brookshire, C., del Toro, C., Kendall, D. Phonological Rehabilitation of Alexia and Anomia in an Individual with Aphasia. Clinical Aphasiology Conference. June 2011. Ft. Lauderdale, FL.
- Dickey, M., Kendall, D. Varieties of linguistic complexity in a standardized assessment of language performance Clinical Aphasiology Conference. June 2011. Ft. Lauderdale, FL.
- Fassbinder, W., McNeil, M., Dickey, M., Lim, Kyoung, Pratt, S., Kim, A., Kendall, D., Pompon, R., Szuminsky, N. Developing a standardized measure of short-term memory and syntactic complexity: results from subtests of the CRTT-R Clinical Aphasiology Conference. June 2011. Ft. Lauderdale, FL.
- McNeil, M. Kendall, D. Pompon, R., Dickey, M., Fassbinder, W. Effects of linguistic complexity and executive attentional demands on sentence comprehension in persons with aphasia and normal controls: Exploring on-line and offline measures with two reading versions of the Computerized Revised Token Test" Clinical Aphasiology Conference. June 2011. Ft. Lauderdale, FL.
- 2010 Gray, C., Kendall, E. Levels of Speech Usage: Comparing Clinician Ratings to Client Ratings. American Speech and Hearing Association. November 2010. Philadelphia.
- Kendall, D., del Toro, C., Nadeau, S., Johnson, J., Rosenbek, J., Velozo, C. The development of a standardized assessment of phonology in aphasia. Clinical Aphasiology Conference. June 2010, Isle of Palm, SC.

McNeil, M., Kim, A., Lim, K., Pratt, S., Kendall, D., Hunting Pompon, R. Szminsky, N., Fassbinder, W., Sung, J., Kim, H. Hamer, K, Dickey, M. Automatic activation, interference and facilitation effects in persons with aphasia and normal adult controls on experimental CRTT-R-Stroop tasks. Clinical Aphasiology Conference. June 2010, Isle of Palm, SC.

Hunting Pompon, R., Silkes, J., Kendall, D., Moore, AB. Exploring the relationship between high level anomia, attention and automatic vs. controlled processing: a retrospective data analysis. Clinical Aphasiology Conference. June 2010, Isle of Palm, SC

2009 Gilbert, J., Kendall, D., Rose, M., Raymer, S., Gonzalez Rothi, L. Therapy for word retrieval deficits in aphasia. Florida Speech Language Hearing Association meeting. June 2009. Marco Island, Florida.

Veloza, C., Kendall, D., Heaton, S., Kwon, S., Singletary, F., Wang, JH, Donovan, N., Duncan, P. Development of an item bank for a computer adaptive measure of functional cognition for stroke. International Society For Pharmacoeconomics and Outcomes Research Conference. May 2009. Orlando, Florida

Hula, W., Kendall, D., Gonzalez Rothi, LJ Donavan, N.,. Item response theory analysis of the Western Aphasia Battery. Clinical Aphasiology Conference (CAC). June 2009.

del Toro, C.M., Johnson, J., Vellozo, C., Comer, M., Malek, K., & Kendall, D.L. The Development of a Standardized Assessment of Phonology in Aphasia: Creating Items to Test Repetition. Aphasiology Conference (CAC). June 2009.

Conway, T., Kendall, D. Neural correlates of rehabilitation of phonological alexia. Clinical Aphasiology Conference (CAC). June 2009.

2008 Bislick, L., Del Toro, C., Vellozo, C., Kendall, D. Boston Naming Test: Do we need semantic cues? American Speech and Hearing Association (ASHA) November 2008.

Ouimet, S., Nadeau, S., Kendall, D. Boston Naming Test: Proper versus common noun naming in aphasia. American Speech and Hearing Association (ASHA) November 2008.

Del Toro, C., Vellozo, C., Kendall, D. Item development of a test for phonologic processing in aphasia. American Speech and Hearing Association (ASHA) November 2008.

Kaskie, T., Rogalski, Y., Kabasakalian, A., Neils-Strunjas, J., Kendall, D., Altmann, L., Reilly, J. Lexical characteristics of letter-guided fluency naming in Alzheimer's Disease: Chronic aphasia and healthy adults. Academy of Aphasia. November 2008

Del Toro, C., Kendall, D., Vellozo, C. Creation of a short form Boston Naming Test for individuals with aphasia. Clinical Aphasiology Conference. June 2008.

McCann, Sarah; M.S.; Conway, Tim; Ph.D. ; Reckess, Gila Z.; M.S., Crosson, Bruce; Ph.D. ; Kendall, Diane; Ph.D.; Heilman, Kenneth M.; M.D. ; Nadeau, Stephen; M.D. Lateralization of Verbal and Visuospatial Working Memory in Chronic Stroke. APA Convention 2008.

Donovan, N.J., Vellozo, C.A., Duncan, P.W., Kendall, D.L., Heaton, S.C., Kwon, S. Using the FDA PRO Guidelines to Develop a Computerized Adaptive Measure of Functional Cognition for Stroke. International Stroke Conference, New Orleans, LA 02/2008 (Poster)

- 2007 AD Rodriguez, DL Kendall, KM Heilman, SE Nadeau, J Cheng & LJG Rothi. Noun and Verb Naming and Verbal Fluency in Aphasia. American Speech and Hearing Conference (ASHA). November 2007.
- Wilson, J., Gonzalez Rothi, Nadeau, Kendall. Prevalence and Incidence of alexia in aphasia. American Speech and Hearing Conference (ASHA). November 2007.
- Del Toro, C., Kendall. Nonword reading aloud in aphasia. American Speech and Hearing Conference (ASHA). November 2007.
- Kendall, D., Rosenbek, J., Heilman, K., Conway, T., Klenberg, K., Gonzalez-Rothi, L.J., Nadeau, S. Phoneme-based rehabilitation of anomia in aphasia. VA Speech-Language Pathology National Conference. Minneapolis, Minnesota. April 2007.
- 2006 Morelli, C., Kendall, D., Frederiksen, A., Fischler, I., Heilman, K., Altmann, L. Successful Semantic Training in Alzheimer Disease: Effects of Typicality. American Speech and Hearing Conference (ASHA). November 2006.
- AD Rodriguez, DL Kendall, JC Rosenbek, A Riestra, K Womack, & LJG Rothi. Aphasia: No Age Discrimination Here. American Speech and Hearing Conference (ASHA). November 2006.
2006. Nadeau, S. and Kendall, D. Significance and possible mechanisms underlying generalization in aphasia therapy: semantic treatment of anomia. Academy of Aphasia Conference. October 2006.
- Kendall, D., Rosenbek, J., Nadeau, S., Heilman, K., Conway, T., Klenberg, K., Gonzalez Rothi, LJ. Phonologic Rehabilitation of Anomia in Aphasia. Clinical Aphasiology Conference, Belgium, June 2006.
- 2005 Donovan, N.J., Rosenbek, J.C., Musson, N., Velozo, C.A., Young, M.E., Kendall, D.L. Extending Dysarthria Research with a Measure of Communicative Effectiveness. ASHA National Conference, San Diego, CA, November 2005.
- 2004 Ciampitti, MZ, Kendall DK, Merino JG, Haijing Q, Reid K, Rosenbek JC, Womack K, Riestra AR, Silliman SL, Rothi, LJG. Changes over time in the distribution of aphasia after stroke. International Neuropsychological Society, Baltimore, Maryland. February 2004.
- Klenberg, K., Kendall, D., Conway, T., Frakey, L., Leon, S., Rodriguez, A., Rosenbeck, J., Nadeau, S., Gonzalez-Rothi, LG. Phonological Rehabilitation of Anomia in Fluent Aphasia: A Case Study. American Speech-Language Hearing Association, Annual Conference. Philadelphia, PA November 2004
- A Rodriguez, D Kendall, J Rosenbek, S Nadeau, K Heilman, B Holiway, F Singletary, LJG Rothi. Effects of Intensive Semantic Treatment of Anomia in Fluent Aphasia. American Speech-Language Hearing Association, Annual Conference. Philadelphia, PA November 2004
- Nadeau, S., Thompson, C., Kendall, D., Maher, L. Neurally Motivated Behavior Treatments. American Congress of Rehabilitation Medicine – American Society of Neurorehabilitation Joint Conference. PonteVedra Beach, Florida September 2004.
- Kendall, D., Conway, T., Rodriguez, A., Rosenbek, J.C. Gonzalez Rothi, L.J. The Influence of Intensive Phonologic Rehabilitation on Phono-Motor Characteristics. Motor Speech Disorders Conference, Santa Fe, NM. March 2004
- 2003 Rodriguez, A., Kendall, D., Nadeau, S., Rosenbek, J. Semantic Rehabilitation of Anomia: A Single-Case Study. American Speech-Hearing Association. Chicago, IL. November 2003.

- Maher, L.M., Kendall, D.L., Swearingin, J.A., Rodriguez, A., Leon, S., Pingel, K., Holland, A., Gonzalez-Rothi, L.G. Comparison of Constraint Induced Language Therapy and Traditional Therapy in the Rehabilitation of Chronic Aphasia: Preliminary Findings." American Congress of Rehabilitation Medicine. Tuscon, AZ October 2003.
- Kendall, D., Conway, T., Rosenbek, J., Gonzalez-Rothi, L. Phonological Rehabilitation of Acquired Phonologic Alexia. Clinical Aphasiology Conference. Orcas Island, WA. June 2003.
- 2002 Maher, M, Singletary, F., Swearingin, J., Clayton, C., Vincent, L., Moore, A., Wierenga, C., Crosson, B., Kendall, D. Nadeau, S., Gonzalez Rothi, L. Errorless Learning in the Rehabilitation of Sentence Generation in Agrammatism. Baylor/UT Alliance for Physical Medicine and Rehabilitation, First Annual Rehabilitation Research Fair. Houston, Texas. 2002
- A Rodriguez, B Crosson, A Moore, K Richards, M Clayton, R Fuller, D Kendall, LJ Gonzalez-Rothi. Effects of Attention and Intention Treatment on Anomia in a Case of Basal Ganglia Lesion. Third VA Rehabilitation Research and Development National Conference. Washington, D.C. 2002.
- Raymer, A.M., Haley, M.A., Kendall, D. Overgeneralization in Treatment for Severe Apraxia of Speech: A Case Study. Annual meeting of the Motor Speech Disorders & Speech Motor Control. Annual meeting of the Motor Speech Disorders & Speech Motor Control, Virginia. 2002
- 2001 Fuller, R., Heilman, K., Kendall, D., Gonzalez-Rothi, L. Rehabilitation of Naming Deficits in Alzheimer's Disease. American Academy of Neurology. Philadelphia, PA. 2001
- 2000 Roth, H., Liu, L., Kendall, D., Heilman, K. Progressive Oculo-Orofacial Apraxia. American Academy of Neurology, San Diego, CA. 2000
- 1998 Kendall, D., McNeil, M.R., Shaiman, S. & Simonian, M.A. Variability in flaccid dysarthric speech. Motor Speech Disorders Conference, Tuscon, Az.. 1998
- 1997 McNeil, M.R., Doyle, P., Small, S.L., Spencer, K., Goda, A. & Kendall, D. Effects of training multiple form classes on acquisition, generalization and maintenance of word retrieval in a single subject. Clinical Aphasiology Conference, Bigfork, MT. 1997
- Kendall, D., McNeil, M.R., & Small, S.L.. Rule-based treatment for acquired phonological dyslexia. Clinical Aphasiology Conference, Bigfork, MT. 1997
- Small, S.L., Kendall, D., Noll, D.C. Grapheme to phoneme conversion in acquired dyslexia: Neurobiological changes accompany therapy. Academy of Aphasia, Philadelphia, PA. 1997
- 1996 Malcolm, M.R., Doyle, P., Spencer, K., Goda, A. & Kendall, D. (1996). A double-blind, placebo-controlled, pharmacological and behavioral treatment of lexical-semantic deficits in aphasia. Clinical Aphasiology Conference, Providence, RI. 1996
- State
- A Rodriguez, D Kendall, J Rosenbek, S Nadeau, K Heilman, B Holiway, F Singletary, LJG Rothi. Intensive Semantic Treatment of Anomia in Fluent Aphasia: Preliminary Data. American Congress of Rehabilitation Medicine and American Society of Neurorehabilitation Annual Meeting. Ponta Vedra Beach, FL 2005
- Klenberg, K, Kendall, D., Conway, T., Frakey, L., Leon, S., Rodriguez, A., Rosenbeck, J., Nadeau, S., Gonzalez Rothi, J. Phonological Rehabilitation of Anomia in Fluent Aphasia: A Case Study. Florida Speech and Hearing Association. Orlando, Florida. May 2004.

Kendall, D., Phonologic Disorders and Treatment. Florida Society of Neurology, Orlando, Florida. December 2003.

Kendall, D., Treatment of Alexia. Florida Society of Neurology, Orlando, Florida. December 2003.

Kendall, D., Phonologic Rehabilitation of Aphasia. Florida Speech and Hearing Association. Marco Island, FL. May 2003.

Kendall, D., Phonologic Assessment in Aphasia. Florida Society of Neurology, Orlando, Florida. December 2002

Invited Panelist, Organizer or Moderator

National

Chair of Education Committiee. Academy of Neurogenic Communication Disorders. 2007-2008.

Invited Moderator: Effects of Socio-Economic and Environmental Factors on Speech, Language and Hearing. American Speech and Hearing Association Research Symposium. Philadelphia, Pennsylvania. November 2004.

Graduate Student Activity

	Student	Research Topic	Department/University	Completion Date
Post doctoral fellows	JoAnn Silkes, PhD	Implicit processing in aphasia	Speech and Hearing Sciences University of Washington	2009-2012
Chair, PhD Committees	Christina Del Toro	Structure of semantic memory	Communication Sciences and Disorders (CLAS) University of Florida	2010
	Rebecca Pompon	Aphasia	Speech and Hearing Sciences University of Washington	2012
	Lauren Bislick	Apraxia of speech	Speech and Hearing Sciences University of Washington	2013
	Irene Minkina	Aphasia	Speech and Hearing Sciences University of Washington	2014
	Carmel L. Brookshire	Alexia	Speech and Hearing Sciences University of Washington	2015
Member, PhD Committees	Laura Frakey	Visuospatial processing in stroke	Clinical and Health Psychology University of Florida	2004
	Neila Donovan	Communicative effectiveness in individuals with Parkinson's Disease	Rehabilitation Science University of Florida	2004
	Claudia Morelli	Lexical retrieval in individuals with Alzheimer's Disease	Communication Sciences and Disorders University of Florida	2006
	Kay Waid-Ebbs	Developing a measure of functional cognition	Rehabilitation Science University of Florida	2007
	Harrison Jones	Speech motor programming in individuals with Parkinson's Disease	Rehabilitation Science University of Florida	2007
	Yvonne Rogalaski	Aphasia Rehabilitation	Rehabilitation Science University of Florida	2009
	Philip Weir	Speech motor control	Speech and Hearing Sciences University of Washington	2013
Chair, Masters Committees	Lauril Sachet	Accent Modification	Speech and Hearing Sciences University of Washington	2013
	Megan Oelke	Phonomotor rehabilitation of apraxia of speech	Speech and Hearing Sciences University of Washington	2011
	Christa Gray		Speech and Hearing Sciences University of Washington	2011
	Sally Ouimet Waters	Inventory of Cognitive Deficits in Stroke	Communication Sciences and Disorders University of Florida	2010
	Audra McAllen	Speech reaction time as a function of dopaminergic medication in Parkinson's Disease	Speech and Hearing Sciences University of Washington	2010
	Lauren Bislick	Rasch analysis Boston Naming Test	Communication Sciences and Disorders University of Florida	2009
	Megan Ferguson	Modality specific deficits in aphasia	Communication Sciences and Disorders University of Florida	2008
	Jonathan Wilson	Semantic processing in aphasia	Communication Sciences and Disorders University of Florida	2008
	Christina Del Toro	Aphasia Rehabilitation	Communication Sciences and Disorders University of Florida	2006
	Adrianna Hoffmeister	Speech intelligibility in hypokinetic dysarthria	Communication Sciences and Disorders University of Florida	2001
	Courtney Brown	Semantic treatment for anomia in aphasia	Communication Sciences and Disorders University of Florida	2002
	Chair, Undergraduate Honors Projects	Wideline Dorvil	Semantic treatment for anomia in aphasia	Communication Sciences and Disorders University of Florida
Christina Del Toro		Semantic treatment for anomia in aphasia	Communication Sciences and Disorders University of Florida	2004

	Laine Anderson	Test retest reliability of the Standardized Assessment of Phonology in Aphasia	Speech and Hearing Sciences University of Washington	2010
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Membership and Activities in the Profession

Professional Membership

1989 - Present	American Speech-Language Hearing Association
1998 - Present	Florida State Speech-Language Hearing Association
2007 – Present	Academy of Aphasia

Activities in the Profession

1989	American Speech and Hearing Association (ASHA)
2001	Convention Program Committee
2001	Research Symposium Committee. NIH Grant Application entitled “Research Conferences – Communication Sciences & Disorders”
2002	Convention Program Committee
2001	Member: Special Interest Division 2
2001	Archivist, Academy of Neurologic Communication Disorders and Sciences
2002	Primary Reviewer for Research Grants for New Investigators: ASHA Foundation
2007	Primary Review for Special Interest Division 2 ASHA convention abstracts
2007-8	Education Coordinator: Academy of Neurologic Communication Disorders and Sciences
2009	Member at large: Academy of Neurologic Communication Disorders and Sciences
2012	Committee member: Language Disorders in Adults subcommittee for 2013 ASHA convention

KATHERINE R. KRINGS

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krings@uw.edu

EDUCATION

Master of Science. Speech Language Pathology.

University of Washington -- August 2003

Bachelor of Science. Communication Sciences & Disorders/Psychology Minor.

Saint Louis University. Summa Cum Laude-- May 2001

CLINICAL AND TEACHING EXPERIENCE

University of Washington Department of Speech and Hearing Sciences: Clinical Instructor

Full Time Employment. September, 2008-Present

- Clinical Supervision of Graduate Students in Speech-Language Pathology in Pediatric Speech and Language Evaluation and Treatment at the University of Washington Speech and Hearing Clinic
- Public School Internship and Practicum Coordinator
- Instructor for SPHSC 550: Public Schools Speech-Language Pathology and Audiology. This course fulfills the Washington State requirement for 30 hours of instruction for the Educational Staff Associate Certificate
- Instructor for SPHSC 536: Assessment and Intervention for School-Aged Language Disorders. Spring Quarter, 2010.

Seattle Public Schools: Maple Elementary School, Nathan Hale High School, Preschool Assessment Team.

Full Time Employment. August 2003 – August 2008.

- Assessment and Treatment of Variety of Communication Disorders for Preschool-High School Aged Students: Caseload includes students with the following diagnoses: Autism Spectrum Disorders, Down's Syndrome, Fetal Alcohol Syndrome, Fragile X, Attention Deficit Disorder, language based learning disabilities, developmental delay, fluency disorders, articulation and phonological disorders. Caseload includes students from Culturally and Linguistically Diverse Backgrounds.
- Member of Preschool Assessment Team 2005-2008: Role included conducting pediatric speech and language evaluations associated with multiple developmental disabilities as part of an interdisciplinary team (physical/occupational therapy, psychology, nursing, social work), participating in interdisciplinary team meetings and family conferences in order to establish a diagnosis, provide intervention recommendations and community resource information.
- UW Pipeline to the Schools Supervisor: 2005, 2006
- Mentor for first year Speech-Language Pathologists in Seattle Schools: 2005-2006, 2006-2007, 2007-2008
- Clinical Supervisor for UW Practicum Students: 2006-2007, 2007-2008

University of Washington Department of Speech and Hearing Sciences: Part-time Lecturer. July 2007-August 2008

- Developed and taught SPHSC 530 Assessment and Treatment of Adolescent Language Disorders using a Problem-Based Learning model of instruction.
- Created lectures based on adolescents from caseload at Seattle Public Schools, provided text-and article-based assessment, designed clinical report writing assignment, and collaborated with medical SLP for

expanded diversity of case types.

PRESENTATIONS

- **Introduction to the Supervisory Process.** 2 hour CEU/CECH offering at University of Washington, presented annually during Fall Quarter, 2010, 2011, 2012
- **Evidence Based Practice for Assessment and Treatment of Pediatric Language Disorder: Updates, Issues and Realistic Implementation Strategies.** April 20, 2012. 7 hour CEU/CECH offering at Yakima Hearing and Speech Center

PROFESSIONAL ASSOCIATIONS AND POSITIONS

- American Speech and Hearing Association (ASHA)
- Washington Speech Language Hearing Association (WSLHA)
- Washington State Liaison for ASHA Special Interest Group 16: School Based Issues
- Washington State Education Advocacy Leader for Washington Speech Language Hearing Association

RELEVANT PROFESSIONAL DEVELOPMENT

- **Beyond Venting, Rescuing or Giving Up: Reflective Process for Self-Awareness and Balance in Clinical Supervision Workshop with Judith Stone-Goldman, PhD., CCC-SLP (July 30, 2011)**
- **Enhancing Vocabulary Practices for Children: Promoting Academic Language in Clinical Interventions with Laura Justice, PhD. CCC-SLP. (July 28th 2012. ASHA Schools Convention)**
- **Poverty, Homelessness, and Children's Language: Practical Implications for Service Delivery with Celeste Roseberry-McKibbin, PhD. CCC-SLP. (July 28th, 2012. ASHA Schools Convention)**

REFERENCES

Available upon request.

Patricia K. Kuhl

Co-Director, Institute for Learning and Brain Sciences

Director, NSF Science of Learning Center (LIFE)

The Bezos Family Foundation Endowed Chair for Early Childhood Learning



BASIC DATA

Academic Rank: Professor, Department of Speech and Hearing Sciences
Date of Birth: November 5, 1946
Married: Andrew N. Meltzoff

EDUCATIONAL BACKGROUND

<u>Institution</u>	<u>Degree</u>	<u>Dates</u>
St. Cloud State University	B.A. (Psychology)	1964-1967
University of Minnesota	M.A. (Speech Science)	1968-1971
University of Minnesota	Ph.D. (Psychology; Speech)	1971-1973

EMPLOYMENT RECORD

<u>Institution</u>	<u>Position</u>	<u>Dates</u>
Central Institute for the Deaf	Post-doctoral Fellow	1973-1976
University of Washington	Assistant Professor	1977-1979
University of Washington	Associate Professor	1979-1982
University of Washington	Professor (Speech and Hearing)	1982-present

University of Washington	Adjunct Professor (Psychology)	1985-present
University of Washington	Adjunct Professor (Otolaryngology)	1987-present
University of Washington	Adjunct Professor (Neuroscience)	1994-present
University of Washington	Adjunct Professor (Linguistics)	1998-present
University of Washington	Adjunct Professor (Education)	2004-present

PROFESSIONAL OFFICES AND AWARDS

Fellow: Acoustical Society of America

American Psychological Society

American Association for the Advancement of Science

Associate Editor: *Journal of the Acoustical Society of America* (1988-1992), *Journal of Neuroscience* (1989-1995), *Developmental Science* (2000-present)

Research Award: Virginia Merrill Bloedel Scholar, University of Washington, 1992-1994

Neuroscience Affiliate: G. Edelman's Neuroscience Research Group, La Jolla, CA, 1994-2000

Board of Directors: American Institute of Physics, 1994-1996

Board of Directors (Governor Appointed): Washington Technology Center, 1994-1997

Board of Trustees: Neurosciences Research Foundation, Inc., 1994-1999

Vice President: Acoustical Society of America, 1996-1997

Silver Medal: Acoustical Society of America, 1997

Endowed Professorship: William P. and Ruth Gerberding University Professor, 1997- 2005

Faculty Lectureship Award: University of Washington, 1999

American Academy of Arts and Sciences: Elected 1998

President: Acoustical Society of America, 1999-2000

Rodin Academy: Elected 2000

Norwegian Academy of Science and Letters: Elected 2003

International Board of Directors: Nippon Telegraph and Telephone, 2005-present

Research Award: Kenneth Craik Award: University of Cambridge, Cambridge, England, 2005

Alumni Outstanding Achievement Award: University of Minnesota, April 2007

Gold Medal: Acoustical Society of America, Paris, France, July 2008

Endowed Chair for Early Childhood Learning: Bezos Family Foundation, 2009-

National Academy of Sciences: Elected 2010

TED.com presentation: 2011, http://www.ted.com/talks/patricia_kuhl_the_linguistic_genius_of_babies.html

Education Nation: 2011, <http://ilabs.washington.edu/i-labs-news-education-nation-2011>

IPSEN Fondation's Jean-Louis Signoret Neuropsychology Prize: Paris, Nov 29, 2011

Fellow of the Cognitive Science Society: Elected 2011

CURRENT RESEARCH GRANTS

P. K. Kuhl, Principal Investigator

NIH/NICHD (HD 37954)

“Developmental Speech Perception and Brain Plasticity,” 2007-2013.

P. K. Kuhl, Principal Investigator and Director of the LIFE Center

NSF Science of Learning Center Grant

“Center for LIFE (Learning in Informal and Formal Environments),” 2004-2014.

**P. K. Kuhl, Principal Investigator, Project 2
Autism Center of Excellence Grant**

“Linguistic and Social Responses to Speech in Infants at Risk for Autism,” 2007-2013.

PUBLICATIONS

- Martin, R. R., Haroldson, S. K. & **Kuhl, P.** (1972). Disfluencies of young children in two speaking situations. *Journal of Speech and Hearing Research*, 15, 831-836.
- Martin, R. R., **Kuhl, P.** & Haroldson, S. (1972). An experimental treatment with two preschool stuttering children. *Journal of Speech and Hearing Research*, 15, 743-752.
- Speaks, C., Parker, B., Harris, C. & **Kuhl, P.** (1972). Intelligibility of connected discourse. *Journal of Speech and Hearing Research*, 15, 590-602.
- Ingham, R. J., Martin, R. R. & **Kuhl, P.** (1974). Modification and control of rate of speaking by stutterers. *Journal of Speech and Hearing Research*, 17, 489-496.
- Kuhl, P. K.** & Miller, J. D. (1975). Speech perception by the chinchilla: Voiced-voiceless distinction in alveolar plosive consonants. *Science*, 190, 69-72.
- Kuhl, P. K.** (1976). Speech perception in early infancy: The acquisition of speech-sound categories. In S. K. Hirsh, D. H. Eldredge, I. J. Hirsh & S. R. Silverman (Eds.), *Hearing and Davis: Essays Honoring Hallowell Davis* (pp. 265-280). St. Louis: Washington University Press.
- Kuhl, P. K.** (1978). Predispositions for the perception of speech-sound categories: A species-specific phenomenon? In F. D. Minifie & L. L. Lloyd (Eds.), *Communicative and Cognitive Abilities — Early Behavioral Assessment* (pp. 229-255). Baltimore: University Park Press.
- Kuhl, P. K.** & Miller, J. D. (1978). Speech perception by the chinchilla: Identification functions for synthetic VOT stimuli. *Journal of the Acoustical Society of America*, 63, 905-917.
- Sparks, D. W., **Kuhl, P. K.**, Edmonds, A. E. & Gray, G. P. (1978). Investigating the MESA (Multipoint Electrotactile Speech Aid): The transmission of segmental features of speech. *Journal of the Acoustical Society of America*, 63, 246-257.
- Kuhl, P. K.** (1979). Models and mechanisms in speech perception: Species comparisons provide further contributions. *Brain, Behavior and Evolution*, 16, 374-408.
- Kuhl, P. K.** (1979). The perception of speech in early infancy. In N. J. Lass (Ed.), *Speech and Language: Advances In Basic Research and Practice* (pp. 1-47). San Francisco: Academic Press.
- Kuhl, P. K.** (1979). Predispositions for the perception of speech by human infants. In *Proceedings of the Ninth International Congress of Phonetic Sciences, Copenhagen, 1979* (pp. 162-168). Copenhagen: Institute of Phonetics.
- Sparks, D. W., Ardell, L. A., Bourgeois, M., Wiedmer, B. & **Kuhl, P. K.** (1979). Investigating the MESA (Multipoint Electrotactile Speech Aid): The transmission of connected discourse. *Journal of the Acoustical Society of America*, 65, 810-815.
- Kuhl, P. K.** (1979) Speech perception in early infancy: Perceptual constancy for spectrally dissimilar vowel categories. *Journal of the Acoustical Society of America*, 66, 1668-1679.
- Kuhl, P. K.** (1980). Infant speech perception: Reviewing data on auditory category formation. In P. Levinson & C. Sloan (Eds.), *Auditory Processing and Language: Clinical and Research*

Perspectives (pp. 35-59). New York: Grune & Stratton.

- Kuhl, P. K.** (1980). Perceptual constancy for speech-sound categories in early infancy. In G. H. Yeni-Komshian, J. F. Kavanagh & C. A. Ferguson (Eds.), *Child Phonology: Vol. 2. Perception* (pp. 41-66). New York: Academic Press.
- Kuhl, P. K.** (1981). Auditory category formation and developmental speech perception. In R. E. Stark (Ed.), *Language behavior in infancy and early childhood* (pp. 165-183). New York: Elsevier/North-Holland.
- Kuhl, P. K.** (1981). Discrimination of speech by nonhuman animals: Basic auditory sensitivities conducive to the perception of speech-sound categories. *Journal of the Acoustical Society of America*, *70*, 340-349.
- Kuhl, P. K.** (1982). Speech perception: An overview of current issues. In N. J. Lass, L. V. McReynolds, J. L. Northern & D. E. Yoder (Eds.), *Speech, Language, and Hearing: Vol. 1. Normal Processes* (pp. 286-322). Philadelphia: Saunders.
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- Zhang, Y., **Kuhl, P. K.**, Imada, T., Iverson, P., Pruitt, E. B., Kawakatsu, M., Tohkura, Y., & Nemoto, I. (2009). Neural signatures of phonetic learning in adulthood: A magnetoencephalography study. *Neuroimage*, *46*, 226-240.
- Kuhl, P. K.** (2010). Brain mechanisms in early language acquisition. *Neuron*, *67*, 713-727.
- Lebedeva, G. C., & **Kuhl, P. K.** (2010). Sing that tune: Infants' perception of melody and lyrics and the facilitation of phonetic recognition in songs. *Infant Behavior and Development*, *33*, 419-430.
- Raizada, R. D. S., Tsao, F. -M., Liu, H. -M., & **Kuhl, P. K.** (2010). Quantifying the adequacy of neural representations for a cross-language phonetic discrimination task: Prediction of individual differences. *Cerebral Cortex*, *20*, 1-12.
- Raizada, R. D. S., Tsao, F. -M., Liu, H. -M., Holloway, I. D., Ansari, D., & **Kuhl, P. K.** (2010). Linking brain-wide multivoxel activation patterns to behaviour: Examples from language and math. *NeuroImage*, *51*, 462-471.
- Conboy, B. T., & **Kuhl, P. K.** (2011). Impact of second-language experience in infancy: Brain measures of first- and second-language speech perception. *Developmental Science*, *14*, 242-248.
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- Kuhl, P. K.** (2011). Early language learning and literacy: Neuroscience implications for education. *Mind, Brain, and Education*, *5*, 128–142. Article first published online: 10 AUG 2011, DOI: 10.1111/j.1751-228X.2011.01121.
- Kuhl, P. K.** (2011). Social mechanisms in early language acquisition: Understanding integrated brain systems supporting language. In J. Decety & J. Cacioppo (Eds.), *The Oxford handbook of social neuroscience* (pp. 649-667). Oxford UK: Oxford University Press.
- Kuhl, P. K.** (2011). Who's talking? *Science*, *29*, 529-530.

- Garcia-Sierra, A., Rivera-Gaxiola, M., Conboy, B. T., Romo, H., Percaccio, C. R., Klarman, L., Ortiz, S., & **Kuhl, P. K.** (2011). Bilingual language learning: An ERP study relating early brain responses to speech, language input, and later word production. *Journal of Phonetics*, *39*, 546-557.
- Lin, J.-F. L., Imada, T., & **Kuhl, P. K.** (2011). Mental addition in bilinguals: an fMRI study of task-related and performance-related activation. *Cerebral Cortex*, *22*, 1851-1861.
- Kuhl, P. K.** (2011). Brain mechanisms underlying the critical period for language: Linking theory and practice, in A. M. Bhatto, S. Dehaene, & W. J. Singer (Eds.), *Human neuroplasticity and education* (pp. 33-59). The Pontifical Academy of Sciences: Vatican City.
- Rivera-Gaxiola, M., Garcia-Sierra, A., Lara-Ayala, L., Cadena, C., Jackson-Maldonado, D., & **Kuhl, P. K.** (2012). Event-related potentials to an English/Spanish syllabic contrast in Mexican 10-13 month-old infants. *ISRN Neurology*, *2012*. doi:10.5402/2012/702986
- Kuhl, P. K.** & Damasio, A. (2012). Language, in E. R. Kandel, J. H. Schwartz, T. M. Jessell, S. Siegelbaum, & J. Hudspeth (Eds.), *Principles of neural science: 5th Edition* (pp. 1353-1372). New York: McGraw Hill.
- Moon, C., Lagercrantz, H., & **Kuhl, P. K.** (2012). Language experienced *in utero* affects vowel perception after birth: a two-country study, *Acta Paediatrica*, *102*, 156-160.
- Ramirez-Esparza, N., Reder, S., Harris, K., Hellermann, J., Richards, C., & **Kuhl, P. K.** (2012). Socio-interactive practices and personality in adult learners of English with little formal education. *Language Learning*, *62*, 541-570.
- Can, D. C., Richards, T. L., & **Kuhl, P. K.** (2013). Early gray-matter and white-matter concentration in infancy predict later language skills: A whole-brain voxel-based morphometry study. *Brain & Language*, *124*, 34-44.
- Ramírez-Esparza, N., García-Sierra, A., & **Kuhl, P. K.** (under revision). Look who's talking: Social context is linked to infants' speech development.
- Conboy, B. T., Brooks, R., Meltzoff, A. M., & **Kuhl, P. K.** (under revision). A role for social interaction in infants' learning of second-language phonetics.
- Kuhl, P. K.**, Coffey-Corina, S., Padden, D., Munson, J., Estes, A., & Dawson, G. (under revision). Brain responses to words in 2-year-olds with autism predict developmental outcomes at age 6.
- Bosseler, A. N., Taulu, S., Pihko, E., Mäkelä, J. P., Imada, T., Ahonen, A., & **Kuhl, P. K.** (submitted). Theta brain rhythms index perceptual narrowing in infant speech perception.
- Sundara, M., Ward, N., Conboy, B., & **Kuhl, P. K.** (submitted). Listening to Spanish for 5 hours alters infant babbling in response to Spanish (but not English).

INVITED ADDRESSES

(Since 2000)

“Brain and Language: Reinterpreting the ‘Critical Period,’” Neuroscience Research Institute, La Jolla, CA, March, 2000.

“Born to Learn: Language and the Brain of the Baby,” *The Felix Santschi Lecture*, University of Zurich, Zurich, April, 2000.

“Early Experience and Language Development: Reinterpreting ‘Critical Periods,’” *National Academy of Science Colloquium*, Auditory Neuroscience, Irvine, CA, May, 2000.

“Language, Emotion, and the Human Brain,” *New York Academy of Sciences Conference, Unity of Knowledge: The Convergence of Natural and Human Science*, Rockefeller University, New York, NY, June, 2000.

“Plasticity for Learning: Language and the Brain,” *Keynote Address, Cold Spring Harbor Conference, Neuronal Plasticity*, Cold Spring Harbor, NY, September, 2000.

“Brain Plasticity and the ‘Critical Period,’” *Keynote Address, Neuroscience Symposium, Plasticity and Learning*, New Orleans, LA, October, 2000.

“Frontiers of Auditory Neuroscience: Language and the Brain,” *Symposium on New Frontiers in Hearing*, St. Louis, MO, March, 2001.

“Language/Culture/Mind/Brain: Progress at the Margins Between Disciplines,” *Kerry P. Green Memorial Address*, Tucson, AZ, May, 2001.

“Reinterpreting the Critical Period: Language Acquisition,” *Keynote Address, Gordon Research Conference on Neural Plasticity*, Newport, RI, July, 2001.

“Born to Learn: Language, Reading, and the Brain of the Child,” *White House Summit on Early Childhood Cognitive Development: Ready to Read; Ready to Learn*, Washington, D.C., July, 2001.

“The Secret Life of the Brain: Early Development,” *Smithsonian Museum Series on The Secret Life of the Brain*, Washington, D.C., November, 2001.

“Auditory Neuroscience: Language and the Brain,” *The Richard Silverman Lecture*, Washington University, St. Louis, MO, December, 2001.

“Language and the Brain: New Methods and Theory,” *NIH Keynote Address, Language and the Brain*, April, 2002.

“Reinterpreting the ‘Critical Period’ for Language,” *Neuronal Function Research Group, International Workshop on Sensory Systems Plasticity*, RIKEN, Japan, May, 2002.

- "The Infant Brain: How Do We Know What's Going on Up There?" *Rockefeller University Annual Luncheon Honoring Women and Science*, New York, NY, May, 2002.
- "Early Learning, Language, and the Infant Brain," *Rockefeller University Neuroscience Colloquium Series*, New York, NY, May, 2002.
- "Reinterpreting the 'Critical Period' for Language," *Neuronal Function Research Group, International Workshop on Sensory Systems Plasticity*, RIKEN, Japan, May, 2002.
- "Born to Learn: Language, Reading, and the Brain of the Child," *White House Summit on Early Cognitive Development: Eight Northwestern States*, Boise, ID, June, 2002.
- "Reevaluating the Critical Period Hypothesis: Early Language Learning," *Meeting of the Human Frontiers Science Program*, G-7 Nations, Ottawa, June, 2002.
- "Babies at Work: The Scientist in the Crib," *Mead-Johnson Scholars Keynote Address*, Williamsburg, VA, September, 2002.
- "The Brain: The Incredible Learning Machine," *University of Washington Alumni Association Fall Lecture Series, The Art & Science of the Brain*, Seattle, WA, October, 2002.
- "Language and the Baby Brain," *AAAS Symposium: What Infants Can't Miss*, Denver, CO, February, 2003.
- "Infant Learning: Scientist in the Crib," *Keynote Speaker, 10th Anniversary of the Neuroscience Program*, University of Texas, Houston, TX, March, 2003.
- "Language Acquisition: How the Mind Works," *Dartmouth Lecture Series on The Mind*, Hanover, NH, May, 2003.
- "Born to Learn: Language, Learning, and the Child's Brain," *White House Conference on Early Learning*, Denver, CO, May, 2003.
- "Reinterpreting the 'Critical Period' in Development," *Riken Brain Institute Conference, Nurturing the Brain*, Tokyo, August, 2003.
- "Wiring the Baby Brain for Language: Statistical and Social Learning," *Washington University Sesquicentennial Celebration Keynote*, St. Louis, MO, October, 2003.
- "Language, Reading, and the Developing Brain," *The Norman Geschwind Memorial Lecture, Meeting of the International Dyslexia Association*, San Diego, CA, November, 2003.
- "Language and the Infant Brain: Computation with Constraints," *Keynote Address, Institute of Electrical and Electronics Engineers, Inc. (IEEE)*, St. Thomas, December, 2003.
- "Language Input Maps the Baby Brain," *AAAS Symposium, Wiring the Baby Brain for Language*, Seattle, WA, February, 2004.

- "Cues for a Lifetime of Perception," *AAAS Symposium, Cues for Language Acquisition*, Seattle, WA, February, 2004.
- "Infant Speech Perception and Early Literacy," *Keynote Speaker, Boston University School of Medicine Conference on Literacy*, San Francisco, CA, April, 2004.
- "Babies, Brains and How We Help Them Learn: The Scientist in the Crib," *Pathways Lecture Series, Sponsored by Children's Hospital*, Seattle, WA, May, 2004.
- "Advances in Neuroscience: Language and the Infant Brain," *National Governors Association Meeting*, Seattle, WA, July, 2004.
- "Language and the Infant Brain: Computational Strategies and Social Influences," *RIKEN-MIT Systems Neuroscience Symposium*, Cambridge, MA, September, 2004.
- "The Scientist in the Crib," *ARCS Annual Awards Luncheon Speaker*, Seattle, WA, November, 2004.
- "Bridging the Gap between Neuroscience and Education," *The Society for Neuroscience K-12 Science Teachers Workshop*, The Salk Institute, San Diego, CA, November, 2004.
- "Language and the Infant Brain: Computation with Constraints," *Special Lecture, The Society for Neuroscience*, San Diego, CA, November, 2004.
- "Language Development: Computation and the Social Brain," *Keynote Speaker, Inaugural Celebration for the Language Learning and Development Journal*, Boston, MA, November, 2004.
- "Language and the Infant Brain," *University of Texas at San Antonio Education Colloquium*, San Antonio, TX, January, 2005.
- "The Scientist in the Crib: Infant Learning and the Brain," *New York Academy of Medicine*, New York, NY, March, 2005.
- "The Infant Brain: How Infants Learn and Why It Matters," *Washington State House Appropriations Committee*, Olympia, WA, March, 2005.
- "Language and the Infant Brain: A Glimpse at How the Mind Develops," *Inaugural Lecture, Georgetown University Neuroscience Program*, Washington, DC, March, 2005.
- "Language and the Infant Brain: The Scientist in the Crib," *Keynote Speaker, John Merck Scholars 15th Anniversary*, New York Academy of Sciences, April, 2004.
- "Language and the Brain: A Glimpse at the Infant Mind," *Infant and Early Childhood Conference (IECC)*, Bellevue, WA, May, 2005.
- "Early Learning and the Brain: Lessons from Language Learning," *Keynote Speaker, Washington Learns Summit, Governor Christine Gregoire's Summit on Learning in 0-5, K-12, and Higher Education*, June, 2005.
- "Breakthroughs in Early Learning: Advances in Science, Economics and State Policy," *Keynote Speaker*,

- National Conference of State Legislatures (NCSL) meeting, Seattle, WA, August, 2005.*
- “Infant Language Learning: Computation with Constraints,” NIH and the Merrill Advanced Studies Center Conference on Language Acquisition, Infant Pathways to Language: Methods, Models, and Research Directions, Tempe, AZ, September, 2005.*
- “The Scientist in the Crib: Computational Learning for Language in Infancy,” Kenneth Craik Research Award, University of Cambridge, Cambridge, England, November, 2005.*
- “The Scientist in the Crib: Language and the Infant Brain,” Keynote Address, Neuhaus Education Center 20th Anniversary, Houston, TX, March, 2006.*
- “Bridging Neuroscience and Education: Examples from Language,” Invited Speech to Governor Gregoire and the Washington Learns Steering Committee, Seattle, WA, April, 2006.*
- “Early Speech Perception and Later Language Abilities: Implications for Theory and Practice,” Keynote Address, Harvard University and the Dana Foundation’s Brain Awareness Week, Cambridge, MA, May, 2006.*
- “Language and the Infant Brain: Bridges from Neuroscience to Education,” Keynote Address, The Tenth International Conference on Cognitive and Neural Systems, Boston, MA, May, 2006.*
- “Language and the Infant Brain: Implications for the ‘Critical Period,’” Invited Speaker, Nobel Foundation Conference, Nurturing the Brain of the Child, Stockholm, May, 2006.*
- “Language and the Infant Brain: The Scientist in the Crib,” Scientific Briefing, Swedish Parliament, Stockholm, May, 2006.*
- “Language, Education, and Society,” Invited Speaker, Annual Awards Luncheon, Swedish Science Reporters, Stockholm, May, 2006.*
- “The New Science of Learning,” Invited Address, Governor’s Committee, Washington Learns, Seattle, WA, May, 2006.*
- “New Brain Imaging Tools for Young Children,” NBC Nightly News with Brian Williams, Filmed interview, September, 2006.*
- “From Synapse to Schoolroom—The Science of Learning,” Invited Symposium Speaker, The NSF Science of Learning Center Satellite Symposium, Society for Neuroscience, October, 2006.*
- “Language as Human Specialization,” Invited Speaker, National Academy of Sciences Sackler Colloquium, Irvine, CA, November, 2006.*
- “Speech Perception: Development from General Mechanisms to Modules,” Invited Symposium Speaker, Acoustical Society of America Conference, Honolulu, HI, December, 2006.*
- “Early Learning and the Brain,” Invited presentation to the Washington State Legislature’s Appropriations Committee, Olympia, WA, January, 2007.*

- "The Bilingual Brain," *NBC Nightly News with Brian Williams*, Filmed interview, January, 2007.
- "Early Learning Research in Washington State," *Briefing for U.S. Senator Patty Murray*, Seattle, WA, February, 2007.
- "Language, Bilingualism, Neuroscience and Education," *Keynote speaker, International Symposium on the Human Brain and Early Education*, Santiago, Chile, March, 2007.
- "Linking Speech Perception in Infancy to Language Acquisition: Early Phonetic Learning Predicts Later Language," *Invited Symposium Speaker, Society for Research on Child Development*, Boston, MA, March, 2007.
- "Neural Commitment to Language: Implications for Dyslexia," *Keynote, International Dyslexia Association Conference, From Research to Practice*, Newport Beach, CA, March, 2007.
- "Early Language Learning and the Brain: Implications for Education," *Invited Symposium Speaker, American Educational Research Association*, Chicago, IL, April, 2007.
- "Language, the Bilingual Brain, Education and Society," *University of Minnesota Alumni Outstanding Achievement Award Address*, Minneapolis, MN, April, 2007.
- "Early Learning, the Brain, and Society," *UW Provost's Distinguished Lecture*, Seattle, WA, April, 2007.
- "Babies and Brains: Truths, Myths, and Politics," *Invited Speaker, Pathways Lecture Series sponsored by Parent Map*, Seattle, WA, April, 2007.
- "Language Learning and the 'Social Brain': Implications for Children with Autism," *Keynote Address, International Meeting For Autism Research*, Seattle, WA, May, 2007.
- "Language as a Challenge for Robotics and Engineering," *Keynote Address, NSF conference, Future Challenges in Engineering and Learning*, Washington, DC, July, 2007.
- "Neuroplasticity for Language in Infancy," *NSF conference, Opportunities and Challenges for Language Learning and Education*, Washington, DC, September, 2007.
- "Language, Bilingualism, and the Infant Brain," *University of Helsinki Conference, Developing Brain, Emerging Mind*, Helsinki, September, 2007.
- "Language as a Human Specialization," *NSF conference, Neuroscience and Education*, Washington, DC, December, 2007.
- "Cracking the Speech Code: Language and the Infant Brain," *CNBC Lecture Series*, Carnegie Mellon University, Pittsburg, PA, January, 2008.
- "Language and the Baby Brain," *American Association for the Advancement of Science Symposium, Brain Basis of Speech*, Boston, MA, February, 2008.
- "It's Not Just Talk: How the Child's Brain Maps Language," *Parents & Science Lecture*, The Rockefeller University, New York, NY, April, 2008.

- “Language, Bilingualism, and the Infant Brain,” *Maclyn McCarty Memorial Lecture*, The Rockefeller University, New York, NY, April, 2008.
- “The Scientist in the Crib: Early Learning and the Brain,” *McKnight Conference on Neuroscience Special Lecture*, Aspen, CO, June, 2008.
- “Cracking the Speech Code,” *Nobel Symposium, Genes, Brain, and Behavior*, Stockholm, June, 2008.
- “Dawn of the Enlightened Brain - The Scientist in the Crib,” *Shedding Light on Infant Brain Function Workshop*, Stockholm, June, 2008.
- “How Children Learn: Can (Should) We Try to Improve it?” *How Can We Improve Our Brains?* Cold Spring Harbor, NY, September, 2008.
- “Exploring the Infant Brain with MEG,” *Neurospin Opening Keynote, MEG: New Images of Brain Dynamics*, Paris, December, 2008.
- “Aesthetics and the Infant Mind,” *Special Lecture, Evolutionary Origins of Art and Aesthetics*, Salk Institute, San Diego, CA, March, 2009.
- “Minds, Brains, and Early Learning: How Infants Crack the Speech Code,” *Plenary given at the Second Biennial Conference of the Mind, Brain, and Education Society*, Philadelphia, PA, May, 2009.
- “Why Learning to Read is More Complicated Than You Think,” *Discussion led at the Aspen Ideas Festival*, Aspen, CO, July, 2009.
- “What’s the Brain Got to Do with It?” *Tutor session given at the Aspen Ideas Festival*, Aspen, CO, July, 2009.
- “Being Human in a Digital World,” *Live from the Aspen Ideas Festival: The Brian Lehrer Show*, July, 2009. Podcast: <http://www.wnyc.org/shows/bl/episodes/2009/07/03/segments/135728>
- “Neuroscience to Education: Bridging Early Learning to Language and Literacy,” *Punahou and Hanalei Schools*, Honolulu, HI, September, 2009.
- “Fostering Early Brain Development: Windows of Opportunity for Learning,” *Keynote Lecture to the Swedish Academy of Medicine*, Stockholm, October, 2009.
- “Early Language Markers of Children at Risk for Autism Spectrum Disorders,” *Keynote Address to the Department of Neonatology at Stockholm’s Astrid Lindgren Children’s Hospital*, Stockholm, October, 2009.
- “The Science of Early Childhood Development and the Impact of Adversity,” *Applying the Science of Early Childhood Development to State Policy*, Seattle, WA, January, 2010.
- “Charlie Rose Brain Series Episode Five: The Developing Brain,” *The Charlie Rose Show*, New York, February, 2010. Video: <http://www.charlierose.com/view/interview/10877>

- “Cracking the Speech Code: Language and the Infant Brain,” *Twelfth Annual Benjamin & Anne A. Pinkel Endowed Lecture on Mind/Brain Paradigms*, University of Pennsylvania, Philadelphia, PA, April, 2010.
- “The New Science of Learning: What’s the Brain Have to Do With It?” *Presidential Session, American Educational Research Association Annual Meeting*, Denver, CO, May, 2010.
- “Cracking the Speech Code: Language and the Infant Brain,” *Merck Neurosciences Seminar Series, Neurosciences Graduate Program*, University of California, San Diego, La Jolla, CA, May, 2010.
- “Minds, Brains & Early Learning: How Infants Crack the Speech Code,” *Keynote for Living, Learning, and the Brain Conference*, Genesee School District, Flint, MI, June, 2010.
- “Minds, Brains & Early Learning: How Infants Crack the Speech Code,” *Association for Library Service to Children Charlemae Rollins President’s Program*, American Library Association Annual Conference, Washington, DC, June, 2010.
- “Minds, Brains & Early Learning: How Young Children Crack the Speech Code,” *Early Learning in Missouri: Where Bright Futures Begin*, 49th Annual Cooperative Conference for School Administrators, Osage Beach, MO, August, 2010.
- “How Infants Crack the Speech Code: Exploring Minds in the Making Using the Tools of Modern Neuroscience,” *2010 Freshman Convocation Keynote*, University of Alaska Anchorage, Anchorage, AK, August 2010.
- “Learning and the ‘Social Brain’,” *National Science Foundation Distinguished Lecture, Directorate for Social, Behavioral & Economic Sciences*, Washington, DC, October, 2010.
- “How Infants Crack the Speech Code: Exploring the Infant Mind Using the Tools of Modern Neuroscience,” *Working Group on Human Neuroplasticity and Education*, The Pontifical Academy of Sciences, Vatican City, Italy, October, 2010.
- “The Linguistic Genius of Babies: Early Learning and the Brain,” *Public Talk for the Opening Ceremony of the Division of Brain Science and Educational Research*, Key State Laboratory, Beijing Normal University, Beijing, China, May, 2011.
- “How Infants Crack the Speech Code: Exploring the Infant Mind Using the Tools of Modern Neuroscience,” *First International Workshop on Brain, Cognition, and Learning*, Beijing, China, May, 2011.
- “Talking to the Media: Lessons in Crossing the Great Divide,” *Invited Presentation, 161st Meeting of the Acoustical Society of America*, Seattle, WA, May, 2011.
- “How Children Learn: ‘Windows of Opportunity’ for the Young Brain,” *Keynote Address at the Third Annual Starting Strong P-3 Institute*, Spokane, WA, August, 2011.
- “Babies, Brains, and Learning,” *Session Leader, Science Foo Camp*, Googleplex, Mountain View, CA, August, 2011.

“A Visual Tour Through the Baby Brain: Why the First 2000 Days Matter,” *Launching of Education Nation at Rockefeller Plaza*, New York, NY, September, 2011.

“The Mind of the Child: What Neuroscience Reveals About Brains, Learning, and Language,” *IPSEN Award Lecture*, Paris, November, 2011.

“Exploring the Social Foundations of Learning Through Neuroscience, Technology, and Education,” *Presentation at OECD (Organization for Economic Cooperation and Development)*, Paris, January, 2012.

“The First Stages of First and Second Language Acquisition: What Neuroscience Reveals About Mechanisms of Learning,” Invited Presentation, *Collège de France*, Paris, January, 2012.

“Early Language and Brain Development,” *Neuroscience and Education Workshop*, NeuroSpin Institute, Paris, January, 2012.

“Bilingual Language Learning, Cognitive Flexibility, and the Future of Education,” *Keynote Address for Early Childhood: Collaborating for Success*, Illinois Resource Center, Bloomington, Illinois, March, 2012.

“The Linguistic Genius of Infants: Early Learning and Brain Plasticity: Lecture 1,” *Distinguished Lecturer, 2012: Mind, Brain, Behavior Interfaculty Initiative*, Harvard University, Cambridge, April, 2012.

“The Infant Brain: Using Neuroscience Tools to Measure Neurolearning: Lecture 2,” *Distinguished Lecturer, 2012: Mind, Brain, Behavior Interfaculty Initiative*, Harvard University, Cambridge, April, 2012.

“Using MEG to Explore Developmental Change in Speech Processing” *MEG: Applications to Cognitive Neuroscience*, The 2012 McGovern Institute Symposium, Massachusetts Institute of Technology, Cambridge, April, 2012.

“Humans’ Capacity for Language: NeuroLearning,” *Seattle Brain Salon*, University of Washington I-LABS and Allen Institute for Brain Science, Seattle, April, 2012.

“Language Learning and the Developing Brain: Cross-cultural Studies Unravel the Effects of Biology and Culture,” *Keynote Lecture, 161st Meeting of the Acoustical Society of America*, Hong Kong, May, 2012.

“The Mind of the Child: What Neuroscience Reveals about Baby Brains and Learning,” Public Lecture, *Chinese University of Hong Kong*, Hong Kong, May, 2012.

“The Genius of Bilingual Babies and Children,” Invited Speaker, *International Conference on Bilingualism and Comparative Linguistics*, Chinese University of Hong Kong, Hong Kong, May, 2012.

“A Child’s First 2000 Days: What’s the Brain Got to Do With It?” Featured Speaker, *Aspen Ideas Festival*, Aspen, June, 2012.

“Early Language Experience and Brain Development: Paving the Path to School,” *Keynote Address for First Things First*, Arizona Early Childhood Development and Health Board, Phoenix, Arizona,

August, 2012.

“Dual Language: Geddes and the Science of Child Development,” Expert Panelist, *NBC Education Nation Summit 2012*, September, 2012.

“The Buzz on Brains and Babies: How and Why Do the Earliest Years Matter?” Session Speaker, *Aspen ThinkXChange*, Aspen, October, 2012.

“Human Language Development: Using Brain Measures to Advance Theory,” Plenary Address, Boston University Conference on Language Development, Boston, November, 2012.

Curriculum Vitae

Adrian KC Lee

Education

1998 – 2002	University of New South Wales (1 st class honor)	BEng	Electrical Engineering
2003 – 2007	Harvard-MIT Division of Health Sciences and Technology & Tech.	ScD	Health Sciences

Professional Experience

2002	Visiting Scholar, The Bionic Ear Institute, Melbourne, Australia
2003	Research Assistant, Elec. Eng. & Telecommunications, UNSW, Sydney, Australia
2003 – 2007	Research Assistant, Cognitive and Neural Systems, Boston University
2005	Visiting Scholar, Medical Research Council Cognition and Brain Sciences Unit, Cambridge, UK
2007 – 2010	Research Associate, Cognitive and Neural Systems, Boston University
2007 – 2009	Research Fellow, Department of Psychiatry, Harvard Medical School & Mass. General Hospital
2009 – 2010	Research Fellow, Department of Radiology, Harvard Medical School & Mass. General Hospital
2009 – 2010	Director of Boston Area Machine-Brain Interface consortium, NSF-CELEST, Boston University
2011 –	Assistant Professor of Speech & Hearing Sciences, University of Washington
2011 –	Assistant Professor, Institute for Learning & Brain Sciences, University of Washington
2011 –	Adjunct Professor of Electrical Engineering, University of Washington
2011 –	Faculty member, Graduate Program in Neurobiology & Behavior, University of Washington
2011 –	Faculty member, NSF Engineering Research Center for Sensorimotor Neural Engineering, UW
2011 –	Affiliate Faculty, Virginia Merrill Bloedel Hearing Research Center, University of Washington
2011 –	Visiting Faculty, Harvard-MIT Martinos Center for Biomedical Imaging, Charlestown, MA
2012 –	Affiliate Faculty, Computational Neuroscience Training Program, University of Washington

Honors & Awards

1998 – 2002	Academic Excellence and Co-op Scholarship University of New South Wales, Australia
2007	Association for Research in Otolaryngology Graduate Student Travel Award
2007	Advanced Multimodal Neuroimaging Training Program fellowship, Martinos Center for Biomedical Imaging, Charlestown, MA
2008	Postdoctoral Fellowship Award, Mass. General Hospital Fund for Medical Discovery, Boston, MA
2009	National Institutes of Health Pathway to Independence Award (NIDCD: K99/R00)
2011	Seed grant from Center for Sensorimotor Neural Engineering from NSF. (Title: Novel auditory BCI design; PI: Eric Larson; Mentor: Adrian KC Lee)
2012	Department of Defense, Air Force Office of Scientific Research Young Investigator Program award

2012 The Royal Society International Exchanges program award, United Kingdom

Service

2002 Industry Liaison Officer, School of Elec. Eng. & Telecommunications, UNSW, Australia
2004 – 2005 Member, Distinguished Lecture Series Organization Committee, Harvard-MIT HST
2004 – 2006 Member, Graduate Admission Committee, Harvard-MIT HST
2008 – 2010 Founding Member, Student, Postdoctoral and Medical trainees Steering Committee, Association for Research in Otolaryngology (ARO – spARO)
2008 – 2009 spARO representative, ARO Long Range Planning Committee
2010 spARO representative, ARO Government Relations Committee
2011 – present Member, ARO External Relations Committee
2009 – 2010 Organizer, “Brain Mapping” seminar, Harvard-MIT Martinos Center for Biomedical Imaging
2009 – 2010 Co-founder, “Why.N.How” tutorial series, Harvard-MIT Martinos Center for Biomedical Imaging
2013 Member, Organizing Committee, OHBM 2013, Seattle
2013 – 2016 Technical committee member, Acoustical Society of America—Psychological and Physiological Acoustics
2008 – Ad hoc journal reviewer, *Proceedings of the National Academy of Sciences of USA (PNAS)*; *Neuron*; *Journal of the Acoustical Society of America*; *JARO - Journal of the Association for Research in Otolaryngology*; *The Journal of Neuroscience*; *PLOS ONE*; *Proceedings of the IEEE (Signal Processing)*; *Journal of Experimental Psychology: Human Perception and Performance*; *Ear and Hearing*; *Hearing Research*; *Journal of Computer Science and Technology*; *Neuropsychiatric Disease and Treatment*; *Brain Research*; *5th International Brain-Computer Interface Conference, Graz, Austria, Sept 22-24, 2011*.
Journal reviewer: *Ear and Hearing*, *Frontiers in Brain Imaging Methods*
Ad hoc grant reviewer: Air Force Office of Scientific Research

Mentorship / Preceptorship / Thesis Supervisory / Committee

Postdoctoral fellows

01/11 – present Eric D Larson, PhD in *Biomedical Engineering (Boston University)*
06/11 – present Ross Maddox, PhD in *Biomedical Engineering (Boston University)*

University of Washington Doctoral Supervisory / Thesis Committee / Project supervisor

08/11 – present Elliot Saba, *Electrical Engineering*. Role: Thesis supervisor
03/11 – present Brian J King, *Electrical Engineering*. Role: Graduate School Representative
05/11 – present Xing Li, *Electrical Engineering*. Role: Graduate School Representative
03/11 – present Susan A McLaughlin, *Speech and Hearing Sciences*. Role: Reader
04/12 – present John Howe, *Psychology*. Role: Reader
10/12 – present Christina Zhao, *Speech & Hearing Sciences*. Role: PhD General Exam committee member
09/12 – present Mark Wronkiewicz, *NEUBEH*. Role: Lab rotation preceptor

Other graduate students

07/09 – present Siddharth Rajaram at *Boston University Hearing Research Center*
07/10 – present Hari Bharadwaj at *Department of Biomedical Engineering, Boston University*
09/12 – present Golbarg Mehraei at *Harvard-MIT Division of Health Sciences and Technology, Speech & Hearing Biosciences & Technology Program*.

University of Washington undergraduate students

03/11 – 08/11 Hye In Kim at *Computer Science & Engineering (Year 4)*
07/11 – 05/12 Ka Young Lee at *Speech and Hearing Sciences (Year 4)*
09/11 – present Jonathan Mount at *Bioengineering (Year 2; NSF-REU student from UW-CSNE, summer 2012)*
06/12 – 08/12 Derek Nhan at *Neurobiology (Year 4)*
06/12 – present Michelle Drews at *Neurobiology (Year 4)*

09/12 – present Christa Dodson at *Speech and Hearing Sciences (Year 4)*

Serving as preceptors in the following NIH teaching grants:

T32DC005361: Auditory Neuroscience Training Grant (PI: Ellen Covey)

T32DC000018: Research Training in Otolaryngology (PI: Edwin Rubel)

T32DC000033: Research Training in Speech and Hearing Sciences (PI: Lynne Werner)

T90DA032436: Computing and the Brain: Training the next generation of neuroscientists (PI: Adrienne Fairhall)

University of Washington Departmental Committees

2012 Neurobiology & Behavior Admission Committee

Other professional mentorship

07/12 Invited Faculty at Telluride Neuromorphic Cognition Engineering Workshop, Telluride, Colorado

Conference Organization

Organizer and co-chair, symposium on “The Auditory Brain beyond A1,” 34th Mid-Winter Meeting of the ARO, Baltimore, USA, February 19-23, 2011.

Co-organizer, “Encoding for Auditory Representations Workshop,” University of Washington, Aug 22-23, 2011.

Organizer, special session on “Investigating the Cortical Involvement in Auditory Perception and Cognition using different Neuroimaging Techniques,” Acoustics 2012, Hong Kong, May 13-18 2012.

Member of the Local Organizing Committee, Organization for Human Brain Mapping, Seattle, June 16-20, 2013.

Invited Talks

[T1] EAR Institute, University College London, London, UK, November 15, 2004.

[T2] Research in progress – interdisciplinary dialogues @ MIT, Cambridge, USA, April 14, 2006.

[T3] Hearing Research Center, Boston University, October 12, 2007.

[T4] Center for Biodynamics, Boston University, May 27, 2009.

[T5] Institute for Learning and Brain Sciences, University of Washington, March 17, 2010.

[T6] Multimodal Imaging Laboratory, Departments of Neurosciences and Radiology, UCSD, June 21, 2010.

[T7] NSF-CELEST Workshop on the Hardware and Software of Functional Connections, Boston University, October 22, 2010.

[T8] Workshop: Research Techniques & Approaches, 34th Mid-Winter Meeting of the Association for Research in Otolaryngology, Baltimore, USA, February 19-23, 2011.

[T9] Session co-chair: “The Auditory Brain Beyond A1,” 34th Mid-Winter Meeting of the Association for Research in Otolaryngology, Baltimore, USA, February 19-23, 2011.

[T10] Osaka-UW Joint Workshop on Cognitive Robotics and Brain-Computer Interfaces, Seattle, USA, March 17-18, 2011.

[T11] UW Linguistics Colloquium, Seattle, USA, May 6, 2011.

[T12] Virginia Merrill Bloedel Hearing Research Center Board of Trustees meeting, Seattle, USA, July 8, 2011.

[T13] Queensland Brain Institute, University of Queensland, Australia, as part of the NSF-Australian Science of Learning meeting and the Symposium on Attention and Learning, July 20-21, 2011.

[T14] EAR Institute external seminar series, University College London, London, UK, September 16, 2011.

[T15] Oxford Auditory Neuroscience Group, University of Oxford, UK, September 19, 2011.

[T16] Audiology and Speech Center, Walter Reed National Military Medical Center, November 10, 2011.

[T17] Neuroscience Department Seminar, University of Connecticut Health Center, November 22, 2011.

[T18] Session co-chair: "Cortical Neuroimaging Techniques in Auditory Perception and Cognition," The Acoustics 2012 Hong Kong, Hong Kong SAR, China, May 13-18, 2012.

[T19] NeuroTalk 2012, Beijing, China, May 18-20, 2012.

[T20] Microsoft Research, Redmond, June 12, 2012.

[T21] 18th International Conference on Biomagnetism, Paris, August 26-30, 2012.

[T22] NW Auditory and Vestibular Research Meeting, Oregon Health & Science University, Portland, October 26, 2012.

Invited Articles

- [I1] Lee, AKC, (2012). "Brain attending a cocktail party: A special session discussing cortical neuroimaging techniques," *Acoustical Society of America ECHOES*, **22**(4): 4-5.
- [I2] Lee, AKC, M Drews, RK Maddox, E Larson (2013). "Brain Imaging, Neural Engineering Research, and Next-Generation Hearing Aid Design," *Audiology Today*, **25**(1): 40-47.

Journal Articles

- [J1] Shinn-Cunningham, BG, AKC Lee, AJ Oxenham (2007). "Auditory non-allocation of a sound element lost in perceptual competition," *Proceedings of the National Academy of Science*, **104** (29): 12223-12227. PMC1924568
- [J2] Lee, AKC, S Babcock, B Shinn-Cunningham (2008). "Perceptual competition between spatial and harmonicity cues assessed through a matching paradigm," *Journal of the Association for Research in Otolaryngology*. **9** (1): 388-397.
- [J3] Lee, AKC, B Shinn-Cunningham (2008). "Effects of frequency disparities on trading of an ambiguous tone between two competing auditory objects," *Journal of the Acoustical Society of America*, **123** (6): 4340-4351. PMC2536802
- [J4] Lee, AKC, B Shinn-Cunningham (2008). "Effects of reverberant spatial cues on attention-dependent object formation," *Journal of the Association for Research in Otolaryngology*, **9** (1): 150-160.
- [J5] Lee, AKC, A Deane-Pratt, B Shinn-Cunningham (2009). "Localization of objects in auditory scenes," *Journal of the Acoustical Society of America*, **126** (5): 2543-2555. PMC2787073
- [J6] Lee, AKC, MS Hämäläinen, KA Dyckman, JJS Barton, DS Manoach (2011). "Saccadic preparation in frontal eye field is modulated by distinct trial history effects as revealed by magnetoencephalography," *Cerebral Cortex*, **21**(2): 245-253. PMC3020577
- [J7] Dyckman, KA, AKC Lee, Y Agam, M Vangel, D Goff, JJ Barton, DS Manoach (2011). "Abnormally persistent fMRI activation during antisaccades in schizophrenia: a neural correlate of perseveration?" *Schizophrenia Research*, **132** (1): 62-68. PMC3172368
- [J8] Agam, Y, MS Hämäläinen, AKC Lee, K Dyckman, J Friedman, M Isom, N Makris, DS Manoach (2011). "Multimodal neuroimaging dissociates hemodynamic and electrophysiological correlates of error processing." *Proceedings of the National Academy of Sciences*, **108** (42): 17556-17561. PMC3198335
- [J9] Kenet, Tal, E Orekhova, H Bharadwaj, NR Shetty, E Israeli, AKC Lee, Y Agam, R Joseph, MS Hämäläinen, DS Manoach (2012). "Disconnectivity of the Cortical Saccade Network in Autism Spectrum Disorders." *Neuroimage*, **61**: 1226-1234. PMC3376722
- [J10] Lee, AKC, E Larson, RD Maddox (2012). "Mapping cortical dynamics using simultaneous MEG/EEG and anatomically-constrained minimum-norm estimates—an auditory attention example." *Journal of the Visualized Experiments*: e4262.
- [J11] Bizley, J, BG Shinn-Cunningham, AKC Lee (2012). "Nothing is irrelevant in a noisy world: Sensory illusions reveal obligatory within- and across-modality integration." *The Journal of Neuroscience*, **32** (39):13402-10.
- [J12] Maddox, RK, W Cheung, AKC Lee (2012). "Selective attention in an overcrowded auditory scene: implications for auditory-based brain-computer interface design." *Journal of the Acoustical Society of America-Express Letters*, **132**(5): EL385-390.
- [J13] Larson, E, AKC Lee (2013). "The cortical dynamics underlying effective switching of auditory spatial attention." *Neuroimage*, **64**:365-370. PMC3508251
- [J14] Lee, AKC, S Rajaram, J Xia, H Bharadwaj, E Larson, MS Hämäläinen, BG Shinn-Cunningham (2013). "Auditory selective attention reveals preparatory activity in different cortical regions for selection based on source location and source pitch." *Frontiers in Neuroscience*, **6**: Article190.
- [J15] Manoach DS, AKC Lee, Hämäläinen MS, Dyckman KA, Friedman JS, Vangel M, Goff DC, Barton JJS (in press). "Anomalous use of context during task preparation in schizophrenia: a magnetoencephalography study." *Biological Psychiatry*.

Conference Papers / Proceedings

- [C1] Lee, A, H McDermott, WH Holmes (2002). "New fundamental frequency estimators for cochlear implants," *Proceedings of the Ninth Australian International Conference on Speech Science and Technology, Melbourne*, 100-105.

- [C2] Lee, AKC, B Shinn-Cunningham, A Oxenham (2004). "The effects of interaural time difference on temporal and spectral grouping using synthetic vowels," *Auditory Scene Analysis and Speech Production by Human and Machine*, Hanse Institute, Delmenhorst, Germany, August 22-24, 2004.
- [C3] Lee, AKC, B Shinn-Cunningham, A Oxenham (2005). "The missing target: Evidence of a tone's inability to contribute to the auditory foreground," *28th Mid-Winter Meeting of the Association for Research in Otolaryngology*, New Orleans, USA, February 19-24, 2005.
- [C4] Lee, AKC, R Cusack, RP Carlyon, B Shinn-Cunningham (2006). "Evidence for an effect of attention on the buildup of across-frequency streaming," *29th Mid-Winter Meeting of the Association for Research in Otolaryngology*, Baltimore, USA, February 5-9, 2006.
- [C5] Lee, AKC, A Deane-Pratt, D McAlpine, B Shinn-Cunningham (2006). "Spatial cues are used differently for localizing and identifying the same attended auditory object," *151st Meeting of the Acoustical Society of America*, Providence, USA, June 8, 2006.
- [C6] Lee, AKC, B Shinn-Cunningham (2006). "Ambiguous sound elements contribute differently to auditory object identity and object location," *British Society of Audiology Short Papers Meeting on Experimental Studies of Hearing and Deafness*, Cambridge, UK, September 14, 2006.
- [C7] Lee, AKC, B Shinn-Cunningham (2006). "Measuring the distinctiveness of auditory objects using perceived location," *5th Annual Auditory Perception, Cognition, and Action Meeting*, Houston, USA, November 16, 2006.
- [C8] Lee, AKC, S Babcock, B Shinn-Cunningham (2007). "From tone to complex: Generalization of the effects of spatial cues and attention on grouping and streaming," *30th Mid-Winter Meeting of the Association for Research in Otolaryngology*, Denver, USA, February 10-15, 2007.
- [C9] Lee, AKC, B Shinn-Cunningham (2008). "Effects of context on the strength of perceptual grouping cues," *31st Mid-Winter Meeting of the Association for Research in Otolaryngology*, Phoenix, USA, February 16-21, 2008.
- [C10] Kenet, T, E Orekhova, N Shetty, AKC Lee, M Vangel, M Herbert, D Manoach (2008). "MEG study of Cortical Coherence in Autism," *International Society for Autism Research*, London, UK, May 15-17, 2008.
- [C11] Kenet, T, E Orekhova, N Shetty, AKC Lee, M Vangel, MR Herbert, MS Hämäläinen, DS Manoach (2008). "MEG study of cortical coherence in autism spectrum disorders," *2008 Society for Neuroscience Annual Meeting*, Washington, November 15-19, 2008.
- [C12] Lee, AKC, JC Young, KA Dyckman, S Mikulski, JJS Barton, JA Edelman, MS Hämäläinen, DS Manoach (2008). "Immediate neural plasticity: examining the effects of trial history on neural activity in the present trial as measured by MEG," *2008 Society for Neuroscience Annual Meeting*, Washington, November 15-19, 2008.
- [C13] Kenet, T, E Orekhova, N Shetty, AKC Lee, M Vangel, M Elam, M Herbert, MS Hämäläinen, D Manoach (2009). "A MEG Study of Functional Connectivity during Preparation for Saccades in ASD," *8th Annual International Meeting for Autism Research*, Chicago, USA, May 7-9, 2009.
- [C14] Kenet, T, E Orekhova, ER Israeli, H Bharadwaj, NR Shetty, AKC Lee, M Vangel, M Herbert, M Elam, MS Hämäläinen, DS Manoach (2009). "A MEG study of functional connectivity during preparation for saccades in ASD," *2009 Society for Neuroscience Annual Meeting*, Chicago, USA, October 17-21, 2009.
- [C15] Marinkovic, K, E Rickenbacher, S Azma, E Artsy, AKC Lee (2009). "Effects of alcohol intoxication on oculomotor control: an fMRI study," *2009 Society for Neuroscience Annual Meeting*, Chicago, USA, October 17-21, 2009.
- [C16] Lee, AKC, J Xia, S Rajaram, B Shinn-Cunningham, M Hämäläinen (2009). "Frontal Eye Fields are involved in auditory spatial attention," *2009 Binaural BASH meeting*, Boston, USA, October 23-24, 2009.
- [C17] Xia, J, AKC Lee, S Rajaram, B Shinn-Cunningham (2010). "Behavioral measures of spatial and pitch-based selective auditory attention," *31st Mid-Winter Meeting of the Association for Research in Otolaryngology*, Anaheim, USA, February 6-10, 2010.
- [C18] Lee, AKC, S Rajaram, J Xia, MS Hämäläinen, BG Shinn-Cunningham (2010). "MEG and EEG measures of spatial and pitch-based selective auditory attention: Frontal eye fields activation," *31st Mid-Winter Meeting of the Association for Research in Otolaryngology*, Anaheim, USA, February 6-10, 2010.
- [C19] Kenet, T, E Orekhova, H Bharadwaj, NR Shetty, AKC Lee, M Vangel, M Elam, M Herbert, MS Hämäläinen, DS Manoach (2010). "A Study of Functional Connectivity During Preparation for Saccades in ASD," *International Society for Autism Research*, Philadelphia, USA, May 20-22, 2010.
- [C20] Varghese, L, J Xia, AKC Lee (2010). "Managing Acoustic Communications in High-Stress Settings," (NSSEFF Fellow: Barbara Shinn-Cunningham), *National Security Science and Engineering Faculty Fellowship Conference and Lab Tours*, Arlington, VA, 2010.
- [C21] Agam, Y, M Hämäläinen, AKC Lee, K Dyckman, J Friedman, M Isom, DS Manoach (2010). "Multimodal functional imaging of the neural response to errors reveals a primary role of posterior cingulate cortex," *2010 Society for Neuroscience Annual Meeting*, San Diego, USA, November 13-17, 2010.

- [C22] Bizley, J, Shinn-Cunningham, B, [AKC Lee](#) (2011). "Intra- and inter-modal spatial attention: a case of counting flashes 'n beeps," *34th Mid-Winter Meeting of the Association for Research in Otolaryngology, Baltimore, USA, February 19-23, 2011.*
- [C23] Bharadwaj, H, [AKC Lee](#), BG Shinn-Cunningham, (2011). "Measuring auditory attention using frequency tagging", *Computational and Systems Neuroscience (COSYNE) 2011, Salt Lake City, USA, Feb 24-27, 2011.*
- [C24] Rajaram, S, H Bharadwaj, BG Shinn-Cunningham, [AKC Lee](#) (2011). "Cortical functional connectivity inference using MEG", *IEEE Engineering in Medicine and Biology Society (IEEE-EMBS), Banff, Canada, May 13-16 2011. (Equal 2nd prize for student paper / poster award)*
- [C25] Xia, J, L Zhu, [AKC Lee](#), B Shinn-Cunningham (2011). "Behavioral, brainstem, and cortical differences between musicians and non-musicians," *First International Conference on Cognitive Hearing Science, Linköping, Sweden, June 19-21, 2011.*
- [C26] Larson E, [AKC Lee](#) (2011). "Cortical dynamics during endogenous redirection of auditory spatial attention," *First International Conference on Cognitive Hearing Science, Linköping, Sweden, June 19-21, 2011.*
- [C27] [Lee AKC](#) (2011). "Cortical Dynamics of Auditory Spatial Attention," 17th Annual Meeting, Cognitive Science Association for Interdisciplinary Learning (CSAIL), Hood River, Oregon, Aug 4-8, 2011.
- [C28] Larson E, [AKC Lee](#) (2011). "Toward Incorporating Anatomical Information in BCI Designs," 5th *International Brain-Computer Interface Conference 2011, Graz, Austria, September 22-24, 2011.*
- [C29] Bharadwaj H, [AKC Lee](#), BG Shinn-Cunningham (2012). "Hijacking Neural Oscillations to Reveal Control of Auditory Attention," *35th Mid-Winter Meeting of the Association for Research in Otolaryngology, San Diego, USA, February 19-23, 2012.*
- [C30] Mehraei, [AKC Lee](#), S Bressler, BG Shinn-Cunningham (2012). "Effect of Timing on Perceptual Continuity of Streams," *35th Mid-Winter Meeting of the Association for Research in Otolaryngology, San Diego, USA, February 19-23, 2012.*
- [C31] Cheung W, R Maddox, [AKC Lee](#) (2012). "Pushing the Limit of Selective Attention in an Overcrowded Auditory Scene," *35th Mid-Winter Meeting of the Association for Research in Otolaryngology, San Diego, USA, February 19-23, 2012.*
- [C32] Larson E, [AKC Lee](#) (2012). "Probing the cortical dynamics involved in ignoring a low-salience distracting sound," *The Acoustics 2012 Hong Kong, Hong Kong SAR, China, May 13-18, 2012.*
- [C33] Maddox R, [AKC Lee](#) (2012). "What is so hard about selectively attending?" *The Acoustics 2012 Hong Kong, Hong Kong SAR, China, May 13-18, 2012.*
- [C34] Larson E, KY Lee, [AKC Lee](#) (2012). "Switching Auditory Attention Using Spatial and Non-spatial Features Recruits Different Cortical Networks" *2012 ASHA convention, Atlata, USA, Nov 15-17, 2012.*
- [C35] Larson E, [AKC Lee](#) (2013). "Cognitive Cost of Switching Auditory Attention" *36th Mid-Winter Meeting of the Association for Research in Otolaryngology, Baltimore, USA, February 16-20, 2013.*
- [C36] Maddox R, [AKC Lee](#) (2013). "Crossmodal Influences on Steady-State Responses in a Subjective Audio-Visual Binding Task," *36th Mid-Winter Meeting of the Association for Research in Otolaryngology, Baltimore, USA, February 16-20, 2013.*

Active Grants

National Institutes of Deafness and Communication Disorders. K99/R00 DC010196 "Spatiotemporal Mapping of Auditory Attention using Multimodal Imaging," Principal Investigator: AKC Lee (9/1/09-1/31/14; \$926,442)

Department of Defense, Air Force Office of Scientific Research Young Investigator Research Program Award. "An integrated neuroscience and engineering approach to classifying human brain-states." PI: AKC Lee (9/15/12-9/14/15), 3 years; \$360,000)

The Royal Society, International Exchanges Scheme award. "Determining neural mechanisms of audio-visual integration: a multiscale approach." PIs: AKC Lee (USA); J Bizley (UK) (3/30/2012-3/30/2014; £12,000)

UW-Center for Sensorimotor Neural Engineering (CSNE) project grant. "How Modern High-Bandwidth Communications Theory Can Revolutionize Neural Engineering." PIs: L Atlas; AKC Lee (4/15/12-4/14/14; \$93,085)

Completed Grants

Wyss Institute for Biologically Inspired Engineering at Harvard University. Seed funding “Neuroimaging Biomarkers for Depression Protocol,” Co-Investigators: AKC Lee, T Raij (1/1/10-12/31/12; \$121,948)

Bill & Melinda Gates Foundation. “The Developing Mind Project,” Principal Investigators: Co-directors of Institute for Learning & Brain Sciences – P Kuhl & A Meltzoff; Co-PI: AKC Lee (subcontract: 5/1/10-12/31/12; \$150,000)

Mass. General Hospital Fund for Medical Discovery. “Investigation of Inter-trial Neural Plasticity using Multimodal Imaging Techniques,” Principal Investigator: AKC Lee (6/1/08-5/31/09; \$35,000)

Professional Memberships

2004- Member, Association for Research in Otolaryngology
2005- Member, Acoustical Society of America
2008- Member, Society for Neuroscience
2013- Member, IEEE

Kelsey A. Leighton, M.S., CCC-SLP

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Education

- M.S. **Speech-Language Pathology.** *University of Washington*, Seattle, Washington. March 2004
- B.A. **Communication Sciences & Disorders.** *Western Washington University*, Bellingham, Washington. June 2001

Professional Experience

- Clinical Supervisor, Department of Speech and Hearing Sciences:
University of Washington (UW), Seattle, Washington. January 2012- Present
- Staff Speech-Language Pathologist:
Overlake Hospital Medical Center (OHMC), Bellevue, Washington. June 2006-January 2012
- Speech-Language Pathologist:
Communication Plus, Inc., Bellevue, Washington. March 2004-June 2006
- Intern in Speech-Language Pathology:
Veteran's Administration Medical Center, Seattle, Washington. January 2004-March 2004

Presentations

- Guest Lecture, SPHSC 565, *Job Interview Skills and Preparation Strategies.* February 2012
- Guest Lecture, SPHSC 553f, *Group Therapy: Enhancing Social Interaction with Supported Communication Techniques.* February 2012
- Presentation, OHMC Multi-disciplinary Cancer Care Committee, *FEESST for Dysphagia Assessment with Head & Neck Cancer.* March 2011
- In-service, OHMC Out-patient Multi-disciplinary Rehabilitation Team, *Cognitive Sequelae of Right Hemisphere CVA-A case study.* June 2010

Teaching/Supervision Experience

- UWSHC, Instructor, SPHSC 553a/f: Survey of Clinical Process with Adult Populations. Present September 2012-
- UWSHC, Supervisor, SPHSC 553d (ACT): Medical speech-language pathology (MED SLP) students, treatment practicum. June -August 2012
- UWSHC, Supervisor, SPHSC 552fI, II, & d: Core speech-language pathology students. June 2012—Present
- UWSHC, Supervisor, SPHSC 553b (ACE): MED SLP students, evaluation practicum. March—June 2012
- OHMC, Assisted supervision of 4 new staff SLPs immediately following their Clinical Fellowship Year (CFY). 2008-2011
- OHMC, Assisted in supervision of 2 SLPs in their CFY. 2008-2011

- OHMC, Assisted in supervision of 2 SLP interns on the acute care service. 2008-2011

Awards

- ASHA ACE award 2011 November
- OHMC "Champions" Customer Service Award March 2011
- ASHA ACE award 2009 November

Committees

- Graduate Admissions Committee, UW January 2013
- Aphasia Retreat Committee, UW January 2012-Present
- Quality Practice and Patient Safety Committee, OHMC January 2006-December 2012
- Out-Patient Rehabilitation Department Patient Satisfaction Committee, OHMC April 2009-December 2009

Professional Development

- 1/17/13 Supervisors: Mentoring & Coaching Students: Reflecting on the Emotions that Get Stirred by Jacqui Metzger
- 10/2/12 How our Students Think- Next Steps by Diane Kendall
- 10/2/12 SLP/AuD Supervision by Kate Krings
- 4/26/12 SIG 13 Perspectives Vol. 20, No. 4, December 2011
- 4/5/12 Challenging Students who Excel
- 3/24/12 Phonologically Based Rehabilitation
- 2/15/12 Handling a Bad News Day: Talking to Students about Poor Progress
- 12/31/11 Stuttering Basic Clinical Skills
- 10/31/11 SIG 3 Perspectives Vol. 21, No. 2, July 2011
- 9/30/11 SIG 13 Perspectives Vol. 20, No. 2, June 2011
- 9/1/11 Augmentative and Alternative Communication for Adults in Medical Settings
- 6/30/11 SIG 3 Perspectives Vol. 21, No. 1, March 2011
- 6/30/11 SIG 13 Perspectives Vol. 20, No 1, March 2011
- 3/31/11 SIG 13 Perspectives, Vol. 19, No 4, December 2010
- 2/28/11 SIG 3 Perspectives Vol. 20, No 3, November 2010
- 1/31/11 SIG 13 Perspectives Vol. 19, No. 3, October 2010
- 11/20/10 ASHA Annual Convention 2010
- 10/29/10 2010 Minifie Lecture
- 9/30/10 SIG 13 Perspectives Vol 19, No 2, June 2010
- 9/1/10 Management of Individuals Who Are Trach and Ventilator Dependent
- 6/16/10 SIG 3 Perspectives Vol. 20, No. 1, March 2010
- 6/16/10 SIG 13 Perspectives Vol. 19, No. 1; March 2010
- 5/8/10 LSVT LOUD Training and Certification Workshop

- 4/25/10 2010 ASHA Healthcare Conference and Business Institute
- 3/31/10 SIG 13 Perspectives Vol. 18, No. 4; December 2009
- 2/28/10 SIG 3 Perspectives Vol. 19, No. 3; November 2009
- 1/31/10 SIG 13 Perspectives Vol. 18, No. 3, October 2009
- 1/14/10 Neurologic Basis for Recovery Post Stroke
- 11/27/09 FEES: Fiberoptic Endoscopic Evaluation of Swallowing
- 10/31/09 SIG 3 Perspectives Vol. 19, No. 2; July 2009
- 10/3/09 Langmore Foundation FEES Course
- 9/30/09 SIG 13 Perspectives Vol. 18, No. 2; June 2009
- 2/17/09 Advanced Practices in Voice and Dysphagia

Affiliations/Memberships

ASHA Certificate of Clinical Competence (CCC), Member#: 21057444	April 2005-Present
Washington Department of Health, SLP License #: LL00003920	March 2005-Present
ASHA Special Interest Group (SIG) 2: Neurophysiology and Neurogenic Speech and Language Disorders	2013
ASHA SIG 11: Administration and Supervision	2013
ASHA SIG 12: Augmentative and Alternative Communication	2013
ASHA SIG 3: Voice and Voice Disorders	Jan. 2008-December 2012
ASHA SIG 13: Swallowing and Swallowing Disorders	Jan. 2008-December 2012

Professionally-Related Experience

- 2012: UWSHC, *UW 3rd Annual Aphasia Retreat*- Member of planning committee and coordinated speech-language pathology student volunteers working with Stroke Survivors and Caregivers.
- 2010: OHMC, *Eastside Vitality Fair*- Met with community members providing information about outpatient rehabilitation services.

JULIE D. LEONARDO
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Seattle, WA 98126
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EDUCATION

Master of Science, Speech-Language Pathology

December 2002, University of Washington, Seattle, WA

Postbaccalaureate Studies, Speech and Hearing Sciences

September 1999 – June 2000, University of Washington, Seattle, WA

September 1992 – May 1993, University of Connecticut, Storrs, CT

Bachelor of Arts, Communications, Psychology Minor

June 1992, University of Massachusetts, Amherst, MA (Magna cum Laude and Commonwealth Scholar)

WORK EXPERIENCE

Clinical Instructor / Director of Student Services (March 2012 – Present)

University of Washington, Department of Speech and Hearing Sciences, Seattle, WA

- Oversees the day-to-day administration of the department's six degree programs, including the application of University and Department policies and procedures. Manages the newly formed Student Services unit and the staff working in supporting the academic programs, faculty and students.
 - Responsible for all key academic program milestones and procedures, including admissions, orientation, scholarships/aid, curriculum scheduling, program plans, registration, instructional support, general and final exams, exit surveys, graduation, etc..
 - Department's liaison with Professional & Continuing Education (PCE), UW Curriculum Committee, UW Attorney General's Office, UW Graduate School, UW Undergraduate Advising and Admissions.
 - Oversight of clinical compliance requirements, including the Health Sciences Immunization Program
 - Coordinates all marketing plans, activities, and student recruitment
 - Manages assessment/outcome data collection for the degree programs.
 - Part of the accreditation and program review teams.

Clinical Instructor / Student Services Coordinator (March 2010 - March 2012)

University of Washington, Department of Speech and Hearing Sciences, Seattle, WA

- Oversees the day-to-day administration of the department's four graduate degree programs, including the application of University and Department policies and procedures. Supervises the graduate program advisor and support provided to students and faculty. Manages all graduate academic program milestones and procedures, including admissions, orientation, scholarships/aid, curriculum scheduling, program plans, registration, instructional support, exams, graduation, etc. Oversees the administration of the department's three fee-based degrees. Manages the department's clinical affiliation agreements.

Clinical Instructor / Fieldwork Coordinator (September 2006 – March 2010)

University of Washington, Department of Speech and Hearing Sciences, Seattle, WA

- As a member of the Speech-Language Pathology faculty, provide administrative and clinical oversight of key components of the two Master's programs in Speech-Language Pathology.
 - Supervise graduate student clinicians enrolled in the adult neurological disorders practica in the UW Speech and Hearing Clinic. Provide instruction in the areas of evaluation, treatment and professional skills.
 - Coordinate and manage offsite student practicum experiences, including the development of a fieldwork database for tracking placements. Coordinate placement site affiliation agreements, honoraria payments, site visits, community supervisor training and the clinical associate program.
 - Oversee clinical progress and evaluations for offsite clinical placements and teach quarterly seminar focused on the practice of Medical Speech-Language Pathology.
 - Department liaison with Professional & Continuing Education (PCE) to manage fee-based degrees. Coordinate SLP admissions and orientation. Oversee quarterly curriculum scheduling, manage and maintain graduate program documents and content, coordinate marketing activities and materials for prospective students including website, coordinate program outcomes data collection and analysis.

Speech-Language Pathologist (October 2003 – June 2005)

Full-time, Swedish Medical Center, Inpatient Rehabilitation & Acute Care, Seattle, WA (4/2004 – 6/2005)

Per Diem, Virginia Mason Medical Center, Physical Medicine & Rehabilitation, Seattle, WA (1/2004 – 4/2004)

Per Diem, Kindred Healthcare, PeopleFirst Rehabilitation, Seattle, WA (10/2003 – 4/2004)

- Worked on multi-disciplinary teams serving the needs of acute medical, acute rehabilitation, transitional care patients. Experience with stroke and aphasia rehabilitation, cognitive-communication disorders, dementia, dysphagia, Multiple Sclerosis, and Parkinson's disease. Skilled at bedside swallow assessments and VFSS.

Speech Pathology Clinical Fellow (September 2002 – September 2003)

Veterans Administration Medical Center, Puget Sound Health Care System, Seattle, WA

- Worked across acute, inpatient and outpatient rehabilitative settings. Led outpatient therapy groups for laryngectomees and veterans with speech and language deficits. Experience with a variety of disorders and etiologies, including aphasia, dysarthrias, Multiple Sclerosis, Amyotrophic Lateral Sclerosis, Parkinson's, and spinal cord injuries.
- In conjunction with otolaryngology, provided services to the head and neck cancer population, including dysphagia management and alaryngeal communication. Experience with both MBS and FEES diagnostics.

Marsh USA, Healthcare Practice, Seattle, WA

Client Services Representative, Part-Time (October 1999 – August 2000)

- Supported liability insurance purchasing for health care and financial institution clients. Created renewal proposals, insurance binders and coverage documents, reviewed contracts, and coordinated quotes and policy issuance.

Chubb-Executive Risk, Simsbury, CT

Manager, Health Care Underwriting Operations (March 1997 – July 1999)

- Developed and implemented office management procedures for a start-up healthcare liability insurance division. Hired, supervised, and oversaw training for underwriting and administrative support team. Managed business planning, yearly budget, business audits, reporting, workflow, marketing and strategic projects. Supervised a staff of ten.

Aetna US Healthcare, Middletown, CT

Communications Manager, Utilization Management Operations (April 1996 – March 1997)

Communications Consultant, Utilization Management Operations (October 1994 – April 1996)

Project Analyst, National Accounts Network Services (June 1993 – October 1994)

- Developed and executed national employee and customer communication strategies. Assisted with business planning and strategy activities, including merger related restructuring. Supervised staff of five.

RESEARCH

Veteran's Administration Puget Sound Health Care System (2003)

In collaboration with the Center for Head and Neck Oncology, contributed to NIH grant submission entitled "Using Fiberoptic Endoscopic Evaluation of Swallow (FEES®) for the assessment and rehabilitation of post-radiotherapy dysphagia." Assisted in the development of a modified FEES® assessment protocol and computerized template. Assisted in preliminary data collection, and created a patient tracking database.

University of Washington Speech and Hearing Sciences Department (2002)

Master's thesis: "Supported communication intervention for chronic aphasia: A preliminary investigation into the effects of communication partner training on the quality of communication." Dr. Margaret Rogers, Thesis Advisor.

HONORS, AWARDS & PROFESSIONAL AFFILIATIONS

- Washington Speech and Hearing Association (WSLHA) Member
 - WSLHA Board Member / Treasurer (2013 – present)
 - WSLHA Membership Chair (2011- present)
- American Speech-Language Hearing Association (ASHA) Member
 - ASHA Division #2 Member – Neurophysiology and Neurogenic Speech & Lang. Disorders (*since 2008*)
 - ASHA Division #13 Member– Dysphagia (*since 2008*)
- Carrell-Miner Clinical Achievement Award in Speech-Language Pathology, University of Washington (2002)
- Phi Beta Kappa and Golden Key National Honors Society Member, University of Massachusetts Chapters (1992)

Lisa Mancl
Clinical supervisor/lecturer

Pediatric Audiology and amplification

Lisa Mancl, M.S., CCC-A
Center on Human Development and Disability
University of Washington Medical Center
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[Child Development and Mental Retardation Center](#)

B.S. University of Arizona, 1985

M.S. University of Washington, 1987

Lisa has worked as the lead audiologist at CHDD (Center on Human Development and Disability) since 1993. She is involved in providing clinical services to patients at CHDD and supervises AuD graduate students in their pediatric audiology practica experiences. Lisa's clinical focus is in the area of diagnosing hearing loss in infants and children using both physiologic (ABR and OAE) and behavioral assessments. For her patients with hearing loss, Lisa is involved in the fitting and monitoring of hearing aids and hearing assistance technology.

Lisa teaches two courses to AuD students:

- SPHSC 572 Pediatric Audiology
- SPHSC 585 Pediatric Amplification.

Prior to her clinical position at CHDD, Lisa worked as a Research Audiologist in the lab of Dr. Lynne Werner in the area of infant psychoacoustics. She also worked on a multi-site 5-year research study, Identification of Neonatal Hearing Impairment, with Dr. Richard Folsom. Finally, Lisa's first experiences in the field of Audiology were in aural habilitation and early intervention for children with hearing loss, both at the Early Childhood Home Instruction Program in Seattle and at the Providence Speech and Hearing Clinic in Orange, CA.

Lisa is licensed to practice as an Audiologist in the state of Washington, and is a Fellow of the American Speech-Language-Hearing Association (ASHA) and American Academy of Audiology (AAA). Lisa serves as a board member on the Washington chapter of Hands and Voices, a parent-professional organization supporting families with children with hearing loss.

Selected Publications

Folsom, R.C, and Mancl, L.R.. 2007. Auditory Electrophysiological Assessment.

Hearing and Balance Disorder, Ackley, R.S., Decker, T.N., and Limb, C.J. (Eds), Lawrence Erlbaum Associates Publishers.

Widen, J.E., Folsom, R.C., Cone-Wesson, B., Carty, L., Dunnell, J.J., Koebshell, K., Levi, A., Mancl, L., Ohlrich, B., Trouba, S., Gorga, M.P., Sininger, Y.S., Vohr, B.R., Norton, S.J. 2000. Identification of neonatal hearing impairment: Hearing status at 8-12 months corrected age: visual reinforcement audiometry protocol. *Ear and Hearing*, 21, 471-487.

Werner, L.A., Mancl, L.R., and Folsom, R.C. 1993. The relationship between auditory brainstem response and behavioral thresholds in infants and adults. *Hearing Research*, 68, 131-141.

CURRICULUM VITAE

LUDO MAX

*Department of Speech and Hearing Sciences
University of Washington
1417 N.E. 42nd Street
Seattle, WA 98105-6246
LudoMax@uw.edu*

Educational Background

- Ph.D. Speech Pathology, Kent State University, Kent, OH (2000)
Major: Fluency Disorders; Minors: Speech Motor Control, Neuroscience
- M.A. Speech-Language Pathology, University of Leuven, Leuven, Belgium (1992)
- B.A. Speech-Language Pathology & Audiology, Katholieke Vlaamse Hogeschool, Antwerp, Belgium (1989)

Academic and Professional Appointments

- Member, Institute of Translational Health Sciences — (March 2011–present).
- Affiliated Faculty Member, Graduate Program in Neurobiology and Behavior, University of Washington, Seattle, WA — (August 2010–present).
- Associate Professor with Tenure, Department of Speech and Hearing Sciences, University of Washington, Seattle, WA — (January 2009–present).
- Affiliated Research Scientist, Haskins Laboratories, New Haven, CT — (March 2001–present).
- Associate Professor with Tenure, Department of Communication Sciences, Division of Communication Disorders, University of Connecticut, Storrs, CT — (August 2006–December 2008).
- Assistant Professor, Department of Communication Sciences, Division of Communication Disorders, University of Connecticut, Storrs, CT — (August 2000–August 2006).
- Assistant Professor, Department of Speech-Language Pathology and Audiology, School of Graduate Medical Education, Seton Hall University, South Orange, NJ — (August 1998–July 2000).
- Research Assistant, Orofacial Motor Control Lab, School of Speech Pathology & Audiology, Kent State University — (September 1994–August 1998).
- Teaching Assistant, Graduate course "Fluency Disorders," School of Speech Pathology & Audiology, Kent State University, Kent, OH — (September 1995–August 1998).
- Instructor, Undergraduate course "Physical Bases of Speech," School of Speech Pathology & Audiology, Kent State University, Kent, OH — (Spring 1997).

Clinical and research associate, Department of Otorhinolaryngology, Head & Neck Surgery, and Communication Disorders, University Hospital, University of Antwerp (Belgium) — (October 1992–August 1994).

Director, Founder, and Speech-Language Pathologist, Fluency Disorders Treatment and Research Clinic, Heusden-Zolder (Belgium) — (September 1991–August 1994).

Assistant audiologist, "De Medische Akoestiek" (audiological and hearing aid services, Belgium) — (September 1988–May 1990).

Courses taught

Currently (University of Washington)

Studies in Speech Science and Disorders (doctoral)

Seminar in Speech and Hearing Sciences (doctoral)

Fluency Disorders (masters)

Speech, Language, Hearing and the Brain (undergraduate, co-taught)

2005-2008 (University of Connecticut)

Seminar in Speech Science (graduate)

Fluency disorders (graduate)

Articulation, voice, and fluency disorders (fluency section only, undergraduate)

Previously

Advanced Speech Science (graduate, UConn)

Introduction to Research (graduate, UConn)

Speech Science (graduate, Seton Hall University)

Research Methods (graduate, Seton Hall University)

Fluency Disorders (graduate, Seton Hall University)

Instrumentation for Speech-Language Pathology (graduate, Seton Hall University)

Scientific Writing (graduate, Seton Hall University)

Phonetics (undergraduate, University of Connecticut, Seton Hall University)

Physical bases of speech (undergraduate, Kent State University)

Editorial Boards

Associate Editor, *Journal of Fluency Disorders* — (November 2001 – present)

Other professional Service

Editorial Consultant or Ad Hoc Reviewer

Journal of Speech, Language, and Hearing Research

Journal of the Acoustical Society of America

Journal of Fluency Disorders

American Journal of Speech-Language Pathology and Audiology

Contemporary Issues in Communication Science and Disorders
Proceedings of the National Academy of Sciences of the United States of America Human
Brain Mapping
Journal of Neurophysiology
Brain
Journal of Motor Behavior
Neuroscience Letters
Journal of Neurolinguistics
Laterality
Brain Research Interactive
Acta Psychologica (Human Performance)
International Journal of Language and Communication Disorders
Proceedings of the 2004 Conference on Advances in Internet Technologies and
Applications (CAITA), Editors M. Tomovic and V. Milutinovic

Program Committee, International Seminar on Speech Production, Montreal, Canada (2011).

Program Committee, 2010 Biennial Conference on Motor Speech and Speech Motor Disorders, Savannah, Georgia — (2008-2010).

Fluency Disorders Program Committee, *2009 Annual Convention of the American Speech-Language-Hearing Association* — (December 2008 - November 2009).

Fluency Disorders Program Committee, *2008 Annual Convention of the American Speech-Language-Hearing Association* — (November 2007 - November 2008).

Study Section, National Institutes of Health (NIDCD R03 Program) — (2008).

Speech Science Program Committee, *2006 Annual Convention of the American Speech-Language-Hearing Association* — (November 2005 - November 2006).

Motor Speech in Adults and Children Program Committee, *2006 Annual Convention of the American Speech-Language-Hearing Association* — (November 2005 - November 2006).

Fluency Disorders Program Committee, *2005 Annual Convention of the American Speech-Language-Hearing Association* — (November 2004 - November 2005).

Reviewer, *Proceedings of the 4th World Congress on Fluency Disorders* (A. Packman et al., Eds.)— (September 2003 – November 2003).

“Shadow mentor,” Annual Convention of the American Speech-Language-Hearing Association, November 13-15, 2003, Chicago, IL

Mentor to first-time authors, *Contemporary Issues in Communication Science and Disorders* — (January 2002 – 2005).

Fluency Disorders Program Committee, *2002 Annual Convention of the American Speech-Language-Hearing Association* — (November 2001 - November 2002).

Ad Hoc Book Proposal Reviewer, Merrill Prentice Hall publishers — (March 2001).

Editorial Assistant, *Contemporary Issues in Communication Science and Disorders* — (May 1996 - August 1998).

University and Department Service

Peer Teaching Evaluation Committee, Department of Speech and Hearing Sciences, University of Washington — (2011 – present).

Research Colloquium Committee, Department of Speech and Hearing Sciences, University of Washington — (2009 – present).

Student Research Laboratory Committee, Department of Speech and Hearing Sciences, University of Washington — (2009 – present).

Annual Minifie Lecture Committee, Department of Speech and Hearing Sciences, University of Washington — (2009).

Committee on Courses and Curricula, College of Liberal Arts and Sciences, University of Connecticut — (Spring 2008).

Alternate for the Graduate Faculty Council, University of Connecticut — (2008 - 2010).

PTR Committee, Communication Disorders Division, Department of Communication Sciences, University of Connecticut — (2006 - present).

Graduate Faculty Council, University of Connecticut — (2005 - 2007).

Co-chair, Merit Committee, Department of Communication Sciences, University of Connecticut — (2004 - present).

Space and Equipment Committee, Department of Communication Sciences, University of Connecticut — (Summer 2003 - present).

Graduate Admissions Committee, SLP program, Department of Communication Sciences, University of Connecticut — (Spring 2002 - present).

M.A. Curriculum Committee, SLP program, Department of Communication Sciences, University of Connecticut — (Fall 2001 - present).

Merit Process Reorganization Committee, Department of Communication Sciences, University of Connecticut — (Fall 2001).

Candidacy Process Committee, Ph.D. program in Health Sciences, Seton Hall University-University of Medicine and Dentistry of New Jersey — (January 1999 - August 2000).

Research Committee, School of Graduate Medical Education, Seton Hall University — (November 1998 - August 2000).

Speech-Language Pathology Search Committee, School of Graduate Medical Education, Seton Hall University — (February 1999 - August 1999).

Faculty Evaluation Procedures Committee, School of Graduate Medical Education, Seton Hall University — (December 1998 - January 1999).

Reviewer, Annual Research Colloquium proposals, School of Graduate Medical Education, Seton Hall University — (1999 - 2000).

Faculty advisor, Seton Hall University chapter of the National Student Speech-Language-Hearing Association — (September 1998 - August 2000).

Clinical Certification

Certificate of Clinical Competence in Speech-Language Pathology (CCC-SLP), American Speech-Language-Hearing Association.

Membership in professional organizations

Neuroscience/Motor Control

Society for the Neural Control of Movement (2002 – present)

Society for Neuroscience (2004 – present)

International Society of Motor Control (2005 – present)

Speech/Stuttering

American Speech-Language-Hearing Association (1994 – present)

International Fluency Association (1994 – present)

Acoustical Society of America (1998 – 2003)

Grants

Max, L. (P.I.). De-adaptation as a distinct form of speech and limb sensorimotor learning. Submitted to the National Science Foundation (in review; \$426,158 total cost, proposed period 02/01/2013 – 01/31/2017).

Max, L. (P.I.) *Neural control and sensorimotor mechanisms in stuttering*. National Institutes of Health/National Institute on Deafness and Other Communication Disorders (R01 DC007603; \$1,903,281; 07/01/2006—06/30/2012).

Max, L. (P.I.), & Musiek, F.E. *Neural maturation in children with persistent developmental stuttering: Electrophysiological studies of central auditory pathway activation from brain stem to cortex*. Thrasher Research Fund (\$218,742; 04/01/2006–09/30/2011).

Max, L. (Computer Core Co-Director). *Core center: NIDCD research core center* (P30 DC004661; P.I. Edwin W. Rubel; January 2009—present).

Max, L. (Grant Preceptor). *Research training in speech and hearing sciences* (T32 DC000033; P.I. Lynne Werner; January 2009—present).

Max, L. (P.I.) *Neurological bases of stuttering: Motor learning and control*. The Patrick and Catherine Weldon Donaghue Medical Research Foundation (\$217,902; January 2006–December 2008).

Max, L. (P.I.). *Neurophysiology of sensory processing and sensorimotor integration for speech production*. University of Connecticut, Research Foundation, Faculty Large Grants program (\$21,561; June 1, 2006–May 31, 2007).

DeMartinis, N., Winokur, A., & Max, L. (Co-P.I.). *A pilot study of the efficacy and safety of Aripiprazole in the treatment of stuttering*. Bristol-Myers Squibb investigator-initiated grant program (\$58,974; December 2004–November 2005).

Max, L. (P.I.). *Neural control and sensorimotor integration in normal speech and stuttering*. Dean's Office seed grant, College of Liberal Arts and Sciences, University of Connecticut (\$12,200; June 2004—May 2005).

Max, L. (P.I.). *Minimizing artifacts in electrophysiological recordings of brain activity preceding orofacial movements*. University of Connecticut, Research Foundation, Faculty Small Grants program (\$1,000; July 2003—July 2004).

Max, L. (P.I.). *Toward an understanding of how deaf and hearing-impaired individuals can learn, maintain, and refine internal models for high-precision speech motor control*. National Organization for Hearing Research Foundation (\$10,000; January 2003–July 2004).

Max, L., (P.I.) & Earnest, M. M. *From babbling to linguistically-relevant articulatory gestures: Developmental continuity of speech motor organization in infants and young children*. National Science Foundation Doctoral Dissertation Research Improvement Grant (\$11,950; July 2002–May 2004).

Max, L. (P.I.). *Measuring movement-related cerebral potentials in physiological investigations of orofacial speech and nonspeech movements: A series of pilot studies*. University of Connecticut, Research Foundation, Faculty Large Grants program (\$21,580; June 1, 2001–May 31, 2002).

Max, L. (P.I.). *Coordination of oral and laryngeal speech movements in individuals who stutter*. University of Connecticut, Research Foundation, Faculty Small Grants program. (\$995; January 2001–December 2001).

Vandevenne, A., & Max, L. (Co-P.I.). *Adaptation of stuttering frequency after solo versus unison readings*. Stichting Logopedie Fonds, Belgium. (\$1,000; January 1995).

Awards and achievements

Undergraduate Research Mentor Award, University of Washington (2012)

Graduate Student Senate Research Award, Kent State University (1998)

University Fellowship, Kent State University (1997-1998)

David B. Smith Fellowship for Outstanding Scholarship and Research Potential, Kent State University (1997)

Outstanding Graduate Student Award, Ohio Speech and Hearing Association (1996)

Doctoral Teaching/Research Assistantship, Kent State University (1994-1997)

Post-doctoral fellows supervised

Santosh Maruthy, Ph.D. (2010)

Roman Prokopenko, Ph.D. (2006 – 2008)

Silvia Corbera, Ph.D. (2006 – 2007)

Doctoral students mentored as major advisor

Ayoub Daliri (Autumn 2009—present)

Yongqiang Feng (Spring 2004—Fall 2008)

Dissertation defended December 2008: “*Dissociating the role of auditory and somatosensory feedback in speech production: Sensorimotor adaptation to formant shifts and articulatory perturbations.*”

Leonardo Oliveira (Fall 2006)

Linda A. Patrylak (Spring 2003—Fall 2003)

Irena Vincent (Fall 2001—Summer 2003)

Margaret M. Earnest (Fall 2000-Summer 2003)

Other thesis and dissertation committees

Committee member, advisory committee—Stephanie Nagle, Ph.D. student, Department of Speech & Hearing Sciences, University of Washington (Autumn 2009—present)

Associate advisor, master's thesis—Kristine Cronin, “Auditory electrophysiological responses to clicks and speech syllables in children who stutter.” Department of Communication Sciences, University of Connecticut (January 2009—Expected date of completion May 2009).

Major advisor, master's thesis—Kristine Cronin, “Auditory electrophysiological responses to clicks and speech syllables in children who stutter.” Department of Communication Sciences, University of Connecticut (January 2008—December 2008).

Committee member, doctoral dissertation—Oren Civer, “Computational modeling of the neural substrates of stuttering and induced fluency.” Department of Cognitive and Neural Systems, Boston University. (January 2008—February 2009).

Major advisor, master's thesis—Jennifer Daniels, “Central afferent responses to sensory stimulation prior to the initiation of voluntary movements.” Department of Communication Sciences, University of Connecticut. Completed May 2007.

Major advisor, master's thesis—Marie E. Wallace, “Effects of tendon vibration on kinesthetic perception, electromyographic activity, and effector position in mechanically constrained and unconstrained conditions.” Department of Communication Sciences, University of Connecticut. Completed November 2005.

External reader, doctoral dissertation—Julia C. Selby, Department of Communication Sciences, University of Connecticut (2001).

Research awards and achievements by mentored students

Mary Gates Scholarship, University of Washington (2011-2012)—Derek G. Maffet, University of Washington, Speech and Hearing Sciences.

Mary Gates Scholarship, University of Washington (2011-2012)—Minh Van Trinh, University of Washington, Speech and Hearing Sciences.

Washington Research Foundation Fellowship, University of Washington (2011-2012)—Kwang Seob Kim, University of Washington program in Bioengineering.

Mary Gates Scholarship, University of Washington (2010-2011)—Kwang Seob Kim, University of Washington program in Bioengineering.

Several Undergraduate Research Conference Travel Awards from the University of Washington—Kwang Seob Kim, University of Washington program in Bioengineering.

Several travel awards from the University of Washington Graduate School and the Department of Speech and Hearing Sciences (Olswang Fund)—Ayoub Daliri, Ph.D. student in Speech and Hearing Sciences, University of Washington.

Convention Recognition Registration Waiver (for student submissions receiving the highest Convention Program review scores in specific topic areas) from the American Speech-Language-Hearing Association to attend the ASHA Convention in Chicago, IL—Caitlin J. Baldwin, University of Connecticut M.A. program in Communication Disorders (November 2008).

Convention Recognition Registration Waiver (for student submissions receiving the highest Convention Program review scores in specific topic areas) from the American Speech-Language-Hearing Association to attend the ASHA Convention in Chicago, IL—Kristine L. Cronin, University of Connecticut M.A. program in Communication Disorders (November 2008).

Student Research Travel Award (\$500) from the American Speech-Language-Hearing Association to attend the ASHA Convention in Chicago, IL—Caitlin J. Baldwin, University of Connecticut M.A. program in Communication Disorders (November 2008).

Student Research Travel Award (\$500) from the American Speech-Language-Hearing Association to attend the ASHA Convention in Chicago, IL—Kristine L. Cronin, University of Connecticut M.A. program in Communication Disorders (November 2008).

Doctoral Dissertation Fellowship (\$2,000), Graduate School, University of Connecticut—Yongqiang Feng (Summer 2008)

Office of Undergraduate Research grant (\$500), University of Connecticut—Karla Curet, University of Connecticut Biology/Pre-med program (Fall 2007).

Undergraduate Summer Research Scholarship (\$3,250), University of Connecticut—Caitlin Baldwin, University of Connecticut B.A. program in Communication Disorders (June 2007-August 2007).

Presidential Scholars Enrichment Award (\$2,500), University of Connecticut—Taylor Saul, University of Connecticut B.A. Program in Communication Disorders (Summer 2007).

Office of Undergraduate Research grant (\$500), University of Connecticut—Tara M. Kennedy, University of Connecticut B.A. Program in Communication Disorders (Fall 2005).

Student Research Travel Award from the American Speech-Language-Hearing Association for the ASHA Convention in Chicago, IL—Marie E. Wallace, University of Connecticut M.A. Program in

Communication Disorders (November 2003).

International Speech Communication Association travel award for the 15th International Congress of Phonetic Sciences, Barcelona, Spain—Marie E. Wallace, University of Connecticut B.A. program in Communication Disorders (August 2003).

Undergraduate Research Student Travel Award from the University of Connecticut to attend the Annual Convention of the American Speech-Language-Hearing Association, Atlanta, GA—Marie E. Wallace, University of Connecticut B.A. Program in Communication Disorders (November 2002).

Undergraduate Summer Research Scholarship (\$3,500), University of Connecticut—Marie E. Wallace, University of Connecticut B.A. program in Communication Disorders (June 2002-August 2002).

Undergraduate Summer Research Scholarship (\$3,500), University of Connecticut—Leah S. Hine, University of Connecticut B.A. program in Communication Disorders (June 2001-August 2001).

Annual Research Colloquium Honorable Mention—Health Sciences Research, School of Graduate Medical Education, Seton Hall University—Natalie P. Glass, Master of Science program in Speech-Language Pathology, Seton Hall University (May 2000).

Several awards and distinctions at county and state science fairs—Elana M. Yudman, Authentic Science Research Student, North Rockland High School, Thiells, NY (1999-2000).

Science and Academic Career Forum Travel Fellowship, American Speech-Language-Hearing Association—Karen R. Murphy, Master of Science program in Speech-Language Pathology, Seton Hall University (November 1999).

Publications (all subcategories in reverse chronological order)

Refereed journal articles (I = invited)

38. Max, L., & Baldwin, C. J. (submitted). Limited ability to learn neural representations of vocal tract auditory-motor maps in adults who stutter.
36. Feng, Y., & Max, L. (submitted). Accuracy of a custom camera-based system for unobtrusive 2D and 3D motion tracking during speech and nonspeech motor tasks.
35. Daliri, A., Prokopenko, R. A., & Max, L. (revision under review). Afferent and efferent aspects of mandibular sensorimotor control in adults who stutter.
34. Civier, O., Bullock, D., Max, L., & Guenther, F. H. (revision under review). Computational modeling of stuttering caused by impairments in a basal ganglia thalamo-cortical circuit involved in syllable selection and initiation. *Brain and Language*.
33. Maruthy, S., Cronin, K. L., Cann, C., Musiek, F. E., & Max, L. (revision in preparation). Stuttering and auditory processing: a comprehensive review of studies on central auditory pathway activation from brainstem to cortex. *Journal of Fluency Disorders*
32. Feng, Y., Gracco, V. L., & Max, L. (2011). Integration of auditory and somatosensory error signals in the neural control of speech movements. *Journal of Neurophysiology*, 106, 667-679.

DOI:10.1152/jn.00638.2010

31. Feng, Y., Hao, G. J., Xue, S. A., & Max, L. (2011). Detecting anticipatory effects in speech articulation by means of spectral coefficient analyses. *Speech Communication, 53*, 842-854. DOI:10.1016/j.specom.2011.02.003
30. Max, L., & Baldwin, C. J. (2010). The role of motor learning in stuttering adaptation: repeated versus novel utterances in a practice-retention paradigm. *Journal of Fluency Disorders, 35*, 33-43. DOI:10.1016/j.jfludis.2009.12.003
29. Balasubramanian, V., Cronin, K. L., & Max, L. (2010). Dysfluency levels during repeated readings, choral readings, and readings with altered auditory feedback in two cases of neurogenic stuttering. *Journal of Neurolinguistics, 23*, 488-500. DOI:10.1016/j.jneuroling.2009.04.004
28. Max, L., & Gracco, V. L. (2005). Coordination of oral and laryngeal movements in the perceptually fluent speech of adults who stutter. *Journal of Speech, Language, and Hearing Research, 48*, 524-542.
27. Scheifele, P. M., Andrew, S., Cooper, R. A., Darre, M., Musiek, F. E., & Max L. (2005). Indication of a Lombard vocal response in the St. Lawrence River beluga. *Journal of the Acoustical Society of America, 117*, 1486-1492.
26. Max, L., Guenther, F. H., Gracco, V. L., Ghosh, S. S., & Wallace, M. E. (2004). Unstable or insufficiently activated internal models and feedback-biased motor control as sources of dysfluency: A theoretical model of stuttering. *Contemporary Issues in Communication Sciences and Disorders, 31*, 105-122. (I)
25. Max, L., & Yudman, E. M. (2004). Understanding stuttering will require theoretical models that fit the data rather than attempts to make the data fit the most preferred models: A reply to Howell. *Journal of Speech, Language, and Hearing Research, 47*, 105-113.
24. Balasubramanian, V., & Max, L. (2004). Crossed apraxia of speech: A case report. *Brain and Cognition, 55*, 240-246.
23. Balasubramanian, V., Max, L., Van Borsel, J., Rayca, K. O., & Richardson, D. (2003). Acquired stuttering following right frontal and bilateral pontine lesion: A case study. *Brain and Cognition, 53*, 185-189.
22. Max, L., Caruso, A. J., & Gracco, V. L. (2003). Kinematic analyses of speech, orofacial nonspeech, and finger movements in stuttering and nonstuttering individuals. *Journal of Speech, Language, and Hearing Research, 46*, 215-232.
21. Max, L., & Yudman, E. M. (2003). Accuracy and variability of isochronous rhythmic movement timing across motor systems in stuttering versus nonstuttering individuals. *Journal of Speech, Language, and Hearing Research, 46*, 146-163.
20. Earnest, M. M., & Max, L. (2003). En route to the three-dimensional registration and analysis of speech movements: Instrumental techniques for the study of articulatory kinematics. *Contemporary Issues in Communication Sciences and Disorders, 30*, 5-25.

19. Max, L., & Onghena, P. (2000). Defining experimental units: Agreement awaiting implementation—Response to Johnson. *Journal of Speech, Language, and Hearing Research*, *43*, 1291-1293.
18. Max, L., & Onghena, P. (1999). Some issues in the statistical analysis of completely randomized and repeated measures designs for speech, language, and hearing research. *Journal of Speech, Language, and Hearing Research*, *42*, 261-270.
17. Max, L., & Caruso, A. J. (1998). Adaptation of stuttering frequency during repeated readings: Associated changes in acoustic parameters of perceptually fluent speech. *Journal of Speech, Language, and Hearing Research*, *41*, 1265-1281.
16. Caruso, A. J., Max, L., McClowry, M. T., & Chodzko-Zajko, W. J. (1998). Cognitive stress and stuttering: An experimental paradigm for connected speech. *Contemporary Issues in Communication Science and Disorders*, *25*, 65-75.
15. Max, L., & Caruso, A. J. (1997). Acoustic measures of temporal intervals across speaking rates: Variability of syllable- and phrase-level relative timing. *Journal of Speech, Language, and Hearing Research*, *40*, 1097-1110.
14. Max, L., Caruso, A. J., & Vandevenne, A. (1997). Decreased stuttering frequency during repeated readings: A motor learning perspective. *Journal of Fluency Disorders*, *21*, 1-17.
13. Caruso, A. J., & Max, L. (1997). Effects of aging on neuromotor processes of swallowing. *Seminars in Speech and Language*, *18*, 181-192.
12. Caruso, A. J., McClowry, M. T., & Max, L. (1997). Age-related effects on speech fluency. *Seminars in Speech and Language*, *18*, 171-180.
11. Max, L., & Caruso, A. J. (1997). Contemporary techniques for establishing fluency in the treatment of adults who stutter. *Contemporary Issues in Communication Science and Disorders*, *24*, 45-52.
10. Max, L., De Bruyn, W., & Steurs, W. (1997). Intelligibility of oesophageal and tracheo-oesophageal speech: Preliminary observations. *European Journal of Disorders of Communication*, *32*, 429-440.
9. Max, L., & Mueller, P. B. (1996). Speaking F₀ and cepstral periodicity analysis of conversational speech in a 105-year-old woman: Variability of aging effects. *Journal of Voice*, *10*, 245-251.
8. Max, L., Steurs, W., & De Bruyn, W. (1996). Vocal capacities in esophageal and tracheoesophageal speakers. *The Laryngoscope*, *106*, 93-96.
7. Vandevenne, A., Max, L., & Caruso, A. J. (1996). Adaptatie van stotteren: Toenemende motorische vaardigheid in de spraakproductie? [Stuttering adaptation: Improvements in speech motor skills?]. *Logopedie*, *9* (5), 23-28.
6. Vandevenne, A., & Max, L. (1996). Etiologie en behandeling van stotteren bij zeer jonge kinderen: Een leidraad voor (para)medici [Etiology and treatment of stuttering in young children: Information and guidelines for health care professionals]. *Het Kind*, *3/96*, 131-147.
5. Max, L. (1995). Betrouwbaarheid van een Nederlandstalige dichotische luistertest met cijfers [Reliability of a Dutch dichotic listening test with digits]. *Stem-, Spraak- en Taalpathologie*, *4*, 115-131.

4. Max, L. (1994). Onvloeiende spraak bij mentaal gehandicapte kinderen: Theoretische beschouwingen, diagnostische procedure en therapeutische consequenties [Dysfluent speech in mentally retarded children: theoretical considerations, diagnostic procedure and treatment implications]. *Tijdschrift voor Orthopedagogiek*, 33, 568-578.
3. Max, L., & Hermans, B. (1994). Perceptie van de bijdrage van aanwezigheid in een zelfhulpgroep door volwassen stotteraars [Adult stutterers' perception of the effects of participation in a self-help group]. *Tijdschrift voor Logopedie en Audiologie*, 24, 131-136.
2. Max, L., & D'Haese, P. (1994). Digitale realisatie van een Nederlandstalige dichotische luistertest met cijfers [Digital realization of a Dutch dichotic listening test with digits]. *Tijdschrift voor Logopedie en Audiologie*, 24, 36-42.
1. Max, L. (1993). Kritische bedenkingen bij de Hausdorfer-stottertherapie [A critical review of the Hausdorfer approach to the treatment of stuttering]. *Logopedie*, 6, 43-47.

Book Chapters (R = peer-reviewed)

6. Balasubramanian, V., & Max, L. (2005). Hemispheric processing of prosody. In J. Syka & M. M. Merzenich (Eds.), *Plasticity and signal representation in the auditory system* (pp. 235-240). Wien: Springer.
5. Max, L. (2004). Stuttering and internal models for sensorimotor control: A theoretical perspective to generate testable hypotheses. In B. Maassen, R. Kent, H. F. M. Peters, P. van Lieshout, & W. Hulstijn (Eds.), *Speech motor control in normal and disordered speech* (pp. 357-388). Oxford, UK: Oxford University Press. (R)
4. Max, L. (2001). Stuttering as a neuromotor disorder: Identifying the mechanisms. In B. Maassen, W. Hulstijn, R. Kent, H. F. M. Peters, & P. H. H. M. van Lieshout (Eds.), *Speech motor control in normal and disordered speech* (pp. 303-306). Nijmegen, The Netherlands: Vantilt.
3. Earnest, M. M., & Max, L. (2001). Maxillary and mandibular morphometry and the relation to articulatory kinematics. In B. Maassen, W. Hulstijn, R. Kent, H. F. M. Peters, & P. H. H. M. van Lieshout (Eds.), *Speech motor control in normal and disordered speech* (pp. 134-137). Nijmegen, The Netherlands: Vantilt.
2. Caruso, A. J., Max, L., & McClowry, M. T. (1999). Perspectives on stuttering as a motor speech disorder. In A.J. Caruso & E.A. Strand (Eds.), *Clinical management of motor speech disorders in children* (pp. 319-344). New York: Thieme.
1. Caruso, A. J., & Max, L. (1997). Applications of motor learning theory to stuttering research. In W. Hulstijn, H.F.M. Peters & P.H.H.M. Van Lieshout (Eds.), *Speech production: Motor control, brain research and fluency disorders* (pp. 213-220). Amsterdam: Elsevier Science.

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9. Civier, O., Bullock, D., Max, L., & Guenther, F.H. (2011). Dopamine excess may delay selection of syllabic motor programs: a modeling study of stuttering. *Proceedings of the 17th International Congress of Phonetic Sciences*, Hong Kong.
8. Civier, O., Bullock, D., Max, L., & Guenther, F.H. (2011). A neural modeling study of stuttering and fluency enhancement by drugs that partially block dopamine action. *Proceedings of the 9th Congress for People Who Stutter*, Buenos Aires, Argentina.
7. Max, L., Daniels, J. C., Curet, K. M., & Cronin, K. L. (2008). Modulation of auditory and somatosensory processing during the planning of speech movements. *Proceedings of the 8th International Speech Production Seminar*. Strasbourg, France. (R)
6. Max, L., Gracco, V. L., Guenther, F. H., Ghosh, S. S., & Wallace, M. E. (2004). A sensorimotor model of stuttering: Insights from the neuroscience of motor control. In A. Packman, A. Meltzer, & H.F.M. Peters (Eds.), *Proceedings of the 4th World Congress on Fluency Disorders* (pp. 353-360). Nijmegen, The Netherlands: University of Nijmegen Press. (R)
5. Max, L., Gracco, V. L., & Caruso, A. J. (2004). Kinematic event sequencing in stuttering and nonstuttering adults. In A. Packman, A. Meltzer, & H.F.M. Peters (Eds.), *Proceedings of the 4th World Congress on Fluency Disorders* (pp. 315-322). Nijmegen, The Netherlands: University of Nijmegen Press. (R)
4. Max, L., Wallace, M. E., & Vincent, I. (2003). Sensorimotor adaptation to auditory perturbations during speech: Acoustic and kinematic experiments. In M.J. Solé, D. Recasens, & J. Romero (Eds.), *Proceedings of the 15th International Congress of Phonetic Sciences* (pp. 1053-1056). Barcelona, Spain.
3. Max, L., & Glass, N. P. (2001). Relative timing of oral and laryngeal speech movements in individuals who stutter. In H.-G. Bosshardt, J. S. Yaruss, & H. F. M. Peters (Eds.), *Fluency Disorders: Theory, research, treatment and self-help (Proceedings of the Third World Congress on Fluency Disorders, Nyborg, Denmark)* (pp. 78-82). Nijmegen, The Netherlands: University of Nijmegen Press.
2. Max, L. (1999). Kinematics of lip and jaw closing movements during bilabial stop consonant production: Effects of utterance length and word position. *Proceedings of the XIVth International Congress of Phonetic Sciences* (pp. 2423-2424), August 1999, San Francisco.
1. Max, L., & Caruso, A.J. (1998). Motor learning and stuttering: Perceptual, acoustic, and kinematic analyses. In E.C. Healey & H.F.M. Peters (Eds.), *Proceedings of the Second World Congress on Fluency Disorders* (pp. 51-53), San Francisco, CA.

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26. Max, L., & Daliri, A. (2011). Differentiating between afferent and efferent deficits in the sensorimotor mechanisms underlying stuttering. *Stem-, Spraak- en Taalpathologie*, 17, S34.
25. Civier, O., Bullock, D., Max, L., & Guenther, F. (2011). Impairment of the basal ganglia thalamo-cortical loop may lead to dysfluencies: simulating neural impairments to syllable-level command

- generation in stuttering. *Stem-, Spraak- en Taalpathologie*, 17, S36.
24. Max, L., Kim, K. S., & Huang, R. (2011). Quantifying feedforward versus feedback control through kinematic analyses of unperturbed speech movements. *Stem-, Spraak- en Taalpathologie*, 17, S65.
 23. Max, L., Daniels, J. C., & Curet, K. M. (2008). Modality-specific modulation of sensory processing prior to the onset of voluntary movements: illustrations from speech motor control. Program No. 319.2. *2008 Neuroscience Meeting Planner*. Washington, DC: Society for Neuroscience, 2008. Online.
 22. Prokopenko, R., Max, L., & Flanagan, J. R. (2007). Prediction of self-generated movement consequences in individuals who stutter. Program No. 453.10. *2007 Neuroscience Meeting Planner*. San Diego, CA: Society for Neuroscience, 2007. Online.
 21. Prokopenko, R., Max, L., & Flanagan, J. R. (2007). Adaptation to new sensorimotor mappings in individuals who stutter. *Motor Control*, 11, S207-S208.
 20. Max, L., Wallace, M. E., & Feng, Y. (2006). Kinesthetic and electromyographic effects of triceps brachii tendon vibration during constrained vs. unconstrained arm positions. Program No. 656.5/AA25. *2006 Neuroscience Meeting Planner*. Atlanta, GA: Society for Neuroscience, 2006. Online.
 19. Max, L. (2006). Modulation of auditory processing during the planning of speech movements. *Stem-, Spraak- en Taalpathologie*, 14, Suppl. June, 43.
 18. Feng, Y. Q., Max, L., & Mealy T. (2006). Accuracy of camera-based motion tracking system for orofacial speech and nonspeech movements. *Stem-, Spraak- en Taalpathologie*, 14, Suppl. June, 51.
 17. Max, L. (2005). Central processing of afferent inputs during movement planning. Program No. 852.7. *2005 Abstract Viewer/Itinerary Planner*. Washington, DC: Society for Neuroscience, 2005. Online.
 16. Max, L., & Wallace, M. E. (2003, August). Measuring speech movements: System comparisons and multimedia demonstrations. *Asha Leader*, 8, 217.
 15. Wallace, M. E., & Max, L. (2003, August). Kinematic adjustments during sensorimotor adaptation to formant feedback shifts. *Asha Leader*, 8, 215.
 14. Max, L., & Wallace, M. E. (2002, August). Internal models of the articulatory system: Adaptation to formant shifts [abstract]. *Asha Leader*, 7, 92.
 13. Earnest, M. E., Max, L., & McAlpine, M. (2002, August). Young children's articulatory responses to altered auditory feedback. *Asha Leader*, 7, 92.
 12. Vincent, I., & Max, L. (2002, August). Effects of formant and F₀ manipulations on the speech of adults who stutter. *Asha Leader*, 7, 99.
 11. Hao, G., Xue, S. A., Max, L., & Vaz, P. (2002, August). Acoustic features of elderly speakers' consonant-to-consonant coarticulation. *Asha Leader*, 7, 93.
 10. Balasubramanian, V., & Max, L. (2002, August). Crossed apraxia of speech: A psycholinguistic study. *Asha Leader*, 7, 146.

9. Max, L. (2001). Mechanisms of neuromotor control in stuttering and nonstuttering adults: Kinematic analyses of speech, orofacial nonspeech, and finger movements. *Dissertation Abstracts International, B 61/07*, 3554.
8. Max, L., & Yudman, E. M. (2000, August). Rhythmic timing across motor systems in stuttering and nonstuttering adults [Abstract]. *ASHA Leader, 5*, 167.
7. Balasubramanian, V., Max, L., Bendes, A., McClary, M., Golden, M., Kutenplon, S., & Acton, L. (2000, August). Hemispheric processing of multiple prosodic cues in brain damaged patients [Abstract]. *ASHA Leader, 5*, 217.
6. Max, L. (1999). Adjustments in kinematic parameters of bilabial articulatory gestures during repeated readings of the same passage [Abstract]. *Journal of the Acoustical Society of America, 105*, 1356.
5. Mueller, P. B., Xue, S. A., & Max, L. (1998, November). Speaking fundamental frequency of the oldest living person: Jeanne Calmet [Abstract]. *ASHA Leader, 3*, 70.
4. Max, L., & Caruso, A. J. (1997, August). Kinematic analyses of bilabial closing and opening movements in adults who stutter [Abstract]. *ASHA Leader, 2*, 125.
3. Vandevenne, A., Max, L., & Caruso, A. J. (1996, August). Variability of children's stuttering frequency across consecutive days: Preliminary observations [Abstract]. *ASHA Leader, 1*, 79.
2. Max, L., Caruso, A. J., & Vandevenne, A. (1995, October). Reduction of Dutch speakers' stuttering frequency: Adaptation versus unison readings [Abstract]. *Asha, 37*, 64.
1. Caruso, A. J., Max, L., McClowry, M. T., & Chodzko-Zajko, W. J. (1995, October). Cognitively challenging sentences: Evidence of temporal inflexibility in stuttering [Abstract]. *Asha, 37*, 64.

Doctoral Dissertation

Max, L. (2000). *Mechanisms of neuromotor control in stuttering and nonstuttering adults: Kinematic analyses of speech, orofacial nonspeech, and finger movements*. Doctoral dissertation, Kent State University, Kent, OH.

Presentations at professional meetings (Key: I = invited)

111. Maffett, D., & Max, L. (2012, November). *Real-time feedback is critical for speech sensorimotor adaptation*. Presented at the annual convention of the American Speech-Language-Hearing Association, Atlanta, GA.
110. Daliri, A., & Max, L. (2012, November). *Generalized sensorimotor difficulties in children and adults who stutter*. Presented at the annual convention of the American Speech-Language-Hearing Association, Atlanta, GA.
109. Maffett, D., & Max, L. (2012, October). *Delays in the auditory feedback eliminate sensorimotor adaptation in speech production*. Poster presented at the annual meeting of the Society for

Neuroscience, New Orleans, LA.

108. Max, L. (2012, March). *Neural control and sensorimotor mechanisms in stuttering: perspectives and experiments*. Keynote address at the 3rd European Symposium on Fluency Disorders, Antwerp, Belgium. (I)
107. Daliri, A., Manyak, A., Maffet, D., & Max, L. (2012, February). *Modulation of auditory responses during speech planning: high-density EEG analyses*. Poster presented at the biennial Conference on Motor Speech, Santa Rosa, CA.
106. Daliri, A., Manyak, A., Maruthy, S., Maffet, D., & Max, L. (2011, November). *High-density EEG of stuttering adults' auditory responses during speech planning*. Poster presented at the annual convention of the American Speech-Language-Hearing Association, San Diego CA.
105. Balasubramanian, V., Bhatnagar, S., Chang, S.-E., De Nil, L., Kadri, M., Max, L., Theys, C., van Borsel, J. (2011, November). *Acquired stuttering: theoretical, experimental, clinical issues*. Seminar presented at the annual convention of the American Speech-Language-Hearing Association, San Diego CA.
104. Kim, K., & Max, L. (2011, November). *Relationship among kinematic landmarks in the speech movements of stuttering and nonstuttering adults*. Poster presented at the annual meeting of the Society for Neuroscience, Washington DC.
103. Daliri, A., & Max, L. (2011, November). *Sensorimotor learning in stuttering and typically developing children*. Poster presented at the annual meeting of the Society for Neuroscience, Washington DC.
102. Gracco, V. L., Frost, S., Mencl, E., & Max, L. (2011, November). *Persistent developmental stuttering as a disorder of neural adaptation*. Poster presented at the Neurobiology of Language Conference, Annapolis, MD.
101. Civier, O., Bullock, D., Max, L., & Guenther, F. H. (2011). *Both dopamine excess and white matter impairment induce dysfluencies in a neural queuing model of multi-syllabic speech*. Presented at the the 9th Oxford Dysfluency Conference, Oxford, UK.
100. Civier, O., Bullock, D., Max, L., & Guenther, F. H. (2011, August). *Dopamine excess may delay selection of syllabic motor programs: a modeling study of stuttering*. Presented at the 17th International Congress of Phonetic Sciences, Hong Kong.
99. Daliri, A., Prokopenko, R. A., & Max (2011, June). *Sensory and motor components of jaw movement precision in adults who stutter*. Poster presented at the 9th International Seminar on Speech Production, Montreal, Canada.
98. Kim, K. S., & Max, L. (2011, June). *Quantifying feedforward versus feedback control through kinematic analyses of unperturbed speech movements*. Poster presented at the 9th International Seminar on Speech Production, Montreal, Canada.
97. Civier, O., Bullock, D. H., Max, L., & Guenther, F. H. (2011, June). *Impairment of the basal ganglia thalamo-cortical loop may lead to dysfluencies: simulating neural impairments to syllable-level command generation in stuttering*. Poster presented at the 6th International Conference on

Speech Motor Control, Groningen, The Netherlands.

96. Max, L., Daliri, A., & Prokopenko, R. A. (2011, June). *Differentiating between afferent and efferent deficits in the sensorimotor mechanisms underlying stuttering*. Presented at the 6th International Conference on Speech Motor Control, Groningen, The Netherlands.
95. Kim, K. S., & Max, L. (2011, June). *Quantifying feedforward versus feedback control through kinematic analyses of unperturbed speech movements*. Poster presented at the 6th International Conference on Speech Motor Control, Groningen, The Netherlands.
94. Civier, O., Bullock, D., Max, L., & Guenther, F. H. (2011, May). *Simulating neural impairments to syllable-level command generation in stuttering*. Poster presented at the World Congress for People who Stutter, Buenos Aires, Argentina.
93. Max, L., & Daliri, A. (2011, April). *Relation between somatosensory detection accuracy and efferent control in the human jaw*. Poster presented at the annual meeting of Society for the Neural Control of Movement, San Juan, Puerto Rico.
92. Kim, K. S., Huang, R. & Max, L. (2010, November). *Kinematic analyses of feedforward versus feedback control in speech production*. Poster presented at the annual meeting of the American Speech-Language-Hearing Association, Philadelphia, PA.
91. Maruthy, M., Baldwin, C., & Max, L. (2010, November). *Sensorimotor adaptation in persons who stutter: Generalization and interference*. Poster presented at the annual meeting of the American Speech-Language-Hearing Association, Philadelphia, PA.
90. Maruthy, S., & Max, L. (2010, November). *Auditory processing during speech planning in adults who stutter*. Poster presented at the annual meeting of the American Speech-Language-Hearing Association, Philadelphia, PA.
89. Maruthy, S., Kim, K. S., Baldwin, C. J., Feng, Y., & Max, L. (2010, November). *Experimental variables affecting speech sensorimotor adaptation to formant-shifted auditory feedback*. Poster presented at the annual meeting of the Society for Neuroscience, San Diego, CA.
88. Daliri, A., Prokopenko, R. A., & Max, L. (2010, November). *Differentiating between afferent and efferent deficits in the sensorimotor mechanisms underlying stuttering*. Poster presented at the annual meeting of the Society for Neuroscience, San Diego, CA.
87. Balasubramanian, V., Kadri, M., Huang, R., & Max, L. (2010, November). *Factors influencing the loci of dysfluency in neurogenic and persistent developmental stuttering*. Poster presented at the 2nd Neurobiology of Language Conference, Sand Diego, CA.
86. Max, L., Ito, T., Daliri, A., Baldwin, C. J., & Rogan-Quigley, K. A. (2010, April). *Learning of speech and nonspeech sensorimotor transformations by individuals who stutter*. Paper presented at the 2nd European Symposium on Fluency Disorders, Antwerp, Belgium.
85. Daliri, A., & Max, L. (2010, April). *Computational neuroscience of stuttering: modeling and simulations of dopaminergic dysfunction*. Poster presented at the 2nd European Symposium on Fluency Disorders, Antwerp, Belgium.
84. Max, L., & Baldwin, C. J. (2010, April). *Retention tests confirm contributions of motor learning to*

- stuttering adaptation*. Poster presented at the 2nd European Symposium on Fluency Disorders, Antwerp, Belgium.
83. Kadri, M., Balasubramanian, V., Huang, R., & Max, L. (2010, April). *Loci of dysfluency in acquired neurogenic versus persistent developmental stuttering*. Poster presented at the 2nd European Symposium on Fluency Disorders, Antwerp, Belgium.
 82. Daliri, A., & Max, L. (2010, March). *Computational modeling of basal ganglia impairments in developmental stuttering*. Poster presented at the Biennial Conference on Motor Speech: Motor Speech Disorders & Speech Motor Control, Savannah, GA.
 81. Max, L., & Feng, Y. (2009, November). *Auditory and somatosensory contributions to the neural control of speech movements*. Poster presented at the annual meeting of the Society for Neuroscience, Chicago, IL.
 80. Balasubramanian, V., & Max, L. (2009, October). *Lesion sites in acquired neurogenic stuttering: implications for neural models of fluent speech*. Poster presented at the annual meeting Academy of Aphasia, Boston, MA.
 79. Max, L., Baldwin, C. J., Cronin, K. L., & Flanagan, J. R. (2009, August), *Speech and nonspeech sensorimotor learning in individuals who stutter*. Paper presented at the 6th World Congress on Fluency Disorders, Rio de Janeiro, Brazil.
 78. Civier, O., Bullock, D., Max, L., & Guenther, F. H. (2009, August). *Simulating neural impairments to syllable-level command generation in stuttering*. Poster presented at the 6th World Congress on Fluency Disorders, Rio de Janeiro, Brazil.
 77. Cronin, K.L., Cann, C., Leavens, T., Musiek, F. E., & Max, L. (2009, August). *Electrophysiological measures of auditory responses in stuttering versus nonstuttering children*. Paper presented at the 6th World Congress on Fluency Disorders, Rio de Janeiro, Brazil.
 76. Balasubramanian, V., Cronin, K., & Max, L. (2009, August). *Dysfluency levels in various speaking conditions in acquired neurogenic stuttering*. Paper presented at the 6th World Congress on Fluency Disorders, Rio de Janeiro.
 75. Max, L., & Huang, R. Y. (2009, July). *Correspondence between initial kinematics and final position in orofacial speech movements*. Poster presented at Progress in Motor Control VII, Marseille, France.
 74. Max, L., & Feng, Y. (2009, April). *Sensorimotor control of speech: Adaptation to simultaneous auditory and kinesthetic perturbations*. Poster presented at the annual meeting of the Society for the Neural Control of Movement, Waikoloa, HI.
 73. Max, L., Daniels, J. C., Curet, K. M., & Cronin, K. L. (2008, December). *Modulation of auditory and somatosensory processing during the planning of speech movements*. Paper presented at the 8th International Seminar on Speech Production, Strasbourg, France.
 72. Baldwin, C.J., & Max, L. (2008, November). *Sensorimotor adaptation to formant-shifted auditory feedback: stuttering versus nonstuttering adults*. Paper presented at the annual meeting of the American Speech-Language-Hearing Association, Chicago, IL.

71. Baldwin, C.J., Cronin, K.L., Prokopenko, R.A., Flanagan, J.R., & Max, L. (2008, November). *Sensorimotor learning in stuttering children: non-speech movements with non-veridical feedback*. Paper presented at the annual meeting of the American Speech-Language-Hearing Association, Chicago, IL.
70. Cronin, K.L., Cann, C., Leavens, T., Musiek, F., & Max, L. (2008, November). *Brainstem and cortical auditory evoked potentials in children who stutter*. Poster presented at the annual meeting of the American Speech-Language-Hearing Association, Chicago, IL.
69. Cronin, K.L., Cann, C., Leavens, T., & Max, L. (2008, November). *A comprehensive overview of auditory processing research with individuals who stutter*. Poster presented at the annual meeting of the American Speech-Language-Hearing Association, Chicago, IL.
68. Balasubramanian, V., & Max, L. (2008, November). *Adaptation, unison reading, and altered auditory feedback in neurogenic stuttering*. Paper presented at the annual meeting of the American Speech-Language-Hearing Association, Chicago, IL.
67. Max, L., Daniels, J.C., & Curet, K. (2008, November). *Modality-specific modulation of sensory processing prior to the initiation of voluntary movements: illustration from speech motor control*. Paper presented at the annual meeting of the Society for Neuroscience, Washington D.C.
66. Balasubramanian, V., & Max, L. (2008, October). *Speech production in an adult with aphasia: an altered auditory feedback study*. Poster presented at the 46th annual meeting of the Academy of Aphasia, Turku, Finland.
65. Max, L. (2008, May). *Identifying the critical sensorimotor mechanisms associated with atypical neural functioning in individuals who stutter*. Paper presented at the symposium Neural Bases of Stuttering, Paris, France.
64. Baldwin, C.J., & Max, L. (2008, April). *Sensorimotor adaptation when speaking with formant-shifted auditory feedback: stuttering vs nonstuttering adults*. Poster presented at the annual meeting of the Society for the Neural Control of Movement, Naples, FL.
63. Baldwin, C.J., Prokopenko, R.A., Flanagan, J. R., & Max, L. (2008, March). *Learning sensorimotor mappings for speech and limb movements in adults who stutter*. Paper presented at the Biennial Conference on Motor Speech: Motor Speech Disorders & Speech Motor Control, Monterey, CA.
62. Prokopenko, R.A., Max, L., & Flanagan, J.R. (2007, November). *Prediction of self-generated movement consequences in individuals who stutter*. Paper presented at the annual meeting of the Society for Neuroscience, San Diego, CA.
61. Prokopenko, R.A., Max, L., & Flanagan, J.R. (2007, August). *Adaptation to new sensorimotor mappings in individuals who stutter*. Poster presented at Progress in Motor Control VI, Santos, Brazil.
60. Balasubramanian, V., & Max, L. (2007, June). *Absence of altered auditory feedback effect in the speech of an aphasic with acquired stuttering*. Poster presented at the Theoretical and Experimental Neuropsychology conference, Montreal, Canada.

59. Daniels, J., & Max, L. (2007, March). *Central afferent responses to sensory stimulation prior to the initiation of voluntary movements*. Poster presented at the annual meeting of the Society for the Neural Control of Movement, Seville, Spain.
58. Wallace, M., Max, L., & Feng, Y. (2007, March). *Effects of feedback, immobilization, and distraction on vibration-induced movement illusions and muscle activity*. Poster presented at the annual meeting of the Society for the Neural Control of Movement, Seville, Spain.
57. Feng, Y., Max, L., & Mealy T. (2006, November). *Video-tracking of orofacial movements: A high-precision system for research and clinic*. Presented at the annual convention of the American Speech-Language-Hearing Association, Chicago, IL.
56. Max, L., Wallace, M., & Feng, Y. (2006, October). *Kinesthetic and electromyographic effects of triceps brachii tendon vibration during constrained vs unconstrained arm positions*. Poster presented at the annual meeting of the Society for Neuroscience, Washington, DC.
55. Max, L. (2006, June). *Modulation of auditory processing during the planning of speech movements*. Poster session presented at the 5th International Conference on Speech Motor Control, Nijmegen, The Netherlands.
54. Feng, Y., Max, L., & Mealy T. (2006, June). *Accuracy of a camera-based motion tracking system for orofacial speech and nonspeech movements*. Poster session presented at the 5th International Conference on Speech Motor Control, Nijmegen, The Netherlands.
53. Max, L. (2005, November). *Central processing of afferent inputs during movement planning*. Poster presented at the annual meeting of the Society for Neuroscience, Washington, DC.
52. Max, L. (2005, August). *Central processing of afferent inputs during movement planning*. Poster presented at Progress in Motor Control V, State College, PA.
51. Ostry, D.J., Gomi, H., Gracco, V.L., & Max, L. (2005, April). *What we learn about sensorimotor interaction from studies of speech motor control*. Annual meeting of the Society for the Neural Control of Movement, Key Biscayne, FL.
50. Wallace, M. E., & Max, L. (2004, June). *Internal models of the vocal tract revealed by articulatory adaptation to formant-shifted auditory feedback*. Poster presented at the conference From Sound to Sense: 50+ Years of Discoveries in Speech Communication, Massachusetts Institute of Technology, Boston, MA.
49. Feng, Y., Max, L., Hao, G. J., & Xue, S. A. (2004, June). *A more subtle form of anticipatory coarticulation: Transvocalic consonant-to-consonant articulatory adjustments*. Poster presented at the conference From Sound to Sense: 50+ Years of Discoveries in Speech Communication, Massachusetts Institute of Technology, Boston, MA.
48. Max, L. (2004, March). *Are vocal tract aerodynamic consequences predicted during the planning of orofacial speech movements?* Poster presented at the annual meeting of the Society for the Neural Control of Movement, Sitges, Spain.

47. Max, L., & Wallace, M. E. (2003, November). *Measuring speech movements: System comparisons and multimedia demonstrations*. Seminar presented at the annual convention of the American Speech-Language-Hearing Association, Chicago, IL. (I)
46. Wallace, M. E., & Max, L. (2003, November). *Kinematic adjustments during sensorimotor adaptation to formant feedback shifts*. Paper presented at the annual convention of the American Speech-Language-Hearing Association, Chicago, IL.
45. Max, L., Gracco, V. L., Guenther, F. H., Ghosh, S., & Wallace, M. E. (2003, August). *A sensorimotor model of stuttering: Insights from the neuroscience of motor control*. Paper presented at the 4th World Congress on Fluency Disorders, Montreal, Canada.
44. Max, L., Gracco, V. L., & Caruso, A. J. (2003, August). *Kinematic event sequencing in stuttering adults: Speech, orofacial, and finger movements*. Poster session presented at the 4th World Congress on Fluency Disorders, Montreal, Canada.
43. Balasubramanian, V., & Max, L. (2003, August). *Altered auditory feedback and the adaptation effect in acquired neurogenic stuttering*. Paper presented at the 4th World Congress on Fluency Disorders, Montreal, Canada.
42. Max, L., & Wallace, M. E. (2003, August). *Sensorimotor adaptation to auditory perturbations during speech: Acoustic and kinematic experiments*. Paper presented at the 15th International Congress of Phonetic Sciences, Barcelona, Spain.
41. Wallace, M. E., & Max, L. (2003, August). *Kinematic analyses of articulatory adaptation to formant-shifted auditory feedback*. Poster session presented at the 15th International Congress of Phonetic Sciences, Barcelona, Spain.
40. Balasubramanian, V., & Max, L. (2003, July). *Hemispheric processing of prosody*. Paper presented at the the Symposium on Plasticity of the central Auditory system and Processing of Complex Acoustic Signals, Prague, Czech Republic.
39. Balasubramanian, V., & Max, L. (2003, June). *Crossed apraxia of speech: A case report*. Paper presented at the Theoretical and Experimental Neuropsychology conference, Montreal, Canada.
38. Max, L., & Wallace, M. E. (2003, April). *Adaptive planning of orofacial speech movements with updated internal models of the vocal tract*. Poster session presented at the 13th Annual Meeting of the Society for the Neural Control of Movement, Santa Barbara, C.A.
37. Max, L., & Wallace, M. E. (2002, November). *Internal models of the articulatory system: Adaptation to formant shifts*. Paper presented at the annual convention of the American Speech-Language-Hearing Association, Atlanta, GA.
36. Earnest, M. E., Max, L., & McAlpine, M. (2002, November). *Young children's articulatory responses to altered auditory feedback*. Poster presented at the annual convention of the American Speech-Language-Hearing Association, Atlanta, GA.
35. Vincent, I., & Max, L. (2002, November). *Effects of formant and F_0 manipulations on the speech of adults who stutter*. Poster presented at the annual convention of the American Speech-Language-Hearing Association, Atlanta, GA.

34. Hao, G., Xue, S. A., Max, L., & Vaz, P. (2002, November). *Acoustic features of elderly speakers' consonant-to-consonant coarticulation*. Paper presented at the annual convention of the American Speech-Language-Hearing Association, Atlanta, GA.
33. Balasubramanian, V., & Max, L. (2002, November). *Crossed apraxia of speech: A psycholinguistic study*. Paper presented at the annual convention of the American Speech-Language-Hearing Association, Atlanta, GA.
32. Balasubramanian, V., Max, L., & Van Borsel, J. (2002, June). *Re-emergence of stuttering following right frontal and bilateral pontine lesion: A case study*. Poster session presented at the Theoretical and Experimental Neuropsychology conference, Montréal, Canada.
31. Max, L., & Hine, L. S. (2002, March). *Articulatory and phonatory responses to independent manipulation of formant- and fundamental frequency-related auditory feedback*. Poster session presented at the 11th Biennial Conference on Motor Speech: Motor Speech Disorders & Speech Motor Control, Williamsburg, VA.
30. Max, L., & Earnest, M. E. (2001, November). *Differential kinematic effects of consonant voicing for various consonants and articulators*. Paper presented at the annual convention of the American Speech-Language-Hearing Association, New Orleans, LA.
29. Max, L., Hao, G., & Xue, S. A. (2001, November). *Acoustic consequences of consonant-to-consonant coarticulation*. Poster presented at the annual convention of the American Speech-Language-Hearing Association, New Orleans, LA.
28. Max, L., Smith, A., & Hine, L. S. (2001, November). *Oral-laryngeal coordination in stuttering adults: Acoustic and physiological analyses*. Paper presented at the annual convention of the American Speech-Language-Hearing Association, New Orleans, LA.
27. Max, L., & Yudman, E. M. (2001, November). *Speech and nonspeech rhythmic timing in stuttering individuals: Variability analyses*. Poster session presented at the annual convention of the American Speech-Language-Hearing Association, New Orleans, LA.
26. Balasubramanian, V., Van Borsel, J., Max, L., Off, C., & Richardson, D. (2001, November). *Acquired neurogenic stuttering: Psycholinguistic characteristics and fluency-enhancing conditions*. Paper presented at the annual convention of the American Speech-Language-Hearing Association, New Orleans, LA.
25. Earnest, M. M., & Max, L. (2001, June). *Maxillary and mandibular morphometry and the relation to articulatory kinematics*. Poster session presented at the 4th International Speech Motor Conference, Nijmegen, The Netherlands.
24. Max, L. (2001, June). *Stuttering as a neuromotor disorder: Identifying the mechanisms*. Paper presented at the 4th International Speech Motor Conference, Nijmegen, The Netherlands.
23. Max, L., & Yudman, E. M. (2000, November). *Rhythmic timing across motor systems in stuttering and nonstuttering adults*. Paper presented at the annual convention of the American Speech-Language-Hearing Association, Washington, D.C.

22. Balasubramanian, V., Max, L., Bendes, A., McClary, M., Golden, M., Kutenplon, S., & Acton, L. (2000, November). *Hemispheric processing of multiple prosodic cues in brain damaged patients*. Poster session presented at the annual convention of the American Speech-Language-Hearing Association, Washington, D.C.
21. Max, L., Caruso, A. J., & Gracco, V. L. (2000, August). *Neuromotor control in stuttering: Speech, orofacial nonspeech, and finger movements*. Paper presented at the Third World Congress on Fluency Disorders, Nyborg, Denmark.
20. Max, L. (2000, August). *Coarticulation in individuals who stutter: Perceptual, acoustic, and kinematic analyses*. Paper presented at the Third World Congress on Fluency Disorders, Nyborg, Denmark.
19. Max, L., & Glass, N. P. (2000, August). *Relative timing of oral/laryngeal speech movements in individuals who stutter*. Poster session presented at the Third World Congress on Fluency Disorders, Nyborg, Denmark.
18. Max, L. (2000, April). *A century of sensorimotor and neurological research on stuttering: Reviewing classical versus recent perspectives and identifying some clinical implications*. Seminar presented at the annual convention of the New Jersey Speech-Language-Hearing Association, Atlantic City, NJ. (I)
17. Max, L., & Murphy, K. R. (1999, November). *Acoustic analyses of anticipatory coarticulation in individuals who stutter*. Poster session presented at the Annual Convention of the American Speech-Language-Hearing Association, San Francisco, CA.
16. Max, L., & Kluetz, B. A. (1999, November). *Anticipatory coarticulation in stuttering adults' fluent speech: Perceptual data*. Poster session presented at the Annual Convention of the American Speech-Language-Hearing Association, San Francisco, CA.
15. Max, L., Stasi, J., Glass, N. P., Behar, A. L., Smith, M., & Pagano, A. (1999, November). *Stuttering adaptation and its retention: Repeated versus novel reading material*. Paper presented at the annual convention of American Speech-Language-Hearing Association, San Francisco, CA.
14. Max, L., Blandine, N., DiStefano, D., Don, C., Marsh, K., & Gracco, V. L. (1999, November). *Investigating the intra-individual consistency of laryngeal difficulties during moments of stuttering*. Poster session presented at the Annual Convention of the American Speech-Language-Hearing Association, San Francisco, CA.
13. Max, L. (1999, August). *Kinematics of lip and jaw closing movements during bilabial stop consonant production: Effects of utterance length and word position*. Paper presented at the XIVth International Congress of Phonetic Sciences, San Francisco, CA.
12. Max, L. (1999, March). *Adjustments in kinematic parameters of bilabial articulatory gestures during repeated readings of the same passage*. Paper presented at the joint 137th meeting of the Acoustical Society of America and the 2nd convention of the European Acoustics Association: Forum Acusticum. Berlin, Germany.

11. Mueller, P. B., Xue, S. A., & Max, L. (1998, November). *Speaking fundamental frequency of the oldest living person: Jeanne Calmet*. Poster session presented at the annual convention of the American Speech-Language-Hearing Association, San Antonio, TX.
10. Max, L. (1998, February). *From psycholinguistics to neurobiology: Recent perspectives regarding the etiology of stuttering and their implications for clinical management*. Seminar presented at the Third Route 66 Conference on Communication Disorders, University of Tulsa, OK. (I)
9. Max, L., & Caruso, A. J. (1997, November). *Kinematic analysis of bilabial closing/opening movements in adults who stutter*. Paper presented at the annual convention of the American Speech-Language-Hearing Association, Boston, MA.
8. Max, L., & Caruso, A. J. (1997, August). *Motor learning and stuttering: Perceptual, acoustic and kinematic analyses*. Mini-seminar presented at the Second World Congress on Fluency Disorders, San Francisco, CA.
7. Vandevenne, A., Max, L., & Caruso, A. J. (1996, November). *Variability of children's stuttering frequency across consecutive days*. Poster session presented at the annual convention of the American Speech-Language-Hearing Association, Seattle, WA.
6. Caruso, A. J., & Max, L. (1996, June). *Applications of motor learning to stuttering research*. Paper presented at the Third International Conference on Speech Motor Production and Fluency Disorders, Nijmegen, The Netherlands.
5. Caruso, A. J., Max, L., McClowry, M. T., Doyle, P. J., & McNeil, M. R. (1996, June). *Speech timing and coarticulation in stuttering, dysarthria and apraxia of speech: Perceptual data*. Poster session presented at the Third International Conference on Speech Motor Production and Fluency Disorders, Nijmegen, The Netherlands.
4. Mueller, P. B., Klich, R. J., & Max, L. (1996, April). *Computer analysis of the acoustic characteristics of the voice: Applications to clinical practice*. Mini-seminar presented at the annual convention of the Ohio Speech and Hearing Association, Toledo, OH.
3. Caruso, A. J., & Max, L. (1996, February). *Acoustic analysis of articulatory timing across speaking rates: Evidence against intergestural proportional invariance*. Poster session presented at the Eighth Biennial Conference on Motor Speech: Motor Speech Disorders and Speech Motor Control, Amelia Island, FL.
2. Max, L., Caruso, A. J., & Vandevenne, A. (1995, December). *Reduction of Dutch speakers' stuttering frequency: Adaptation vs unison readings*. Poster session presented at the Annual Convention of the American Speech-Language-Hearing Association, Orlando, FL.
1. Caruso, A. J., Max, L., McClowry, M. T., & Chodzko-Zajko, W. J. (1995, December). *Cognitively challenging sentences: Evidence of temporal inflexibility in stuttering*. Paper presented at the annual convention of the American-Speech-Language-Hearing Association, Orlando, FL.

Other invited presentations and guest lectures

22. Max, L. (2010, April). *Sensorimotor integration in speech production*. Université de Provence, Marseille, France.
21. Max, L. (2009, June). *Motor control and sensory processes in typical speech and stuttering*. University of Washington School of Medicine, Department of Otolaryngology Alumni Day, Seattle, WA.
20. Max, L. (2009, January). *When computers alter your speech, sensors track your tongue, and robots move your jaw: New approaches in speech motor control research*. Annual Open House, Department of Speech and Hearing Sciences, University of Washington, Seattle, WA.
19. Max, L. (2008, January). *New insights into the adaptive nature of sensorimotor integration: Applications in the neural control of speech movements*. Department of Speech and Hearing Sciences, University of Washington, Seattle, WA.
18. Max, L. (2007, November). *Neural control of speech and nonspeech movements in individuals who stutter*. Department of Cognitive and Neural Systems, Boston University, Boston, MA.
17. Max, L. (2007, November). *Electrophysiological and psychophysical studies of sensorimotor control in speech production*. School of Graduate Medical Education, Seton Hall University, South Orange, NJ.
16. Max, L. (2007, October). *Neural mechanisms underlying stuttering: A speech and nonspeech motor control approach*. Workshop of Speech Production and Motor Control, Haskins Laboratories, New Haven, CT.
15. Max, L. (2007, February). *Adaptive sensorimotor integration in the neural control of speech and nonspeech movements*. Department of Biobehavioral Sciences, Teachers College, Columbia University, New York, NY.
14. Max, L., & Corbera, S. (2006, November). *Electrophysiological techniques in the study of sensory and motor processes underlying speech production*. School of Graduate Medical Education, Seton Hall University, South Orange, NJ.
13. Max, L. (2006, November). *Sensorimotor interactions in the neural control of speech and nonspeech movements*. Department of Speech-Language Pathology & Audiology, New York University, New York, NY.
12. Max, L. (2005, June). *Current issues in the neural control of movement: Insights from sensorimotor interactions during speech production*. School of Graduate Medical Education, Seton Hall University, South Orange, NJ.
11. Max, L. (2005, April). *Planning speech movements: Acoustic, kinematic, and electrophysiological data*. Massachusetts Institute of Technology, Boston, MA.
10. Max, L. (2005, February). *Sensorimotor mechanisms in the neural control of speech and nonspeech movements*. University of Connecticut Health Center, Department of Neuroscience seminar series, Farmington, CT.

9. Max, L. (2002, December). *Sensorimotor mechanisms underlying stuttering: An overview of our recent empirical studies and theoretical perspectives*. Boston University Department of Cognitive and Neural Systems, Boston, MA.
8. Max, L. (2001, October). *Mechanisms of speech and nonspeech motor control in stuttering versus nonstuttering adults*. Haskins Laboratories, New Haven, CT.
7. Max, L. (2000, October). *Acoustic and kinematic measures of normal and disordered speech production: Some techniques, some data, and some opportunities*. University of Connecticut, Department of Linguistics.
6. Max, L. (1999, March). *Recente opvattingen en nieuwe ontwikkelingen in de diagnostiek en behandeling van stotteren bij kinderen [Recent perspectives and new developments in the diagnosis and treatment of stuttering in children]*. Workshop for Stichting Logopedie Fonds, Heerlen, The Netherlands.
5. Max, L. (1997, June). *Van psycholinguïstiek en fonologie tot motoriek en neurobiologie: Recent inzichten in de etiologie van stotteren [From psycholinguistics and phonology to motor control and neurobiology: Recent insights into the etiology of stuttering]*. Lecture for Stichting Logopedie Fonds, Maastricht, The Netherlands.
4. Max, L. (1997, June). *Diagnostiek en behandeling van stotteren bij kinderen: Strategieën en klinische procedures [Diagnosis and treatment of stuttering in children: Strategies and clinical procedures]*. Workshop for Stichting Logopedie Fonds, Maastricht, The Netherlands.
3. Max, L. (1994). *Onvloeiende spraak bij mentaal gehandicapte kinderen: Theoretische beschouwingen, diagnostische procedure en therapeutische consequenties [Dysfluent speech in mentally retarded children: theoretical considerations, diagnostic procedure and treatment implications]*. Workshop for Gehandicapten Instituut, Lummen, Belgium.
2. Guest lecturer, graduate course "Voice Disorders," University of Gent (Belgium) — (Sept. 1993 - June 1994).
1. Guest lecturer, graduate course "Fluency Disorders," University of Leuven (Belgium) — (September 1991 - May 1993).

Christi W. Miller

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CURRICULUM VITAE

EDUCATION

- | | |
|--------------------------|---|
| December 2012 (expected) | Ph.D. , Department of Speech and Hearing Sciences
The University of Washington, Seattle, WA
Advisor: Kelly Tremblay, Ph.D.
Co-advisor: Ruth Bentler, Ph.D. (U. of Iowa) |
| August 2001 | M.A. , Communication Sciences and Disorders
The University of Texas, Austin, TX
Advisor: Craig Champlin, Ph.D. |
| December 1998 | B.S. , Communication Sciences and Disorders
The University of Texas, Austin, TX |

AWARDS AND GRANTS

- | | |
|----------------------------|--|
| June 2010 – September 2012 | NIH Trainee: Research Training Program in Speech and Hearing Sciences (NIH NIDCD T32-DC000033) |
| October 2009 | Travel Award, Aging and Speech Communication: Third International and interdisciplinary Research Conference, Indiana University, Bloomington, IN |

RESEARCH EXPERIENCE

Jan 2008-Present

Doctoral Student

The University of Washington, Seattle, WA

- Dissertation project on understanding the contribution of signal-to-noise ratio on hearing aid outcomes.
- Collaborator on a multi-facility project assessing use of fundamental frequency cues in older listeners with normal hearing.
- Lead researcher on a project characterizing the effects of age on subjective and objective speech perception in noise.

April 2005-Dec 2007

Clinical and Research Audiologist

Dynamic Hearing Pty. Ltd., Melbourne, Australia

- Developed and evaluated signal processing algorithms to use with Adaptive Dynamic Range Compression (ADRO®) processing in hearing aids.
- Assisted in the development and evaluation of a method for applying ADRO® processing to standard and amplified telephones.
- Assisted in designing fitting software for hearing aids and writing user guides.

TEACHING EXPERIENCE

The University of Washington
Seattle, Washington

Lead Instructor

- Advanced Amplification (Fall 2012)
- Hearing Aids II (Spring 2010)
- Hearing Aids I (Winter 2009)

Co-Instructor

- Hearing Aids II (Spring 2008) with Pam Souza, Ph.D.

Teaching Assistant

- Hearing Aids I (Winter 2008 and 2010)
- Hearing Aids II (Spring 2008 and 2009)
- Assessment I (Fall 2009)
- Balance Assessment (Summer 2009)

Guest Lectures

- Advanced Amplification (Fall 2008 and 2010)

CLINICAL EXPERIENCE

April 2005-Dec 2007

Clinical and Research Audiologist

Dynamic Hearing, Melbourne, Australia

- Diagnostic audiograms and dispensed all makes of hearing aids in a private practice setting.

May 2004-April 2005

Clinical Audiologist

HEARSERVICE – The Victorian Deaf Society, Melbourne, Australia

- Diagnostic evaluations and dispensed all makes of hearing aids for a non-profit organization.

October 2002-January 2004

Clinical Audiologist

Austin Ear, Nose, and Throat Associates, Austin, TX

- Diagnostic adult and pediatric audiograms, otoacoustic emissions, auditory brainstem response, electronystagmography, electrocochleography, canalith repositioning. Coordinated Specialized Telecommunications Assistant Program for our office.

April 2002-October 2002

Clinical Audiologist

Tejas Ear, Nose, and Throat, Round Rock, TX

- Diagnostic adult and pediatric audiograms, videonystagmography, canalith repositioning, hearing aid dispensing and marketing. Developed protocols for audiology department.

August 2001-April 2002

Audiologist, CF-A

The Otology Group, Austin, TX

- Differential diagnostic testing including electronystagmography, vestibular-ocular reflex testing, otoacoustic emissions, auditory brainstem response, platform posturography, canalith repositioning, and adult and pediatric audiograms.

PUBLICATIONS

Billings, C.J., Tremblay, K.L., **Miller, C.W.** (2011). Aided cortical auditory evoked potentials in response to changes in hearing aid gain. *Int J Audiol*, 50 (7), 459-67.

Arehart, K.H., Souza, P.S., Muralimanohar, R.M., **Miller, C.W.** (2011). Effects of age on concurrent vowel perception in acoustic and simulated electroacoustic hearing. *J Speech Lang Hear Res*, 54 (1), 190-210.

Souza, P.S., Arehart, K.H., **Miller, C.W.**, Muralimanohar, R.M (2010). Effects of age on F0-discrimination and intonation perception in acoustic and simulated electroacoustic hearing. *Ear Hear*, 32 (1), 75-83.

Wise, C. & Zakis, J. (2008). Effects of expansion algorithms on speech reception thresholds. *J Am Acad Audiol*, 19 (2), 147-57.

Zakis, J. & **Wise, C.** (2007). Single and multiple channel noise reduction algorithms. *J Acoust Soc Am*, 121, 433-441.

Wise, C., Dickson, B., Blamey, P. (2006). Adaptive Dynamic Range Optimisation for telephony applications. *Acoustics Australia*, 14, 117-121.

POSTERS

Miller, C., Wu, Y., Bentler R., Tremblay, K. (2012, August). *The potential for using the Hagerman-derived signal-to-noise ratio with individual fittings*. Poster to be presented at the International Hearing Aid Research Conference, Lake Tahoe, Nevada, United States.

Miller, C., Bentler, R., Temblay, K., Wu, Y. (2012, March). *The relationship between the Hagerman-derived signal-to-noise ratio and speech perception*. Poster presented at the American Auditory Society Conference in Scottsdale, Arizona, United States.

Tremblay, K., Billings, C., **Miller, C.** (2011, February). *Evoked Cortical Potentials Do Not Reliably Reflect Hearing Aid Gain*. Poster presented at the Association for Research in Otolaryngology, Baltimore, Maryland, United States.

Miller, C., Souza, P., Arehart, K., Anderson, M. (2009, October). *Characterizing the Abilities of Older Adults to Perceive Speech in Noise*. Poster presented at the Aging and Speech Communication Research Conference, Bloomington, Indiana, United States.

Arehart, K.H., Souza, P.S., **Miller, C.W.,** and Muralimanohar, R.M. (2008, August) *Age-related deficits in F0 processing: Use of periodicity and fine-structure cues*. Poster presented at the International Hearing Aid Research Conference, Lake Tahoe, Nevada, United States.

Blamey, P., Fiket, H., Pearce, D., **Miller, C.** (2008, April) *Adaptive directional microphone for open canal fittings*. Poster presented at the meeting of the American Academy of Audiology, Charlotte, North Carolina, United States.

PRESENTATIONS

Zakis, J. & **Wise, C.** (2006, August) *The acoustic and perceptual effects of noise-suppression algorithms*. Paper presented at the International Hearing Aid Research Conference, Lake Tahoe, Nevada, United States.

Wise, C., Fulton, B., & Hau, J. (2006, May) *Fitting Hearing Aids: A Different Way of Thinking*. Workshop conducted at the meeting of The Audiological Society of Australia, Perth, Australia.

Wise, C., Steele, C., Martin, L. (2006, May) *Assessing user preference for the volume control range*. Paper presented at the meeting of The Audiological Society of Australia, Perth, Australia.

MEMBERSHIPS/SERVICE

August 2002-Present

American Academy of Audiology
Full Member

August 2002-Present

American Speech Language Hearing Association
Full Member with CCC-A

August 2003-2008	International Society of Audiology
August 2003-2006	Full Member
August 2003-Present	Newsletter Editor: Humanitarian Audiology
	Committee Member: Humanitarian Audiology
	Audiological Society of Australia
April 2005	Full Member
April 2006	Full Member with CCP
2006-2007	State Executive Board Counselor

CURRICULUM VITAE

Robert M. Miller, Ph.D.
September 2012

PERSONAL DATA

Birth: June 17, 1946; Downey, California
Marital Status: Married. Nancy Lynn Miller
Home Address: 851 Walnut Street, Edmonds, WA 98020
Work Address: University of Washington
Department of Speech & Hearing Sciences
1417 NE 42nd Street
Seattle, WA 98105
Home Phone: 425 744-1513
Cell Phone: 206 251-2432
FAX: 206 543-1093
Work email: rmm2@u.washington.edu

EDUCATION

- ◆ B.A., Univ. of Redlands, Redlands, CA, Psychology (1968)
- ◆ M.A., Univ. of Redlands, Redlands, CA, Speech and Hearing (1969)
- ◆ Ph.D., Univ. of Washington, Seattle, WA, Speech Pathology (1976)

CERTIFICATION AND LICENSE

- ◆ Certificate of Clinical Competence, Speech Pathology, American Speech-Language-Hearing Association (ASHA), 1974-Present
- ◆ Board Certified, Neurologic Communication Disorders/Adults, Academy of Neurologic Communication Disorders and Sciences (ANCDS), 1994-Present
- ◆ Licensed Speech-Language Pathologist, State of Washington, 2003-Present

PROFESSIONAL POSITIONS

2001 - Current, Senior Lecturer, Department of Speech and Hearing Sciences, University of Washington
1998 - 2001 Director, Inpatient Rehabilitation Programs, VA Puget Sound Health Care System, Seattle WA
1986 - 2001 Chief, Audiology and Speech Pathology Service, VA PSHCS
1975 - 1985 Staff Speech Pathologist, VAMC Seattle, WA, 1975-1985
1972 - 1974 Chief, Speech Pathology Section, VAMC Long Beach, CA

PROFESSIONAL AFFILIATIONS AND ACADEMIC APPOINTMENTS

- ◆ Adjunct Lecturer, School of Medicine, Departments of Rehabilitation Medicine and Otolaryngology/Head & Neck Surgery, University of Washington (1986 - 2011)

- ◆ American Speech-Language-Hearing Association (ASHA) and Division 13: Dysphagia
- ◆ Academy of Neurologic Communication Disorders and Sciences (ANCDS)
- ◆ Washington State Speech and Hearing Association (WSHA)

HONORS

- ◆ Recipient, 1997 Clinical Achievement Award, Washington Speech & Hearing Association and 1998 American Speech-Language-Hearing Foundation, Outstanding Clinical Achievement for Washington State
- ◆ Fellow, American Speech-Language-Hearing Association (1999)
- ◆ Distinguished Career Award, Department of Veterans Affairs (2002)
- ◆ Association of Veterans Affairs Speech-Language Pathology *Hall of Fame* (2005)
- ◆ Visiting Erskine Fellow, University of Canterbury, Christchurch, New Zealand (2005)

TEACHING, RESEARCH, AND OTHER PROFESSIONAL INFORMATION

- ◆ Chair, Education Affiliation Subcommittee, VAMC Seattle, 1985-1999
- ◆ Member, Ethics Advisory Committee and Ethics Consult Team, VAMC Seattle, 1997-2001 (Chair, Membership subcommittee, 2000-2001)
- ◆ Guest Faculty, University of Montana, summer seminar, Dysphagia, 1988
- ◆ Clinical Associate Professor and Lecturer, University of Washington, teaching Aphasia (SPHSC 532), 1992; Voice and Resonance Disorders (SPHSC 535), 2001-2002; Dysphagia (SPHSC 534), 1990-1996, 2000-present; Neural basis of speech, language and hearing (SPHSC 501), 2000-present; Motor speech disorders (SPHSC 531), 2000-2002; Medical Speech-Language Pathology (SPSC 533), 2001-2006.
- ◆ Guest Faculty, Western Washington University, Dysphagia, 1995-present
- ◆ Guest Lecturer, University of Puget Sound, Dysphagia, 1992-2004
- ◆ Participating Investigator, VA Cooperative Study #268: New strategy to preserve the larynx in treatment of advanced laryngeal cancer, 1984-90
- ◆ Advisory Board, Seattle Laryngectomy Club, 1980-2000
- ◆ Editorial Advisory Board, Dysphagia Journal, 1985-present
- ◆ Editorial Consultant, Archives of Physical Medicine and Rehabilitation, 1995-present
- ◆ Consultant, Neuromuscular Clinic for Swallowing and Speech Disorders, University of Washington Medical Center, 1985-2005
- ◆ Affiliate, Virginia Merrill Bloedel Hearing Research Center, 1990-present

- ◆ Chair, WSHA Task Force on Reimbursement, 1995-1996
- ◆ Chair, ASHA (SID 13) Task Force on Clinical Indicators for Instrumental Procedures in Dysphagia, 1996-1998
- ◆ Program committee, "Dysphagia," 1998 ASHA convention
- ◆ Grant participant, NIH Planning Grant-Communicative Participation, Kathryn Yorkston, Ph.D., Principle Investigator, 2004-2007

WORKSHOPS AND INVITED LECTURES PRESENTED

- 1976 1. "Communication Disorders," American Lake VAMC; Tacoma
 2. "Swallowing Disorders," InterWest Regional Medical Education Center (RMEC) and University of Washington School of Medicine; Seattle
 3. "Brain Damage and Swallowing Disorders," Northern Idaho Consortium for Health Ed; Lewiston, ID
- 1977 "Swallowing Disorders," InterWest RMEC and University of Washington School of Medicine; San Francisco
- 1978 1. "Social Impairments of Persons with Chronic Disability," University of Washington School of Social Work; Seattle
 2. "Behavioral and Physical Disorders in the Elderly," InterWest RMEC and University of Washington School of Medicine; Seattle
- 1981 1. "Guidelines for Professionals Feeding Stroke Patients," American Heart Association of Washington; Seattle
 2. "Guidelines for Professionals Feeding Stroke Patients," American Heart Association of Washington; Spokane
 3. "Stroke Rehabilitation," InterWest RMEC; Salt Lake City.
 4. "Head Injury," Association of Rehabilitation Nurses; Everett, WA
- 1982 Series of 6 workshops, "Nutritional Considerations in the Elderly," InterWest RMEC; Seattle (2), Walla Walla (VAMC), Spokane (VAMC), San Francisco (VAMC), and Roseberg (VAMC)
- 1983 "Laryngectomy Speech Rehabilitation," Virginia Mason Hospital; Seattle
- 1984 "10th Annual Cancer Conference," University of Washington School of Nursing, Department of Physiological Nursing, and The American Cancer Society; Seattle
- 1985 1. "Brain Injury," sponsored by the University of Washington School of Medicine, Department of Rehabilitation Medicine; Seattle
 2. "Rehabilitation of Patients with Head Trauma," University of Washington Department of Speech & Hearing Sciences
- 1986 1. "Dysphagia Workshop," InterWest RMEC; Martinez VAMC, CA
 2. "District Conference on Swallowing Disorders," InterWest RMEC, Palo Alto GRECC, Bay Area Consortium on Geriatric Education; Martinez VAMC, CA
- 1987 "Respiratory Care in Spinal Cord Injury," Rehabilitation Education Program, Paralyzed Veterans of America; Seattle
- 1988 1. "Neuro Potpourri," University of Washington, Continuing Nursing Education; Seattle
 2. "Adult Neurogenic Dysphagia," Virginia Mason Medical Center, Seattle
 3. "Dysphagia: Interdisciplinary Management," InterWest RMEC; Reno, NV
 4. "Management of Communication and Swallowing Disorders in ALS," Department of Rehabilitation Medicine and ALS Health Support Services, Seattle
 5. Keynote Address, 37th Annual, International Association of Laryngectomees
- 1990 1. "Diagnosis and Management of Adult Dysphagia," Greater Victoria Hospital Society; Victoria, B.C., Canada
 2. "Current Issues in Nutrition Support," Northwest ASPEN; Bellevue, WA
- 1991 1. VA Teleconference, "Alternatives to Video Fluoroscopy for Dysphagia Evaluation," Durham NC

2. Fifth Annual Conference, Northwest ASPEN; Bellevue, WA
 3. "Communication and Swallowing Deficits in ALS," Florida Network for Neurogenic Communication Disorders; Marco Island, FL
- 1992
1. "Intervention Strategies for the Treatment of Aphasia in Elders," Puget Sound Forums on Aging; Seattle
 2. Gerontology Forums Northwest: "Nutrition, Metabolism and Exercise in Elders," Northwest Geriatric Education Center; Fife, WA
 3. "Advanced Dysphagia," Long Beach RMEC; San Francisco
 4. National Center for Neurogenic Communication Disorders, Telerounds #4 & 6: "Are university training programs adequately preparing students for speech-language pathology in a medical setting?" University of Arizona, Tucson, AZ
- 1993
- Postgraduate Dysphagia Training Conference, Department of Veterans Affairs and University of Iowa; Iowa City
- 1995
- Annual Neurological Symposium, University of Washington School of Nursing and American Association of Neuroscience Nurses
- 1996
1. "Communication and Aging," Puget Sound Forum on Aging; Seattle
 2. "Communication Disorders Associated with Aging," South Sound Forums on Mental Health; Tacoma
 3. "Swallowing and Dysphagia," University of Washington Physical Medicine and Rehabilitation Review Course
 4. Video lecture, DECOD (Dental Care for the Disabled) Distance Learning Unit, School of Dentistry, University of Washington, School of Dentistry
- 1997
1. "Dysphagia and Aging," Grand Rounds, Madigan Army Medical Center, Tacoma
 2. "Dysphagia management for geriatric patients," Rehab Seminars, Seattle
 3. "Clinical Indicators in Dysphagia," WSHA
 4. "Ethics Forum," WSHA
- 1998
1. "Dysphagia Evaluations" Annual Neurological Symposium, University of Washington School of Nursing and American Association of Neuroscience Nurses, Seattle
 2. "Dysphagia management in adults," Rehab Seminars, Phoenix
- 1999
1. "Swallowing dysfunction in stroke," University of Washington Physical Medicine and Rehabilitation Review Course
 2. Faculty, Evaluation and Management of Neurogenic Dysphagia in Adults and Children, 1st Annual Florida Dysphagia Institute, Orlando
- 2000
1. "Dysphagia in progressive disease," Canadian Association for Continuing Education in Nutritional Management, Vancouver B.C.
 2. Faculty, Dysphagia Treatment in Adults and Children, 2nd Annual Florida Dysphagia Institute, Orlando
- 2001
1. "Swallowing dysfunction in stroke," University of Washington Physical Medicine and Rehabilitation Review Course
 2. Faculty, Multidisciplinary Management of Dysphagia in Adults and Children, 3rd Annual Florida Dysphagia Institute, Orlando
- 2002
1. Poster "Functional gains in motor speech from the application of a pulmonary exercise: a case study" Conference on Motor Speech, March 14-17, Williamsburg
 2. Faculty, Evidence Based Dysphagia Treatment in Adults Children, 4th Annual Florida Dysphagia Institute, Orlando
 3. Keynote Address, 8th Annual Meeting of the Japanese Society of Dysphagia Rehabilitation, Tochigi-ken Sougou Bunka Center, Utsunomiya, Tochigi Prefecture, Japan
 4. Presentation, Dysphagia Management for Patients with ALS, International University of Health and Welfare, Otowara, Japan
 5. Presentation, Dysphagia Treatment: Evidence Based Practice, Washington Speech & Hearing Association Convention, Seattle
- 2003
1. Presentation, "To swallow or not to swallow, that is the question" Annual Neuroscience Nursing Symposium, Seattle
 2. Presentation, Swallowing impairment in myasthenia gravis, Northwest Myasthenia Gravis Support Group, Bellevue
 3. Faculty, Dysphagia Management: Present Challenges Future Solutions, 5th Annual Florida Dysphagia Institute, Orlando
 4. In-Service, Update on Dysphagia Management: Evidence Based Practice, Virginia Mason Medical Center, Seattle

5. Workshop, Clinical Examination for Dysphagia: SLP Role, Annual Meeting Canadian Dietetics Association, Calgary, Canada
- 2004
1. Schwartz DL, Buelna RA, Ford EC, Yockey KL, Miller RM, LeBlanc M, Schulte SJ, Yueh B, “Novel Dose-Limiting Structures for Head and Neck Radiotherapy Planning,” 6th International Head and Neck Cancer Conference, Wash, D.C.
 2. Miller, RM and Dowden P, “Integrating Speech Intervention and AAC for an Adult with Severe Hyperkinetic Dysarthria,” Medical Speech Pathology Grand Rounds, Seattle
 3. Faculty, “The Progressive Dysphagia Dinner” 6th Annual Florida Dysphagia Institute, Orlando
 4. Presentation, “Neurological aspects of the head and neck exam” Department of Otolaryngology, Head & Neck Surgery, Univ. of Washington, Seattle
 5. Workshop, “Dysphagia in Degenerative Disease,” Oregon Speech-Language-Hearing Assoc, Portland
- 2005
1. Faculty, “Laryngology—Office Based Procedures” UW School of Medicine
 2. Presentation, “Understanding patients with dysphagia” Access Community Therapists, Vancouver B.C.
 3. Presentation, “Dysphagia in neurodegenerative disease: a perspective for caregivers and professionals” Van der Veer Institute for Parkinson's and Brain Research, Christchurch, New Zealand
 4. Teleconference presentation, “Dysphagia in neurodegenerative disease” Van der Veer Institute for Parkinson's and Brain Research, Christchurch, New Zealand
- 2006
1. Faculty, Evidence-Based Practice in the Treatment of Dysphagia, Harborview Medical Center, Seattle
 2. Workshop, Interpreting the Neurological Evaluation: Clues for the speech-language pathologist, Truesdail Center for Communicative Disorders, Redlands, CA
 3. "Swallowing dysfunction in stroke," University of Washington Physical Medicine and Rehabilitation Review Course
 4. Presentation, “Trends in Dysphagia Treatment, Providence Medical Center, Everett, WA
 5. Presentation, “Rehabilitation of Dysphagia,” NW Pediatric Feeding Special Interest Group, Children’s Hospital and Medical Center, Seattle, WA
 6. Short course, “Progressive Degenerative Communication Disorders of Older Adults: Incidence, Pathology, Treatment,” ASHA, Miami Beach
 7. Seminar, “Developing a scale of communicative participation,” (Yorkston, Baylor, Deitz, Eadie, Miller), ASHA, Miami Beach
- 2007
1. Workshop, “Interventions for speech and swallowing in degenerative neurological diseases,” California Speech & Hearing Convention, Long Beach, CA
 2. Workshop, “The neurological exam: clues for the SLP,” California Speech & Hearing Convention, Long Beach, CA
 3. "Swallowing dysfunction in stroke," University of Washington PM&R Review Course
- 2008
1. "Swallowing dysfunction in stroke," University of Washington Physical Medicine and Rehabilitation Review Course
- 2009
1. “Down the Hatch! The Hows and Whys of Swallowing Disorders,” Annual Neuroscience Symposium, Seattle
 2. "Swallowing dysfunction in stroke," University of Washington Physical Medicine and Rehabilitation Review Course
 3. Invited Lecture: Justus F. Lehmann Day Symposium, “Benefits of Exercise in the treatment of motor speech impairments and dysphagia,” Seattle
 4. Invited Presentation: “Management of speech and swallowing in degenerative neurological disease,” Semiahmoo, WA
 5. “Swallowing impairment in myasthenia gravis,” MG Chapter 25th Anniversary Meeting, Bellevue, WA
- 2010
1. "Swallowing dysfunction in stroke," University of Washington Physical Medicine and Rehabilitation Review Course
- 2011
1. Invited Presentation: “Motor Speech Disorders: Tuning your ears to aid clinical assessment.” Neurology Grand Rounds, University of Washington School of Medicine
- 2012
1. “Dysphagia in Neuromuscular Disease: Unraveling the Knot,” Jun 2, 2012, Workshop sponsored by Northwest Speech and Language

NON-ABSTRACTED PAPERS AND SEMINARS PRESENTED

- 1978 Miller RM and Yockey K, "The Physiology of Swallowing and Management of Swallowing Disorders," mini-seminar, WSHA Convention, Spokane.
- 1983 Miller RM and Weinberg B, "Clinical Management of Dysphagia" seminar, ASHA Western Region Conference, Honolulu.
- 1994 Yorkston KM, Strand E and Miller RM, "Managing Speech and Swallowing Disorders: Ethical Issues in Degenerative Disease" mini-seminar, WSHA Convention, Bellevue, WA.
- 1994 Yorkston KM, Strand E and Miller RM, "Progression of Respiratory Symptoms in ALS: Implications for Speech and Swallowing Management" paper, Conference on Motor Speech, Sedona, AZ.
- 1995 Strand E and Miller RM, "Managing Speech and Swallowing in Degenerative Disease" seminar, WSHA Convention, Spokane, WA
- 1999 Miller RM, "Dysphagia Tutorial: An Overhead View" seminar, Idaho Speech, Language & Hearing Association, Boise, ID.
- 2004 Miller RM, "Progressive dysphagia in degenerative neurological diseases: the challenge of assessment and intervention" Short Course, Oregon Speech-Language & Hearing Assoc. Conference, Portland, OR

EDUCATIONAL and MEDIA PUBLICATIONS

---Guidelines for professionals; Feeding stroke patients. American Heart Association of Washington, Nutrition Stroke Sub-committee, 1980.

Miller RM; DeLisa JA; Larsen GL: Normal and abnormal swallowing. Videotape, Learning Resource Center, Salt Lake City, 1985.

Miller RM: Speech and swallowing in ALS. ALS Teaching Manual for Health Professionals, ALS Health Support Services, Kirkland, WA, 1985.

Veldee MS; Miller RM: Dietary considerations for dysphagia. Manual Of Clinical Dietetics, American Dietetic Association, 195-201, 1989.

Larsen GL; Miller RM; DeLisa JA: Dysphagia: Treatment and Management. Videotape and learning guide, Health Sciences Consortium,

Chapel Hill, NC, 1989.

Hansen J; Miller RM; Nelson BJ: A communication option for patients with special needs. Advance for Speech-Language Pathologists and Audiologists, 14, June 12, 1995.

Hansen J; Miller RM; Nelson BJ: A communication option for patients with special needs. Advance for Speech-Language Pathologists and Audiologists, 14, June 12, 1995.

Miller RM: A perspective on a dysphagia course. ASHA Swallowing and Swallowing Disorders, 4(2):5, 1995.

Lam P and Miller RM: Dysphagia Management Course. Dietitians of Canada http://www.dieteticsatwork.com/personal_home.asp 2004.

BIBLIOGRAPHY

JOURNAL PUBLICATIONS

DeLisa JA; Mikulic MA; Miller RM; Melnick RR: Amyotrophic lateral sclerosis: Comprehensive management. Am Family Physician 19(3):137-142, 1979.

Mikulic MA; DeLisa JA; Miller RM: Rehabilitate the patient with ALS? Association of Rehabilitative Nurses 4(6):4-7, 1979.

Dudgeon BJ; DeLisa JA; Miller RM: Head and neck cancer: A rehabilitation approach. Am J Occupational Therapy 34(4):243-251, 1980.

DeLisa JA; Miller RM; Melnick RR; Mikulic MA: Stroke rehabilitation: Cognitive deficits and prediction of outcome. Am Family Physician 26(5):207-214, 1982.

DeLisa JA; Mikulic MA; Melnick RR; Miller RM: Stroke rehabilitation: Recovery and complications. Am. Family Physician 26(6):143-151, 1982.

Evans RL; Miller RM: Psycho-social implications and treatment of stroke. Social Casework 65(4):242-247, 1984.

Dudgeon BJ; DeLisa JA; Miller RM: Optokinetic nystagmus and upper extremity dressing independence following stroke. Arch. Phys.

Med. Rehabil. 66(3):164-167, 1985.

DeLisa JA; Hammond MC; Mikulic MA; Miller RM: Multiple sclerosis: Part I. Physical disabilities and rehabilitation. Am Family Physician 32(4):157-163, 1985.

DeLisa JA; Miller RM; Mikulic MA; Hammond MC: Multiple sclerosis: Part II Common functional problems and rehabilitation. Am Family Physician 32(5):127-132, 1985.

Hillel AD and Miller RM: Bulbar amyotrophic lateral sclerosis: Patterns of progression and clinical management. Head and Neck Surgery, January-February:51-59, 1989.

Hillel AD; Miller RM; Yorkston KM; McDonald E; Norris FH; Konikow N: The ALS severity scale: An ordinal staging system. Neuro Epidemiology 8: 142-150. and In: Rose (ed.) ALS: Progress in Clinical Trials, v.1. NY: Demos Pub: 93-98, 1989.

Hillel AD; Yorkston KM; Miller RM: Use of phonation time to estimate vital capacity in ALS. Arch. Phys. Med. Rehabil. 70:618-620, 1989.

Miller RM; Groher ME: Speech pathology and dysphagia: a brief historical perspective. Dysphagia. 8(3):180-184, 1993.

Yorkston KM; Strand EA; Miller RM; Hillel AD; Smith K: Speech deterioration in amyotrophic lateral sclerosis: implications for the timing of intervention. J Medical Speech Pathology. 1(1):35-46, 1993.

Langmore SE; Miller RM: Behavioral Treatment for Adults with Oropharyngeal Dysphagia. Arch Phys Med Rehabil 75(10):1154-60, 1994.

Miller RM; Langmore SE: Treatment Efficacy for Adults with Oropharyngeal Dysphagia. Arch Phys Med Rehabil 75(11):1256-62, 1994.

Strand EA; Miller RM; Yorkston KM; Hillel AD: Management of oral-pharyngeal dysphagia symptoms in amyotrophic lateral sclerosis. Dysphagia 11(2):129-139, 1996.

Dray TG; Hillel AD; Miller RM: Dysphagia Due to Neurological Deficits. In Plant RL and Schechter GL (eds.) Dysphagia in Children, Adults, and Geriatrics Otolaryngology Clinics of North America 31(3):507-524, June, 1998.

Hillel A; Dray T; Miller RM; Yorkston KM; Konikow N; Strand E; Browne J: Presentation of ALS to the otolaryngologist/head and neck surgeon: getting to the neurologist Neurology 53(Suppl 5):S22-S25,

PART C / Appendix C

November, 1999.

Miller RM; Chang MW: Advances in the management of dysphagia due to stroke. In Odderson and Halar (eds) PM&R Clinics of North America 10(4):925-941, November, 1999.

Yorkston KM; Spencer KA; Duffy JR; Beukelman DR; Golper LA; Miller RM; Strand EA; Sullivan M: Evidence-based medicine and practice guidelines: application to the field of speech-language pathology. Journal of Medical Speech-Language Pathology, 9(4):243-256, 2001a.

Yorkston KM; Spencer KA; Duffy JR; Beukelman DR; Golper LA; Miller RM; Strand EA; Sullivan M: Evidence-based practice guidelines for dysarthria: management of velopharyngeal function. Journal of Medical Speech-Language Pathology, 9(4): 257-273, 2001b.

McKeever S; Miller RM: Glossopharyngeal breathing to improve functional vital capacity and speech production in a patient with flaccid dysarthria. Journal of Medical Speech-Language Pathology, 10(4):307-311, 2002.

Miller RM: Neuromuscular impairments of swallowing: contributions from the clinical examination. The Japanese Journal of Dysphagia Rehabilitation, 6(2):3-9, 2002.

Eadie TL, Yorkston KM, Klasner ER, Dudgeon BJ, Deitz JT, Baylor CR, Miller RM, & Amtmann D.: Measuring communicative participation: A review of self-report instruments in speech-language pathology. American Journal of Speech-Language Pathology, 15(4), 307-320, 2006.

Miller RM & Britton D. (2007). Experience with amyotrophic lateral sclerosis: incidence, pathology, and treatment considerations. Perspectives on Gerontology, 12, 17-22.

Yorkston KM, Baylor C R, Deitz J, Dudgeon BJ, Eadie T, Miller RM, & Amtman D. (2007). Developing a scale of communicative participation: A cognitive interviewing study. Disability and Rehabilitation, 30(6), 425-433.

Yorkston KM, Baylor CR, Klasner ER, Deitz J, Dudgeon BJ, Eadie T, Miller RM & Amtmann D. (2007). Satisfaction with communicative participation as defined by adults with multiple sclerosis: A qualitative study. Journal of Communication Disorders, 40, 433-451.

Baylor CR, Yorkston KM, Eadie T, Miller RM, & Amtmann D. (2008). The levels of speech usage: a self-report scale for describing how people use speech. Journal of Medical Speech-Language Pathology, 16(4), 191-198.

Baylor CR, Yorkston KM, Eadie T, Miller RM, & Amtmann D. Developing the communicative participation item bank: Rasch analysis results from a spasmodic dysphonia sample. Journal of Speech, Language and Hearing Research, 52, 1302-1320, 2009.

Burns M; Miller RM, The effectiveness of Neurolmuscular Electrical Stimulation in the Treatment of Pharyngeal Dysphagia: A Systematic Review. Journal Medical Speech-Language Pathology 19(1), 13-24 March 2011.

Schepp SK, Tirschwell DL, Miller RM & Longstreth WT: Swallowing screens after acute stroke: a systematic review. Stroke. 43(3): 869-871, March 2012.

BOOKS

Miller RM; Groher ME: Medical Speech Pathology, Aspen Publishing Co., Rockville, Maryland, Nov, 1989.

Yorkston KM; Miller RM; Strand EA; Hillel AD: Management of Speech and Swallowing in Degenerative Diseases, Communication Skill Builders, Tucson, Arizona, 1995.

Yorkston KM; Miller RM; Strand EA: Management of Speech and Swallowing in Degenerative Diseases 2nd edition, ProEd, Austin, Texas, 2004.

Miller, RM; Britton, D: Dysphagia in Neuromuscular Disease, Plural Publishing, San Diego, 2011.

Yorkston KM; Miller RM; Strand EA: Management of Speech and Swallowing in Degenerative Diseases 3rd edition, ProEd, Austin, Texas, 2012.

CHAPTERS IN BOOKS

DeLisa JA; Miller RM; Melnick RR; Mikulic MA: Rehabilitation of the Cancer patient. In DeVita, VT; Helman S; Rosenberg SA (eds.) Cancer: Principles and Practice of Oncology, JB Lippincott Company Publishers, Philadelphia, 1982.

Miller RM; Groher ME: Management of neuromuscular and mechanical swallowing disorders. In Eggert and Milianti (eds.) Dysarthria, Dysphagia, Dysphonia, Biolinguistics Publishers, Chicago, 1982.

Miller RM: Evaluation of swallowing disorders. In Groher (ed.)

Dysphagia: Diagnosis and Management, Butterworths Publishers, Woburn, MA, 1984.

Miller RM; Groher ME: General treatment of neurologic swallowing disorders. In Groher (ed.) Dysphagia: Diagnosis and Management, Butterworths Publishers, Woburn, MA, 1984.

DeLisa JA; Miller RM; Melnick RR; Mikulic MA; Gerber L: Rehabilitation of the cancer patient. In DeVita, Helman, Rosenberg (eds.) Cancer: Principles and Practice of Oncology, 2nd ed., JB Lippincott Co. Publishers, Philadelphia, 1985.

Hillel AD; Miller RM: Management of bulbar symptoms in Amyotrophic Lateral Sclerosis. In Cosi, et.al. (eds.) Amyotrophic Lateral Sclerosis: Therapeutic, Psychological and Research Aspects, Plenum Press, N.Y., 1987.

Miller RM; Groher ME; Yorkston K; Rees TS: Speech, Language, Swallowing and Auditory Rehabilitation. In DeLisa, et al. (eds.) Rehabilitation Medicine: Principles and Practice, JB Lippincott Co. Publishers, Philadelphia, 1987.

DeLisa JA; Miller RM; Melnick RR; Gerber L; Hillel AD: Rehabilitation of the Cancer Patient. In DeVita, Helman, Rosenberg (eds.) Cancer: Principles and Practice of Oncology, 3rd ed., JB Lippincott Company Publishers, Philadelphia, 1987.

Perlman AL; Langmore SE; Milianti FJ; Miller RM; Mills RH; Zenner PM: Comprehensive clinical examination of oropharyngeal swallowing function. Seminars in Speech and Language, 12, (Sonics, Ed.), Thieme Medical Publishers, N.Y., 1991.

Miller RM; Groher ME; Yorkston K; Rees TS: Speech, Language, Swallowing and Auditory Rehabilitation. In DeLisa, et al. (eds.) Rehabilitation Medicine: Principles and Practice, 2nd ed., JB Lippincott Co. Publishers, Philadelphia, 1991.

Miller RM: Clinical examination for dysphagia. In Groher (ed.) Dysphagia: Diagnosis and Management, 2nd Edition, Butterworths Publishers, Woburn, MA, 1992.

Miller RM; Groher ME: General treatment of neurologic swallowing disorders. In Groher (ed.) Dysphagia: Diagnosis and Management, 2nd Edition, Butterworths Publishers, Woburn, MA, 1992.

Yorkston KM; Strand EA; Miller RM: Progression of Respiratory Symptoms in ALS. In Robin, Yorkston and Beukelman (eds.) Disorders of Motor Speech, Paul H. Brookes, Baltimore, 1994.

Schulze-Delrieu KS; Miller RM: Clinical assessment of Dysphagia. In Perlman and Schulze-Delrieu (eds.) Deglutition and Its Disorders, Singular Publish. Group, San Diego, 1997.

Miller RM: Clinical examination for dysphagia. In Groher, (ed.) Dysphagia: Diagnosis and Management, 3rd Edition, Butterworths, Woburn, MA, 1997.

Miller RM; Groher ME: General treatment of neurologic swallowing disorders. In Groher (ed.) Dysphagia: Diagnosis and Management, 3rd Edition, Butterworths, Woburn, MA, 1997.

Strand EA; Yorkston KM; Miller RM: Medical Ethics and the Speech Pathologist. In Johnson and Jacobson (eds.) Medical Speech-Language Pathology: A Practitioner's Guide, Thieme Medical, NY, 1998.

Miller RM; Groher ME; Yorkston K; Rees TS; Palmer JB: Speech, Language, Swallowing and Auditory Rehabilitation. In DeLisa, et al. (eds.) Rehabilitation Medicine: Principles and Practice, 3rd edition, Lippincott-Raven Publishers, Phil, 1998.

Miller RM; Groher ME; Yorkston K; Rees TS; Palmer JB: Speech, Language, Swallowing and Auditory Rehabilitation. In DeLisa, et al. (eds.) Rehabilitation Medicine: Principles and Practice, 4th edition, Lippincott Williams & Wilkins Publishers, Phil, 2005

Strand EA; Yorkston KM; Miller RM: Medical Ethics and the Speech Pathologist. In Johnson and Jacobson (eds.) Medical Speech-Language Pathology: A Practitioner's Guide, 2nd edition, Thieme Medical, NY, (2007)

Miller RM; Britton D: Progressive Bulbar Palsy. In Rosenbek and Jones, Dysphagia in Rare Conditions, Plural Publishing, San Diego (2010)

ABSTRACTS OF INVITED PAPERS

Miller RM; Swatman FM. Verbal and non-verbal concept identification in language impaired subjects with left localized cerebral lesions. Proceedings: Conference on Human Brain Function, Brain Information Service, UCLA:137, 1976.

Miller RM; Groher ME: Management of neuromuscular and mechanical swallowing disorders. J. Speech and Hearing Dis. 19(9):664, 1977.

Stanton KM; Flowers CR; Kuhl PD; Miller RM; Smith CH: Language-

oriented training program to teach compensation of left side neglect. Arch PM&R 60(11):540, 1979.

DeLisa JA; Mikulic MA; Miller RM; Melnick RR: ALS: Comprehensive management. Arch PM&R 60(11):526, 1979.

Dudgeon BJ; DeLisa JA; Miller RM: Optokinetic nystagmus and upper extremity dressing independence following stroke. Arch PM&R 64(10):506, 1983.

Yorkston KM; Miller RM; Hillel AD: The natural course of speech and swallowing disorders in ALS. Arch PM&R 69:766, 1988.

Yorkston KM; Miller RM; Hillel AD: Management of speech and Swallowing problems in ALS. J of ASHA 30(10):83, 1988.

Yorkston KM; Miller RM; Hillel AD; Beukelman DR. Diadochokinetic rates in dysarthric speakers with amyotrophic lateral sclerosis. J of ASHA 32(10):181, 1990.

Yorkston KM; Strand EA; Miller RM: Examining the Natural Course of ALS. J of ASHA 34(10):129, 1992.

Yorkston KM; Strand EA; Miller RM: Managing Speech and Swallowing Disorders: Ethical Issues in Degenerative Disease. J of ASHA 35(10):233, 1993.

Yorkston KM; Strand EA; Miller RM: Staging Intervention for Dysarthria and Dysphagia in Degenerative Disease. J. of ASHA 36(10):49, 1994.

Chang MW; Rosendall B; Finlayson B; Yorkston KM; Miller RM: Mathematical Modeling of Pharyngeal Bolus Transport. Dysphagia 10(2):143, 1995.

Hays R; Rosenbek J; Miller RM; Strand EA: Issues in Biomedical Ethics. ASHA Convention Program: 147; ASHA Leader 1(16), 1996.

Groher ME; Miller RM; Lazarus C; Lefton-Greif M; Crary M: The Dysphagic Patient: Lost to Follow-up. ASHA Convention Program: 155; ASHA Leader 1(16), 1996.

EDITING, EDITORIALS AND TECHNICAL REPORTS

Groher ME; Miller RM (Guest Editors): Dysphagia: Special Issue: Managing dysphagia in chronic and progressive disease. 7(2):57, 1992.

Yorkston, K. M., Spencer, K. A., Beukelman, D. R., Duffy, J., Golper, L. A., Miller, R. M., Strand, E. A., & Sullivan, M. (2001, April). *Practice guidelines for dysarthria: Evidence for the effectiveness of management of velopharyngeal function* (Technical Report 1). Academy of Neurologic Communication Disorders and Sciences. Retrieved from the World Wide Web: <http://www.ancds.duq.edu/guidelines.html>

Duffy, J. R., Yorkston, K. M., Beukelman, D. R., Golper, L. A., Miller, R. M., Spencer, K. A., Strand, E. A., & Sullivan, M. (2001). *Medical interventions for spasmodic dysphonia and some related conditions: A systematic review* (Technical Report 2). Minneapolis, MN: Academy of Neurologic Communication Disorders and Sciences.

Yorkston KM; Spencer KA; Duffy JR; Beukelman DR; Golper LA; Miller RM; Strand EA; Sullivan M: (2002) Practice Guidelines for Dysarthria: Evidence for the Behavioral Management of the Respiratory/Phonatory System (Technical Report 3). Minneapolis, MN: Academy of Neurologic Communication Disorders and Sciences.

Miller RM: Restricting knowledge is not the answer. The ASHA Leader 8(20):19, November 4, 2003.

Miller RM and Britton D: Progressive Degenerative Communication Disorders of Older Adults: Incidence, Pathology, Treatment, Perspectives on Gerontology, ASHA, Division 15, 12(1):17, October 2007.

Curriculum Vitae

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Education

- University of Washington, B.S. Speech and Hearing Sciences, 1982
- University of Washington, M.S. Speech/Language Pathology, 1984

Academic and Professional Experience

- Lecturer, Dept. of Speech and Hearing Sciences, University of Washington. 2006-present.
- Consulting Speech-Language Pathologist, Kenneth D. Faw, M.D., Eastside ENT, Kirkland, WA. 2001-present.
- Clinical Advisor, Evergreen Speech & Hearing Clinic, Inc., Redmond, WA. 2004-2005, 1997-2001.
- Clinical Speech Services Director and Speech-Language Pathologist, Evergreen Speech & Hearing Clinic, Inc., Redmond, WA. 2001-2004.
- Clinical Instructor, Dept. of Speech and Hearing Sciences, University of Washington, 1995-1996, 2000-2001, 2005.
- Speech/Language Pathologist, On Staff, Evergreen Hospital, Kirkland, WA. 1987-1993.
- Speech/Language Pathologist, Private Practice, Evergreen Speech & Hearing Clinic, Inc., Kirkland, WA. 1985-1997.
- Speech/Language Pathologist, Multicare Medical Center, Tacoma, WA. 1984-1986.

Courses Taught

- Voice Disorders in Medical Settings (co-teach, graduate)
- Clinical Practica in Voice and Fluency (graduate)
- Independent Study in Conducting Laryngeal Videostroboscopy (graduate)

Other Clinical Service

- Strobopalooza: Week-long clinic involving SPHSC graduate students in conducting baseline voice evaluation and laryngeal videostroboscopy on 60-80 incoming theater and singing students from Cornish College of the Arts and UW School of Music. 2009 to present

Department Service

- Clinical/Didactic "Gap" Committee – 2010 to present
- ASHA Liaison Committee – 2006 to 2010
- Grand Rounds Committee – 2005 to present
- Med SLP Committee – 2005 to 2007

Certification/Licensure

- Certificate of Clinical Competence - Speech/Language Pathology (CCC-SLP), #1008607 American Speech-Language-Hearing Association, 1985

- Licensed Speech-Language Pathologist, #LL00001546, Washington State Department of Health, 1997

Professional Associations

- American Speech-Language-Hearing Association
- Washington Speech-Language-Hearing Association
- The Voice Foundation (National and Northwest Chapter)

Grants

- Nevdahl, Martin (PI) *The Lidcombe Program in the Community*. Australian Stuttering Research Centre (\$53,310; 09/01/08 – 08/31/09)

Presentations at Professional Meetings

- “Resonanza 2012! Resonant Voice Therapy Techniques” panel presentation – NW Chapter of The Voice Foundation, Seattle, WA 2012
- “Stuttering Update: Treating Stuttering in School-Age Children” – Bellevue School District, Bellevue, WA, 2012
- “Vocal Characteristics in Student Performers and Non-Performers” poster – ASHA, Philadelphia, 2010
- “Trouble-shooting with the Lidcombe Program” panel presentation – ASHA, New Orleans, 2009
- “The Effects of Training and Anchors on Judgments of Dysphonia” poster – ASHA, New Orleans, 2009
- “Evidence-based Practice and the Treatment of Stuttering in Children” – WSHA Convention, Blaine, WA, 2009
- “Fundamentals of Voice Production” – Presented with Dr. Tanya Eadie; NW Chapter of The Voice Foundation, Seattle, WA, 2008
- “Treatment of Stuttering in the Real World: Lidcombe Population Research” – Presented with Dr. Mark Onslow at the Oxford Dysfluency Conference. Oxford, UK, 2008
- “Stuttering Update: What’s New?” – WSHA Convention, Redmond, WA, 2007
- “Treatment of Childhood Stuttering: The Lidcombe Program” – WSHA Convention, Spokane, WA, 2004

Other Invited Presentations and Guest Lectures

- Human Communication Disorders (UW SPHSC undergraduate) – Fluency Disorders
- Speech and Language Disorders (UW SPHSC undergraduate) – Fluency and Voice Disorders
- Diagnosis of Speech and Language Disorders (UW SPHSC undergraduate) – Fluency Disorders
- Treatment of Speech and Language Disorders (UW SPHSC undergraduate) – Fluency Disorders
- Vocal Pedagogy (UW Music Dept undergraduate and graduate) Vocal Production & Vocal Hygiene
- Theater (Cornish College of the Arts undergraduate) Vocal Production and Vocal Hygiene

Professional Activities

- President of Washington Speech-Language-Hearing Association, 2012
- Member of Lidcombe Program Trainers Consortium, 2010 to present
- Member of Fluency Subcommittee for the ASHA Convention, 2011, 2007
- Founding member of The Northwest Chapter of The Voice Foundation

Other Professional Services

- Ad Hoc Book Reviewer, Lippencott, Williams, and Wilkins
- Ad Hoc Reviewer, International Journal of Speech-Language Pathology

Lesley Barrett Olswang

PERSONAL INFORMATION

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PRESENT POSITION

Professor Emeritus, Department of Speech and Hearing Sciences
 University of Washington.
 Research Affiliate of the Center on Human Development and Disability
 University of Washington

EDUCATIONAL BACKGROUND

<u>Institution</u>	<u>Degree</u>	<u>Dates</u>
Northwestern University	B.S.	1969
University of Illinois	M.A.	1971
University of Washington	Ph.D.	1978

PROFESSIONAL BACKGROUND

<u>Institution</u>	<u>Position</u>	<u>Dates</u>
Americana Nursing Center, St. Mary's Hospital, Decatur, Illinois	Speech and Language Pathologist	1/71 - 8/71
Kirby Hospital, Monticello, Illinois	Consulting Speech and Language Pathologist	1/71 - 8/71
Title III, Program in Early Childhood Development, Evanston, Illinois	Speech and Language Pathologist	1971 - 1972
Title III, Program in Early Childhood Development, Evanston, Illinois	Program Coordinator and Curriculum Developer	1972 - 1974

University of Washington Department of Speech and Hearing Sciences	Acting Assistant Professor	9/77 - 7/78
University of Washington Department of Speech and Hearing Sciences	Assistant Professor	9/78 - 8/85
University of Washington Department of Speech and Hearing Sciences	Associate Professor	9/85 - 8/91
University of Washington Department of Speech and Hearing Sciences	Professor	9/91-present
University of Washington Department of Speech and Hearing Sciences	Associate Chair	3/95 – 9/2005
University of Washington Center on Human Development and Disability	Research Affiliate	6/97-present
University of Washington Department of Speech and Hearing Sciences	Professor Emeritus	6/11-present

CERTIFICATIONS

Illinois Teaching Certificate, Speech Correction, K-12, awarded in 1969.

Certificate of Clinical Competence, Speech Pathology, awarded in January 1972 by the American Speech-Language-Hearing Association.

HONORS AND AWARDS

1983 Distinguished Teaching Award, University of Washington.

Language, Speech and Hearing Services in Schools, 1986 Editor's Award for the article, Schwabe, A., Olswang, L. & Kriegsmann, E. "Requests for Information: Linguistic, Cognitive, Pragmatic and Environmental Variables."

Language, Speech and Hearing Services in Schools, 1991 Editor's Award for the article, Olswang, L. & Bain, B. "Treatment Efficacy: When to Recommend Intervention."

American Journal of Speech Language Pathology, 1995 Editor's Award for the article, Bain, B. & Olswang, L. "Examining Readiness for Learning Two-Word Utterances by Children with Specific Expressive Language Impairment: Dynamic Assessment Validation."

Fulbright Scholar, University of Reading, Department of Linguistic Science, Reading, U.K. and University of Edinburgh, Department of Psychology, Edinburgh, Scotland, September, 1994 - February, 1995.

Fellow, American Speech-Language-Hearing Association, Awarded November 21, 1996.

Marsha Landolt Distinguished Graduate Mentor Award, Honorable Mention, University of Washington, 2004.

Washington State Speech-Language-Hearing Association, Clinical Achievement Award, 2004.

Marsha Landolt Distinguished Graduate Mentor Award, University of Washington, 2005.

University of Illinois 2008, Distinguished Alumnus and John J. O'Neill Lecture Speaker, University of Illinois, 2009.

American Speech, Language, Hearing Foundation, Board of Trustees, 9/2012-present

GRANTS RECEIVED AND UNDER REVIEW

University of Washington, Scholarly Development Grant, Summer, 1980.

Graduate School Research Fund, Public Health Service Biomedical Research Support Grant Funds, University of Washington, July, 1981.

U.S. Office of Education, Bureau of Education for the Handicapped, Co-Investigator with R. Carpenter Principal Investigator, Development of Procedures for Assessing Prelinguistic and Early Linguistic Behaviors in Low Functioning Children, October 1, 1980 -September, 1983.

National Institutes of Health, First Award - Five Year Grant, L. Olswang Principal Investigator, Predicting the Benefits of Language Treatment, February 1, 1989 - January 31, 1993.

Department of Education, Training Personnel for the Education of the Handicapped, L. Olswang Principal Investigator, Judy Stone Co-Investigator, "Research methodology applied to clinical decisions," September 16, 1989 - September 15, 1992.

University of Washington, Royalty Research Fund, "Evaluating the Effectiveness of Early Intervention," September 1, 1997 - August 31, 1998.

Association for Retarded Citizens, Seattle, Washington, "Improving Social Communication Deficits in Children with Developmental Disabilities," September 1, 1997 - August 31, 1998.

University of Washington, Alcohol and Drug Abuse Institute, "Investigation of Social Communication Skills in School-Age Children with Alcohol Related Disabilities," June 15, 1999-June 15, 2000.

American Speech, Language, Hearing Association, Project on Multicultural Activities 2000- 2001, "Multicultural Presence and Understanding: A Model for Mentoring Undergraduate Students in Speech-Language Pathology," September 15, 2000-September 14, 2001.

"Communication in MR," Subcontract with University of Kansas, NIH Grant, PI-Richard Saunders, February 1, 2001-January 31, 2002.

"Tele-collaboration in Speech and Hearing Sciences," University of Washington Tools for Transformation, PI-Lesley B. Olswang, September 15, 1999-September 14, 2001.

“Early Signals of Communication and their Relationship to Later Language and Social Skills,” Center for Mind, Brain, and Learning, PI-Lesley B. Olswang, September, 2001-March, 2003.

“Tapping into Social Communication Problems” PI Lesley B. Olswang, Ph.D.
Agency: University of Washington Royalty Research Award, December, 2002- August, 2005

“Intervening with Children/Adolescents with FAS/ARND,” Centers for Disease Control, Co-Investigator, (PI-Susan Astley, University of Washington, Epidemiology), September, 2001-September, 2005.

“Acquisition of Triadic Eye Gaze by Young Children with Motor Impairments”, PI-Lesley B. Olswang. National Institutes of Health, (Part of Program Project: Communication of People with Mental Retardation, Dick Saunders, PI, University of Kansas), April, 2007-March 2012.

“Triadic Eye Gaze Caregiver Research”, PI-Lesley B. Olswang, American Recovery and Reinvestment Act Award (ARRA), September 1, 2010-August 31, 2012.

ACADEMIC COURSES TAUGHT

University of Washington:

Undergraduate Courses:

Normal Speech and Language Development
Clinical Processes I: Assessment of Speech and Language Disorders
Clinical Processes II: Treatment of Speech and Language Disorders
Articulation and Language Treatment Techniques
Social-Cultural Aspects of Communication

Graduate Courses:

Clinical Research in Communication Disorders
Evaluation of Speech and Language Disorders
Clinical Methodology for Documenting Change
Seminars in Speech and Language Pathology -
Language Intervention Techniques
Productivity in Child Language
Role of Discourse in Child Language Acquisition
Generalization in the Treatment of Speech and Language Disorders
Assessing Prelinguistic and Early Linguistic Behaviors in Low Functioning Children
Language Acquisition: State of the Art
Language Intervention: A Decade of Research in Review
Alternative Service Delivery Models for Language Impaired Children
Time Series Research Methodology
Treatment Efficacy in Practice
Communication Development in Infancy
Clinical Methodology for Documenting Change
Communication Sciences and Disorders: Theory to Practice

Visiting Faculty Positions

University of Montana, Communication Sciences and Disorders, Critical Analysis of Language Intervention Procedures (with Barbara Bain), Summer 1981.

University of Montana, Communication Sciences and Disorders, Measurement of Clinical Progress: Objective Data Gathering (with Barbara Bain), Summer 1982.

University of Montana, Communication Sciences and Disorders, Assessment Procedures for Predicting Readiness for Learning (with Barbara Bain), Summer 1983.

University of Montana, Communication Sciences and Disorders, Language Development (with Barbara Bain), Summer 1985.

University of Montana, Communication Sciences and Disorders, Alternative Service Delivery Models (with Barbara Bain), Summer 1987.

University of Montana, Influence of Context on Assessing and Treating Preschool Language Impaired Children (with Barbara Bain), Summer 1989.

COMMITTEES AND SERVICE

University

University of Washington Disciplinary Committee, 1981-1982.

National Merit Scholar Selection Committee, 1984.

Graduate School of Public Affairs, Teaching Excellence Award Selection Committee, 1984.

College of Arts and Sciences, W-course (writing course) Committee, September 1986-1991.

Ad Hoc Committee on the Status of Junior Faculty Women in the School of Medicine, Autumn 1991-Summer 1992.

Faculty Senate, Autumn, 1992-Spring 1994.

Search Committee for Chair of Speech and Hearing Sciences, Autumn 1993-Winter 1994.

Graduate Program Coordinator 1994-present

Faculty Fellows, Senior Fellow, September, 1998, 1999

Teaching Academy Advisory Board, September 1998-September 1999

Search Committee for College of Education Special Education Position in Early Childhood, Winter-Spring, 1999.

Royalty Research Review Committee, 2004

Professional-Regional

Member, Washington Speech and Hearing Association (WSHA), 1975-present.

Cochair Program Committee, WSHA-OSHA (Oregon Speech and Hearing Association), Convention, October, 1983.

Member, WSHA Joint Technical Adequacy Committee, 1984-1986.

Member, WSHA Education and Research Committee, 1982-1988.

Professional-National

Member, American Speech-Language-Hearing Association (ASHA), 1972- present.

Member, 1979 ASHA Program Committee, Annual Convention, Language Disorders and Learning Disabilities.

Member, 1986 ASHA Program Committee, Annual Convention, Language Disorders and Learning Disabilities - Intervention.

Editorial Consultant, Journal of Speech and Hearing Disorders, January 1, 1986-1988.

Editorial Consultant, Language, Speech, Hearing Services in Schools, January 1, 1987-present

Associate Editor, Language, Speech, Hearing Services in Schools, January 1, 1988-1990.

Coordinator, ASHA Experimental Analysis Interest Group - November, 1986-1988.

Chair, Conference on Treatment Efficacy, ASHF-sponsored, San Antonio, March 17-19, 1989.

Editorial Consultant, American Journal of Speech-Language Pathology, 1991-present.

Steering Committee, Conference on Research Mentorship and Training in Communication Sciences and Disorders, Sponsored by National Institute on Deafness and Other Communication Disorders and the American Speech-Language-Hearing Foundation, May 6-7, 1993.

NIH Study Section Member - Human Development and Aging - 3, October 1990-July 1994.

NIH - Reviewers Reserve (NRR), July 1994 - June 1998.

American Speech-Language-Hearing Foundation, Student Research Grant Selection Committee, 1996.

Language Subcommittee of the Executive Policy Board of ASHA's Clinical Trials Cooperative Group, NIH, NIDCD, 1997-1998.

Advisory Board, NIDCD Contract-Developing and Validating a Language Test for Bilingual Hispanic Children, Aquiles Iglesias, Principal Investigator, 1998-2003.

Program Committee Member, Child Speech and Language Intervention, Asha Annual Convention, San Antonio, Texas, 1998.

American Speech, Language, Hearing Foundation, Scholarship Reviewer, 2006, 2008

PRESENTATIONS

Conference Papers

Olswang, L. (1973, March). Meeting the Demands of Illinois Law #323 - Programs in Early Childhood Development. Annual Convention of the Illinois Speech and Hearing Association.

Olswang, L. (1976, October). Parent-Child Interaction - Practical Application for the Speech Pathologist. Annual Convention of the Washington Speech and Hearing Association.

- Olswang, L. (1977, May). Preschool Language Screening. Symposium on the Development of a Preschool/Infancy Screening and Assessment Program, Washington Educational Research Association, Fifth Annual Conference.
- Olswang, L. (1979, November). Ontogenesis of Agent: From Cognitive Notion to Semantic Expression." Annual Convention of the American Speech-Language-Hearing Association, Atlanta, Georgia.
- Olswang, L. (1980, February). Piaget's Concept of Causality as a prerequisite to the Emerging Semantic Concept of Agent. Annual International Interdisciplinary Conference on Piagetian Theory and the Helping Professions, University of Southern California.
- Olswang, L., & Kriegsmann, E. (1981, November). A System for Changing Functional Requests in Pragmatically Impaired Children. Annual Convention of the American Speech-Language-Hearing Association, Los Angeles, California.
- Scherer, N. & Olswang, L. (1981, November). Role of Mother's Expansions in Facilitating Language Learning." (with Nancy Scherer) Annual Convention of the American Speech-Language-Hearing Association, Los Angeles, California.
- Olswang, L., Barin, B., Dunn, C., & Cooper, J. (1981, November). Single-Word Learning Through Picture Identification Versus Object Manipulation. Annual Convention of the American Speech-Language-Hearing Association, Los Angeles, California.
- Olswang, L., & Coggins, T., (1981, November). Spontaneous Imitation: A Language Learning Strategy. Special Session on Language, Annual Convention of the American Speech-Language-Hearing Association, Los Angeles, California.
- Olswang, L., & Bain, B. (1982, November). Criteria for Sound Mastery: When Can Treatment be Terminated. Annual Convention of the American Speech-Language-Hearing Association, Toronto.
- Coggins, T., & Olswang, L. (1982, November). The Effect of Adult Linguistic Behaviors on Early Language Learning. Annual Convention of the American Speech-Language-Hearing Association, Toronto.
- Schwabe, A., & Olswang, L. (1983, November). Requests for Information: Linguistic, Cognitive, Pragmatic Constituents. Annual Convention of the American Speech-Language-Hearing Association, Cincinnati, Ohio.
- Carpenter, R., Coggins, T., Stoel-Gammon, C., & Olswang, L. (1983, November). Assessing Prelinguistic and Early Linguistic Behaviors in Developmentally Young Children. Annual Convention of the American Speech-Language-Hearing Association, Cincinnati, Ohio.
- Moellman-Landa, R., & Olswang, L. (1984, June). Effects of Adult Behaviors on Language-Impaired Children's Verbal Output. Symposium on Research in Child Language Disorders, Madison, WI.
- Moellman-Landa, R., & Olswang, L. (1984, November). Effectiveness of Language Elicitation Techniques with Two-Year-Olds. Annual Convention of the American Speech, Language, Hearing Association, San Francisco, CA.
- Scherer, N. & Olswang, L. (1984, November). Language Intervention and Pragmatic Disorders: Using Expansions and Spontaneous Imitations. Annual Convention of the American Speech-Language-Hearing Association, San Francisco, CA.

- Coggins, T. & Olswang, L. (1985, November). Assessing Early Communicative Intents: Naturalistic Observations or Elicitation Tasks? Annual Convention of the American Speech-Language-Hearing Association, Washington, D.C.
- Bain, B., & Olswang, L. (1985, November). Treatment Efficacy: Stimulability and Generalization." (*with Barbara Bain) . Annual Convention of the American Speech-Language-Hearing Association, Washington, D.C.
- McReynolds, L., Ingham, R., Thompson, C., Kearns, K., & Olswang, L. (1986, November) Generalization of Treatment Efforts in Speech and Language Disorders. Annual Convention of the American Speech-Language-Hearing Association, Detroit, Michigan.
- Olswang, L., Bain, G., Dollaghan, C., Campbell, T., & Fey, M. (1986, November). Treatment Efficacy: Critical Issues and Methodological Considerations. Annual Convention of the American Speech-Language-Hearing Association, Detroit, Michigan.
- Coggins, T., Warren, S., & Olswang, L. (1987, November). Treating Language Impaired Children: A Decade of Research in Review. Annual Convention of the American Speech-Language-Hearing Association, New Orleans.
- Olswang, L., & Scherer, N. (1989, March). Structured Discourse as a Language Intervention Strategy with Autistic Children. ASHF sponsored-Conference on Treatment Efficacy, San Antonio, March, 1989.
- Olswang, L., & Bain, B. (1989, October). Research by the Practitioner. Annual Convention of the Washington Speech, Language, Hearing Association, Spokane.
- Olswang, L., Crooke, P., & Johnson, G. (1992, November). Single to Multi-Words: A Journey with SLI Children." (*Miniseminar with Pamela Crooke and Glenn Johnson) Annual Convention of the American Speech-Language-Hearing Association.
- Bain, B., & Olswang, L. (1992, November). Examining Readiness for Learning Two-Word Utterances: Dynamic Assessment Validation. Annual Convention of the American Speech-Language-Hearing Association, San Antonio, Texas.
- Pinder, GL., & Olswang, L. (1992, November). The Development of Communicative Intent in a Physically Disabled Child. Annual Convention of the American Speech-Language-Hearing Association, San Antonio, Texas.
- Brian, J., & Olswang, L. (1993, November). Lexical Influences in Early Multiword Utterances of Specific Language Impaired Toddlers. Annual Convention of the American Speech-Language-Hearing Association, Anaheim, California.
- Olswang, L., & Brian, J. (1994, May). Productivity of Multi-Word Utterances in Children with Specific Expressive Language Impairment. Annual Symposium on Research in Child Language Disorders, University of Wisconsin, Madison, Wisconsin.
- Long, S., & Olswang, L. (1994, May). Readiness and Growth Curve Analysis for Analyzing Emergence of Multi-Word Utterances in Children with Specific Expressive Language Impairment. Annual Symposium on Research in Child Language Disorders, University of Wisconsin, Madison, Wisconsin.

- Hickey, E., Roger, M., Alarcon, N., & Olswang, L. (1996, August). Family-based Intervention for Chronic Aphasia: Measurement Issues. 7th International Aphasia Rehabilitation Conference, Cambridge, MA.
- Hickey, E., Roger, M., Alarcon, N., & Olswang, L. (1996, November). Family-based Intervention for Chronic Aphasia: An Alternative Service Delivery Model." (with E. Hickey, N. Alarcon, and M. Rogers). Annual Convention of the American Speech, Language, Hearing Association, Boston, MA.
- Rodriguez, B., & Olswang. (1997, May). Preschool Social Communication: The Effect of Acculturation. Annual Symposium on Research in Child Language Disorders, University of Wisconsin, Madison, Wisconsin.
- Olswang, L., Mastergeorge, A., & Bain, B. (1996, November). Socio-cultural History and Context in Intervention: Re-thinking Dynamic Approaches. Annual Convention of the American Speech, Language, Hearing Association, 1996, Boston, Mass.
- Hickey, E., Alarcon, N., Rogers, M. & Olswang, L. (1998, April). Treating the Disability: Measurement Issues in Efficacy Research. Treatment Efficacy Conference, Nashville, Tenn.
- Duchan, J., Higginbotham, J., Mastergeorge, A., Kovarsky, D., & Olswang, L. (1998, November). Diagnosis as Cultural Practice. Annual Convention of the American Speech, Language, Hearing Association San Antonio, Texas.
- Coggins, t., Schwartz, I., Timler, G., Garfinkle, A., & Olswang, L. (1998, November). Theory of Mind: Treating Children with Autism & Fetal Alcohol Syndrome. Annual Convention of the American Speech, Language, Hearing Association, San Antonio, Texas.
- Pinder, GL, Olswang, L., & Braverman, J. (1999, November). Communication in Infants with Physical Disabilities: Teaching parents to Teach. Annual Convention of the American Speech, Language, Hearing Association, San Francisco, CA.
- O'Malley, K., Coggins, T., & Olswang, L. (1999, November). Language abnormalities in Fetal Alcohol Syndrome" (Paper with Kieran O'Malley, & Truman Coggins". UK Conference on Behavioral Phenotypes, Birmingham, England.
- Timler, G., Olswang, L. (1999, May). Treatment of False Beliefs: Improving Social Communication Deficits in Children with Prenatal Alcohol Exposure. Symposium for Research in Child Language Disorders, University of Wisconsin, Madison, Wisconsin.
- Timler, G., Olswang, L., Coggins, T., Carmichael Olson, H. (2000, June). Are social-communication deficits theory of mind deficits: preparatory data on the mental state reasoning of children with fetal alcohol syndrome. Poster Presentation Symposium on Research in Child Language Disorders, University of Wisconsin .
- Hickey, E., Bourgeois, M., & Olswang, L. (2000, November). Conversation partners of elders with aphasia: an undergraduate service-learning program. Annual Convention of the American Speech, Language, Hearing Association, Washington, DC.
- Hickey, E., Olswang, L., & Bourgeois, M. (2000, November). Effects of training volunteer conversation partners of elders with aphasia. Annual Convention of the American Speech, Language, Hearing Association, Washington, DC.

- Timler, G., Costanza-Smith, A., Coggins, T., & Olswang, L. (2000, November). Assessing social communication across contexts: implications for Fetal Alcohol Syndrome. Annual Convention of the American Speech, Language, Hearing Association Convention, Washington, DC.
- Stone-Goldman, J., & Olswang, L. (2001, November). Teaching cultural sensitivity to undergraduates using ethnographic research methodology. Annual Convention of the American Speech, Language, Hearing Association Convention, New Orleans, LA.
- Donaldson, A., Olswang, L., & Coggins, T. (2001, November). Innovation in clinical research partnerships: community collaboration through technology. Annual Convention of the American Speech, Language, Hearing Association Convention, New Orleans, LA.
- Olswang, L., Donaldson, A., Svensson, L., & Dalton, J. (2002, July). Seeing is believing: direct observation of social communication problems in the school. IX International Congress for the Study of Child Language (IASCL) and the Symposium on Research in Child Language Disorders (SRCLD), University of Wisconsin, Madison, WI.
- Coggins, T. & Olswang, L. (2002, July). Exploring social communication deficits in school-age children. IX International Congress for the Study of Child Language (IASCL) and the Symposium on Research in Child Language Disorders (SRCLD), University of Wisconsin, Madison, WI.
- Svensson, L. & Olswang, L. (2002, November). Observing social communication problems in school: reliability issues. Annual Convention of the American Speech, Language, Hearing Association Convention, Atlanta, GA.
- Donaldson, A., Olswang, L. & Coggins, T. (2002, November). Social-interaction skills of children with autism. Annual American Speech, Language, Hearing Association Convention, Atlanta, GA,.
- Struve, B., Saunders, M., & Olswang, L. (2003, May). Social feedback as a preferred reinforcer in adults with profound multiple impairments. Association for Behavior Analysis, 29th Annual Convention, San Francisco, CA.
- Murphy, K., Saunders, R., & Olswang, L. (2003, May). Effects of auditory and visual stimuli in the social environment of switch users. Association for Behavior Analysis, 29th Annual Convention, San Francisco, CA..
- Olswang, L., Svensson, Donaldson, A., Beilinson, J., & Coggins, T. (2003, November). Observing social communication in schools: reliability snags and solutions. Annual Convention of the American Speech, Language, Hearing Association, Chicago, Ill.
- Klasner, E., Yorkston, K., & Olswang, L. (2003, November). Dysarthric speech: how do listeners make sense of it? Annual Convention of the American Speech, Language, Hearing Association Convention, Chicago, Ill.
- Parker, L., Stone-Goldman, J., Olswang, L. (2004, November). Parent participation in early intervention: an examination of cultural differences (poster session), American Speech, Language, Hearing Association Convention, Philadelphia, PA.
- Donaldson, A., & Olswang, L. (2004, November). Assessing the initiation skills of children with autism. Annual Convention of the American Speech, Language, Hearing Association, Philadelphia, PA.

- Camilleri, B., Donaldson, A., Law, J., & Olswang, L. (2005, November). Two clinical applications of dynamic assessment: an international perspective. Annual Convention of the American Speech, Language, Hearing Association, San Diego, CA.
- Hanson, R., & Olswang, L. (2005, November). Prelinguistic signals & strategies of requesting. Annual Convention of the American Speech, Language, Hearing Association, San Diego, CA.
- Mastergeorge, A., & Olswang, L. (2005, November). The co-construction of joint attention in infant-mother dyads. Annual Convention of the American Speech, Language, Hearing Association Convention, San Diego, CA.
- Munce, A., Olswang, L., Saunders, R., Dowden, P., & Klasner, E. (2005, November). Adults with severe multiple-disabilities: types and frequencies of behaviors. Annual Convention of the American Speech, Language, Hearing Association Convention, San Diego, CA.
- Olswang, L. (2006, October). Social communication classroom performance: how do children with prenatal alcohol exposure spend their time? National Organization on Fetal Alcohol Syndrome, Linwood, WA.
- Mastergeorge, A., Olswang, L., & Masyn, K. (2007, March). The role of communicative gestures in mother-child dyads: the trajectory of joint attention. Society for Research in Child Development, Boston, MA.
- Hanson, R., & Olswang, L. (2007, October). Parental attributions of prelinguistic communication. Annual Convention of the Washington State Speech, Language and Hearing Association, Redmond, WA.
- Olswang, L., Coggins, T., Timler, G., & Svensson, L. (2007, November). Social Communication: Assessing Children with Complex Profiles. Annual Convention of the American Speech, Language, and Hearing Association, Boston, MA.
- Mastergeorge, A., Olswang, L., & Masyn, K. (2008, March). The ontogeny of joint attention: the role of child effects in infant-mother interaction. International Conference on Infant Studies, Vancouver, BC.
- Hanson, B., & Olswang, L. (2010, March). Prelinguistic intentional communication: sending a clear message with eyes, hands, and voice. International Conference on Infant Studies (ICIS), Baltimore, MD.
- Stratton, J., Greenslade, K.J., Pinder, G.L., Olswang, L., & Dowden, P. (2010, October). Structuring intervention for preverbal children. Presented at the Washington Speech and Hearing Association 2010 Annual Conference, Spokane, WA.
- Stratton, J., Olswang, L., Dowden, P., & Pinder, G.L. (2010, November). Shaping early communicative signals in preverbal children with motor impairments. Annual Convention of the American Speech-Language-Hearing Association, Philadelphia, PA.
- Stratton, J., Olswang, L., Dowden, P., & Pinder, G.L. (2011, June). Shaping early communicative signals: exploring child variability. Symposium for Research in Child Language, Madison, WI.
- Olswang, L., Stratton, J., Pinder, G.L., & Dowden, P. (2011, November). Planning intervention for young children with severe disabilities: dynamic assessment. American Speech-Language-Hearing Association Convention, San Diego, CA.

Dowden, P., Feuerstein, J., Olswang, L., & Pinder, GL (2012, November). Early intervention for intentional communication in children with physical disabilities. American Speech-Language-Hearing Association Convention, Atlanta, GA

Rowland, C., Brady, N., Cress, C., Dowden, P., Olswang, L., Thiemann-Bourque, K., Quinn, E. (2012, November). New Approaches to Assessment for Early Communicators. American Speech-Language-Hearing Association Convention, Atlanta, GA

Olswang, L (2012, November). Outcomes in Speech-Language Pathology: Contemporary Convergences - Implementation Research (Panel with L. Golper, P. Rao, Rogers, M) American Speech-Language-Hearing Association Convention, Atlanta, GA

Invited Presentations

"Cognitive Prerequisites to Language Development." Annual Convention of the Pacific Northwest Nonvocal Communication Group, November, 1978.

"Teaching as a Profession." Danforth-Compton Fellows Teaching Program, University of Washington, Spring Retreat, May 13-14, 1982.

"Application of Clinical Research to Work with Young Speech and Language Impaired Children." Speech and Hearing Association of Alberta, Edmonton, Alberta, October 21 and 22, 1983.

"Assessing Prelinguistic and Early Linguistic Behaviors." Glenrose Hospital Workshop, Edmonton, Alberta, February 21 and 22, 1985.

"Assessing Prelinguistic and Early Linguistic Behaviors in Low Functioning Children." Annual Convention of the California Speech and Hearing Association, Los Angeles, April 20, 1985.

"Informed Decision Making: Using Data for Determining How Long to Treat Children with Communication Disorders." Department of Speech Communication, Program in Communication Disorders, University of Texas at Austin, February 19, 1986.

"Informed Decision Making: Determining the Who, What and How Long of Treatment for Communication Disorders." Annual Seminar Sponsored by Speech-Language Pathology Department, St. Luke's Medical Center, Scottsdale, Arizona, February 28, 1986.

"Data Collection Procedures for Making Informed Clinical Decisions." Dual Session - ASHA Western Regional Conference, Seattle, Washington, July 6, 1986.

"Assessing Prelinguistic and Early Linguistic Behaviors in Developmentally Young Children." (*with Carol Stoel-Gammon) Division of Continuing Education in Audiology and Speech Sciences, University of British Columbia, Vancouver, B.C., February 19 and 20, 1988.

"Caseload Selection and Alternative Service Delivery for Language Impaired Children: Principles and Procedures." University of Nevada, Las Vegas and Reno, August 11, 12, 15, 16, 1988.

- "Treatment Efficacy Research Questions: Effects, Effectiveness and Efficiency." ASHF sponsored-Conference on Treatment Efficacy, San Antonio, March, 1989.
- "Predicting Outcomes: Crystal Ball Gazing." NICHD and Vanderbilt University co-sponsored conference, The Social Use of Language: Pathways to Success," Nashville, Tennessee, June 20-22, 1990.
- "Influence of Context on the Assessment and Treatment of Language Impaired Children" (*with Barbara Bain). Idaho State University, Department of Speech Pathology and Audiology, August 6-9, 1990.
- "Treatment Issues for Language Impaired Toddlers" and "Treatment Efficacy and Accountability in Communicatively Disorders Populations." Northern Illinois University, Dekalb, Illinois, April 4 and 5, 1991.
- "Competence in Experimental Treatment Research: Models of Training" (with Mary Elbert and Barbara Bain), First Biennial Symposium on Experimental Treatment Research, Purdue University, West Lafayette, Indiana, May 4-6, 1991.
- "Decision-Making for language impaired children." Idaho State University, Pocatello, Idaho, March 13, 1992.
- "Intervention Research: The Co-Mingling of Theory and Practice." Annual Symposium on Research in Child Language Disorders, University of Wisconsin, Madison, Wisconsin, June 5, 1992.
- "Treatment Efficacy Research: A Paradigm for Investigating Clinical Practice and Theory." Workshop on Treatment Efficacy Research in Stuttering, sponsored by the National Institute of Deafness and Communication Disorders, NIH, September 21, 1992.
- "Treatment Efficacy Research: A Paradigm for Investigating Clinical Practice and Theory." September 21, 1992.
- "Models for the Evaluation of Treatment Efficacy," Conference sponsored by the National Institute of Deafness and Communication Disorders, NIH and the American Speech-Language-Hearing Association, Discussion Group Facilitator, November 17-18, 1992.
- "Issues in Research Mentorship and Training - Gender Considerations: Pitfalls and Solutions." Conference on Research Mentorship and Training in Communication Sciences and Disorders sponsored by the National Institute of Deafness and Other Communication Disorders, NIH and the American Speech-Language-Hearing Foundation, May 6-7, 1993.
- "Speech-Language Pathologists as Providers of Direct Treatment: When Can We Be Most Effective?" and "Nature-Nurture: How Can We Best Affect Change." Conference on How Much Therapy is Enough, sponsored by the Neurological Centre of Vancouver, British Columbia, Canada, November 19-20, 1993.
- "Issues in Ethics: Case Scenarios." Panel presentation, Washington Speech and Hearing Association Convention, Bellevue, Washington, March 19, 1994.
- "Nature of Quantitative and Qualitative Measures." Second Symposium on Treatment Research, Chicago Rehabilitation Institute, Chicago, Illinois, April 8-9, 1994.
- "Specific Expressive Language Impairment: Late Talkers vs. Late Bloomers." Children's Hospital and Medical Center, Speech-Language Pathology Department, Seattle, Washington, July 19, 1994.

- "Remediation of Child Language Disorders." Language Disorders Course in the Department of Linguistic Science, University of Reading, November 11, 24, 1994.
- "Single Subject Designs and Clinical Research." Research Course in the Department of Linguistic Science, University of Reading, December 1, 1994.
- "Shaping Communicative Signals in Young Children with Cerebral Palsy: A Treatment Efficacy Study." Department of Psychology, University of Edinburgh, January 18, 1995.
- "Clinical Research in Communication Disorders." Department of Logopedics and Phoniatics, University of Goteborg, Goteborg, Sweden, October 16-20, 1995.
- "Philosophy for Intervention: The Role of Treatment Efficacy Research." Biannual Conference on Treatment Efficacy Research, Chicago, Ill, April 12, 1996.
- "Dynamic Assessment: Theory, Application and Research." (panel presentation) Annual Convention of the American Speech-Language-Hearing Association, Seattle, Washington, November 1996.
- "Assessing Treatment Efficacy: Practical Methods for the Clinician." Children's Care Hospital & School, Sioux Falls, SD, June 18-19, 1999.
- "Fetal Alcohol Syndrome: Theory of Mind and Social-Reasoning," Washington Speech and Hearing Association Annual Convention, October 8-9, 1999.
- "Language Intervention for Children with FAS and FAE; What Do We Know and Where Do We Go From Here?" Prevention and Management - Fetal Alcohol Syndrome and Prenatal Substance Abuse, 1997 Conference, Breckenridge, Colorado, September 26-27, 1997.
- "Mentoring" Speech/Language Pathology, Rehabilitation Medicine University of Washington Hospital and Harborview Hospital, January 22, 1998.
- "The Role of Language in the Cognitive Rehabilitation of Children Affected by Prenatal Alcohol Exposure." Meeting Sponsored by the Interagency Coordinating Committee on Fetal Alcohol Syndrome and Center for Disease Control, Bethesda, MD, September, 10-11, 1998.
- "Assessing Treatment Efficacy: Practical Methods for the Clinician." Children's Care Hospital & School, Sioux Falls, SD, June 18-19, 1999.
- "Fetal Alcohol Syndrome: Theory of Mind & Social Reasoning." WSHA 1999 Convention, Olympia, WA, October 8, 1999.
- "Clinical Methodology for Documenting Change." Goteborg University, Department of Logopedics and Phoniatics, Goteborg, Sweden, April 3-8, 2000.
- "Early Signals of Communication: Intervention for Babies with Physical Impairments." University of Bergen, Department of Psychology, Bergen, Norway, April 11, 2000.
- "Early Communication Development: Teaching Preverbal Signal to Infants with Physical Disabilities." 10th Annual Southwest Conference on Communicative Disorders, March 8-9, 2001.
- "Social Communication Problems in School-Age Children." Seattle Public Schools, Continuing Education Workshop for Speech-Language Pathologists, March 16, 2001.

- “Early Communication Development: Teaching Preverbal Signals to Infants with Disabilities.” Canadian Association of Speech-Language Pathologists and Audiologists. Victoria, B.C., April 24-27, 2002.
- “Social Communication Problems in School-age Children.” Canadian Association of Speech-Language Pathologists and Audiologists. Victoria, B.C., April 24-27, 2002.
- “Early Communication Development: Teaching Preverbal Signals to Infants with Disabilities.” Annual Convention of the Oregon Speech, Language Hearing Association, Eugene, OR, October 11, 2003.
- “Social Communication: Assessment and Intervention Ideas for Preverbal and School-age Children.” Queen Alexandra Centre, Victoria, BC, March 2007.
- “Conducting Research in Disorders of Social Communication: Some Methodological Lessons We have Learned from Studying Children with Fetal Alcohol Spectrum Disorders”, Symposium on Research in Child Language Disorders, Invited Tutorial with Truman Coggins, Madison, WI, June 7, 2007.
- “Social Communication: Assessment and Intervention Ideas for Preverbal and School-age Children.” Christine Seskus Memorial Speaker, ACSLPA – Alberta College of Speech Language Pathology Conference, Alberta, Canada, October, 25, 2007.
- “Social Communication Development and Disorders: Preverbal and School-age Children.” Peace County Health, Grand Prairie, Alberta, Canada, September 4 and 5, 2008.
- “Treating Babies with Motor Impairment: Building Social Engagement and Early Signals of Communication.” John J. O’Neill Lecture Series, March 13, 2009.
- “Social Engagement and Early Communication: Theory to Practice.” Third Annual Leadership Conference, University of Massachusetts, Amherst, April 30, 2010.

PUBLICATIONS

- Holliday, F. & Olswang, L. (1974). School-Community Program in Early Childhood Development. Evanston, Illinois: District #65 Evanston Public School System.
- Olswang, L. & Carpenter, R. (1978). Elicitor effects on the language obtained from young language-impaired children. Journal of Speech and Hearing Disorders, 43, 76-88.
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- Olswang, L., Thompson, C., Warren, S. & Minghetti, N. (Eds.) (1990). Treatment Efficacy: Research in Communication Disorders. American Speech-Language-Hearing Foundation.
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- Mellstrom, B., Saunders, M., Saunders, R., & Olswang, L. (2005). Interaction of behavioral state and microswitch use in individuals with profound multiple impairments. Journal of Developmental and Physical Disabilities, 17, 35-53.
- Olswang, L., Pinder, G-L, & Hanson, R. (2006). Communication in young children with motor impairments: Teaching caregivers to teach. Seminars in Speech and Language. Current Issues in Providing Services to Infants and Toddlers, 27, 199-214.
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- Olswang, L., Coggins, T., & Svensson, L. (2007). Assessing social communication in the classroom: observing manner and duration of performance. Topics in Language Disorders, (27), 107-125.

- Donaldson, A., & Olswang, L. (2007) Investigating requests for information in children with autism spectrum disorders: static versus dynamic assessment. Advances in Speech-Language Pathology, 1-15.
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- Donaldson, A., & Olswang, L. (2008). Teaching self-initiations within the natural environment: a case study. Perspectives on Language Learning and Education, 15 (2), 22-35.
- Olswang, L., Svensson, L., & Astley (2010). Observation of classroom social communication: Do children with fetal alcohol syndrome disorders spend their time differently than their typical peers? Journal of Speech, Language, and Hearing Research, 53, 1687-1703.
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- Olswang, L., & Bain., B. (2013). Treatment research. In L.A. Golper and C. Fratalli (Eds). Outcomes in Speech-Language Pathology, 2nd Edition. New York: Thieme Publishing.
- Olswang, L., Feuerstein, J., Dowden, P., Pinder, G.L. (in press). Validating Dynamic Assessment of Triadic Gaze for Young Children with Severe Disabilities. American Journal of Speech-Language Pathology.
- Kjellmer, L., & Olswang, L. (in press). Variability in classroom social communication: performance of children with fetal alcohol spectrum disorders and typically developing peers. Journal of Speech, Language, and Hearing Research.

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ACADEMIC AND CLINICAL PREPARATION

Clinical Linguistics:

Ph.D., Speech and Hearing Sciences
University of Washington
Mentor: Carol Stoel-Gammon, Ph.D.
September 2001 – June 2006

Certificate of Clinical Competence, Speech-Language Pathology
American Speech-Language-Hearing Association, June 2006

M.S., Speech-Language Pathology
University of Washington, Seattle, August 2001

B.S., Speech and Hearing Sciences
University of Washington, Seattle, August 1998

Medical Genetics:

Postdoctoral Research Trainee
University of Washington
Mentor: Wendy Raskind, M.D., Ph.D.
October 2007 – September 2010

Graduate Certificate in Statistical Genetics
Dpt. of Biostatistics, University of Washington
May 2010. Five graduate courses in genome sciences and biostatistics, StatGen seminar, capstone project. Prerequisites in genetics, genomics, biochemistry, and probability.

Training in electrophysiologic brain measures, provided by H. Panagiotides, Ph.D., University of Washington Institute for Learning and Brain Science, January 2008 – September 2008

PROFESSIONAL EXPERIENCE

02/2012 – pres.	Research Assistant Professor, Dpt. of Speech & Hearing Sciences, University of Washington
04/2011 – 02/2012	Acting Assistant Professor, Dpt. of Speech & Hearing Sciences, University of Washington
10/2010 – 08/2011	Learning Specialist, The Learning and Language Clinic, Seattle. Part-time.
10/2007 – 09/2010	Postdoctoral Research Trainee, NIH institutional training grant, Dpt. of Speech and Hearing Sciences, University of Washington. "Genetics of Communication Disorders."
08/2005 – 06/2009	Speech-language pathologist, Shoreline School District, Shoreline (WA). Academic leave 2007 - 2008; part-time 2008 - 2009. Elementary and high schools.
09/2003 – 06/2005	Predoctoral Teaching/Research Associate, Dpt. of Speech and Hearing Sciences, University of Washington.
09/2001 – 09/2003	Predoctoral Research Trainee, NIH institutional training grant, Dpt. of Speech and Hearing Sciences, University of Washington.
08/2001 – 09/2001	Speech-language pathologist, Seattle Children's. Part-time substitute.

CERTIFICATES AND LICENSURE

2010	Graduate Certificate in Statistical Genetics, Dpt. of Biostatistics, University of Washington
2010	Speech-Language Pathology License, Washington State Dpt. of Health
2006	Certificate of Clinical Competence, American Speech-Language-Hearing Association
2005	Educational Staff Associate, Washington State Office of the Superintendent of Public Instruction

ACTIVE RESEARCH PROJECTS

Molecular genetics of speech sound disorder. Role: PI. Co-Investigators include Kathy Chapman, Ph.D., Wendy Raskind, MD, Ph.D., and Ellen Wijsman, Ph.D. Funded with an NIH R03 grant, 4/2011 – 3/2014. Behavioral data and DNA have been collected from several multigenerational families with severe familial speech disorders. Data reduction, statistical analyses, and DNA genotyping and exome sequencing are in progress. Initial results from three of 11 families are consistent with a phenotype of childhood apraxia of speech characterized by global deficits in sequential processing. Aims are to identify causal genes and to build a biologically based disorder subtype catalog. Future goals are to develop preventative and early interventions for infants at genetic risk for speech disorders. Planned R01 proposal submission: February 2013.

Multidisciplinary study of processing speeds and modes as genetic endophenotypes in dyslexia. Role: PI. Collaborators include Tom Grabowski, MD, Heracles Panagiotides, Ph.D., Wendy Raskind, MD, Ph.D., and Kelly Tremblay, Ph.D. Currently in its pilot phase with funding from local grants. The aim is to generate converging evidence of slowed and/or disorganized information processing across multiple modalities (behaviors, cortical electrophysiology, brainstem physiology, structural and functional whole-brain imaging) and to identify genetic etiologies of endophenotypes. Similar to the speech genetics study, long-term goals are to develop preventative and early interventions for infants at genetic risk for dyslexia. Pilot grant for MRI imaging for 10 participants, \$6,000, Dpt. of Radiology, University of Washington. Royalty Research Fund grant, \$35,520 awarded on 1/4/2013. Planned R01 proposal submission: June 2013.

GRANT ACTIVITIES

In preparation **NICHD R01** 01/2014 – 12/2018. A taxonomy of speech sound disorder based on genetic etiologies. Role: PI. Co-investigators: Wendy Raskind, MD, PhD, Kathy Chapman, Ph.D., Michael Dorschner, Ph.D., Ian Stanaway, B.S.

NIDCD R01 04/2014 -- 3/20/2018. Multidisciplinary study of processing speeds and modes as endophenotypes of dyslexia. Role: PI. Co-Investigators: Tom Grabowski, M.D., Wendy Raskind, M.D., Ph.D., Kelly Tremblay, Ph.D., Heracles Panagiotides, Ph.D.

Under review **University of Washington Institute of Translational Health Science** Add-on component of the awarded Royalty Research Fund grant to obtain structural and functional brain scans in participants with dyslexia and controls.

Awarded **Royalty Research Fund.** Electrophysiologic measures of processing speed in dyslexia (ITHS). \$35,530. Role: PI. Award date: January 4, 2013.

Ongoing **University of Washington Centers for Mendelian Genomics (Director: Debbie Nickerson, Ph.D)**
08/2012 – project completion. Dense SNP chips for 9 DNA samples and whole exome sequences for two DNA samples (\$4,212). Project goal is to identify causal genes in a multigenerational family with severe speech sound disorder. Role: PI.

University of Washington Magnetic Resonance Research Laboratory Pilot Grant.
02/2012 – 2/2013. Ten scanner hours (\$6,000) for pilot study “Multidisciplinary study of processing speeds and modes as endophenotypes of dyslexia..” Role: PI.

Small Grant Program (R03), NIDCD, PAR-10-055, 1R03DC010886-01A1, \$468,000.00,
04/2011 – 03/2014. Title: Genetics of Speech Sound Disorders. Role: PI.

Annual Supplemental Departmental Support, Dpt. of Speech & Hearing Sciences, to be used as needed. \$1,500. Current use: Generating pilot data towards an R01 grant proposal, “Multidisciplinary Study of Processing Speeds and Sequential Processing in Dyslexia.” Role: PI.

Completed **Lessons for Success Research Conference, NIDCD, ASHA, and ASH Foundation,**
Rockville, MD, 04/27 – 04/29, 2011.

2011 ASHA Research Conference Travel Grant, American Speech-Language-Hearing Foundation, 4/2011. Travel expenses to attend the Lessons for Success Research Conference in Rockville, MD.

New Century Scholars Research Grant, American Speech-Language-Hearing Foundation, \$10,000, 11/16/2009. Title: Genetic substrates of speech sound disorder: Testing three novel hypotheses. Role: PI.

05 T32 DC00033-17 Postdoctoral institutional NIH grant. 10/2007 – 09/2010, Dpt. of Speech and Hearing Sciences, University of Washington.

2nd Annual Short Course on Statistical Genetics and Statistical Genomics, NSF-funded, organized by the Section on Statistical Genetics, The University of Alabama at Birmingham. July 13 – 17, 2009, Honolulu. Complex traits with quantitative variation.

05 T32 DC00033-10 Predoctoral institutional NIH grant. 09/01 – 09/03. Dpt. of Speech and Hearing Sciences, University of Washington.

Student Tech Fee Grant, University of Washington. \$103,000, 2004, expansion of the Student Research Lab, Dept. of Speech and Hearing Sciences, University of Washington. Role: Collaborator.

PUBLICATIONS

Peer-Reviewed Publications

- Raskind, W.H., **Peter, B.**, Richards, T., Eckert, M., & Berninger, V. (2013). The genetics of reading disability: From phenotypes to candidate genes. *Frontiers in Educational Psychology*, Article 601. doi: 10.3389/fpsyg.2012.00601.
- Peter, B.**, Button, L.A., Chapman, K., Stoel-Gammon, C., & Raskind, W.H. (2013). Global sequencing deficits in a multigenerational family with familial childhood apraxia of speech. *Clinical Linguistics & Phonetics. Early Online*, 1-29, DOI: 10.3109/02699206.2012.736011.
- Button, L.A., **Peter, B.**, Stoel-Gammon, C., & Raskind, W.H. (2013). Sequencing deficits in multiple modalities as a residual effect of childhood apraxia of speech in adults: A replication study. *Clinical Linguistics & Phonetics, Early Online* 1-21. DOI: 10.3109/02699206.2012.744097.
- Peter, B.**, Matsushita, M., & Raskind, W.H. (2012). Motor sequencing deficit as an endophenotype of speech sound disorder: A genome-wide linkage analysis in a multigenerational family. *Psychiatric Genetics* 22(5), 226-234. PMID: 22517379.
- Peter, B.** (2012). Oral and hand movement speeds are associated with language ability in children with speech sound disorder. *Journal of Psycholinguistic Research*, 41(6), 455-474. DOI: 10.1007/s10936-012-9199-1. PMID: 22411590.
- Peter, B.**, & Raskind, W.H. (2011). Evidence for a familial speech sound disorder subtype in a multigenerational family study of oral and hand motor sequencing ability. *Topics in Language Disorders*, 31(2), 145-167. PMID: 21909176.
- Peter, B.**, Matsushita, M., & Raskind, W.H. (2011). Global performance speeds in a family study of dyslexia: factor analytic models. *Journal of Speech, Language, and Hearing Research*, 54(3), 885-899. PMID: 21081672.
- Peter B.**, Raskind WH, Matsushita M, Lisowski M, Vu T, Berninger VW, Wijsman EM, Brkanac Z. (2011). Replication of *CNTNAP2* association with nonword repetition and support for *FOXP2* association with timed reading and motor activities in a dyslexia family sample. *Journal of Neurodevelopmental Disorders*, 3(1):39-49. PMID: 21484596. PMCID: PMC3163991.
- Peter, B.**, Larkin, T. & Stoel-Gammon, C. (2009). Octave-shifted pitch matching: The effects of lexical stress and speech sound disorder. *Journal of the Acoustical Society of America*, 126(4):1663-1666. PMID: 19813781.
- Raskind WH, Matsushita M, **Peter B.**, Biberston J, Wolff J, Lipe H, Burbank R, Bird TD. 2008. Familial dyskinesia and facial myokymia (FDFM): Follow-up of a large family and linkage to chromosome 3p21-3q21. *American Journal of Medical Genetics Part B*. 150B(4):570-574. PMID:18980218. PMCID: PMC3116722.
- Peter, B.**, & Stoel-Gammon, C. (2008). Central timing deficits in children with primary speech disorders. *Clinical Linguistics & Phonetics*, 22(3), 171-198. PMID: 18307084.
- Peter, B.**, & Stoel-Gammon, C. (2005). Timing errors in two children with suspected childhood apraxia of

speech (sCAS) during speech and music-related tasks. *Clinical Linguistics & Phonetics*, 19(2), 67-87. PMID: 15704499.

Peter, B., & Stoel-Gammon, C. (2004). Subsyllabic component durations in three children with suspected childhood apraxia of speech, two children with typical development, one child with phonologic delay, and one adult. *Speechpathology.com*, 25 October 2004, http://speechpathology.com/articles/arc_disp.asp?id=238.

Peer-Reviewed Publications in Preparation

Stanaway, I., Dorschner, M., Raskind, W.H., & **Peter, B.** Sequencing of a familial genome reduced representation library for causal variation in a family with a severe speech sound disorder.

Foster, B., Haas, H., & **Peter, B.** Direct and octave-shifted pitch matching during nonword imitations in men, women, and children.

Publications and Submissions Not Peer-Reviewed

Peter, B. (2012). The future of genetics at our doorstep. *ASHA Leader*, 18 September 2012 (Invited review).

Peter, B. (2009). Golden Apple: Carol Stoel-Gammon. *ASHA Leader*, 3 March 2009, Vol. 14 Issue 3, p47.

Books:

B. Peter & A. MacLeod (Eds) (in press). *Comprehensive perspectives on speech sound development and disorders: Pathways from linguistic theory to clinical practice*. New York: Nova Science Publishers. Projected publication date: January 2013.

Book Chapters:

Peter, B. (in press). Biological substrates of speech: A brief synopsis of the developing neuromuscular system. In: **B. Peter** & A. MacLeod (Eds). *Comprehensive perspectives on speech sound development and disorders: Pathways from linguistic theory to clinical practice*. New York: Nova Science Publishers. Projected publication date: December 2012.

Peter, B. (in press). Subtypes of primary speech sound disorders: Theories and case studies. In: **B. Peter** & A. MacLeod (Eds). *Comprehensive perspectives on speech sound development and disorders: Pathways from linguistic theory to clinical practice*. New York: Nova Science Publishers. Projected publication date: December 2012.

Peter, B. (in press). Interactions between speech sound disorder and dyslexia. In: **B. Peter** & A. MacLeod (Eds). *Comprehensive perspectives on speech sound development and disorders: Pathways from linguistic theory to clinical practice*. New York: Nova Science Publishers. Projected publication date: December 2012.

Peter, B. (in press). Appendix 3: Statistical properties of standardized tests. In: **B. Peter** & A. MacLeod (Eds). *Comprehensive perspectives on speech sound development and disorders: Pathways from linguistic theory to clinical practice*. New York: Nova Science Publishers. Projected publication date: December 2012.

Peter, B. (2010). New frontiers in understanding speech sound disorder: Unraveling the mysteries of genetic causes. In: A. E. Harrison (Ed), *Speech disorders: Causes, treatment and social effects*, pp. 119-137. New York: Nova Publishers. ISBN: 978-1-60876-213-2

Peter, B. (2010). Complex disorder traits in a three-year-old boy with a severe speech-sound disorder. In: S. Chabon & E. Cohn (Eds), *Communication disorders: A case-based approach*, pp. 156-163. Delaware: Pearson.

Stoel-Gammon, C., & **Peter, B.** (2008). Syllables, segments, and sequences: Phonological patterns in the words of young children acquiring American English. In: B. Davis & K. Zajdó (Eds.) *Syllable development: The Frame/Content Theory and Beyond*. Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Conference Proceedings:

Peter, B., Stoel-Gammon, C., & Kim, D. (2008). Octave equivalence as a measure of stimulus-response similarity during nonword and sentence imitations in young children. In: *Fourth Conference on Speech Prosody - Proceedings*, S. Maduerira, C. Reis & P. Barbosa (Eds). São Paulo and Campinas: Luso-Brazilian Association of Speech Sciences, pp. 731-734.

Selected Conference Presentations

- Peter, B.**, Chapman, K., & Raskind, W. (2012). Sequential processing deficit as a cognitive endophenotype in a multigenerational family with a severe speech sound disorder. 62nd Annual Meeting of the American Society of Human Genetics, San Francisco, Nov. 6-10, 2012.
- Peter, B.**, Matsushita, M., Sun, E., & Raskind, W.H. Suggestive evidence of myelin gene linkage in familial speech disorders. Technical research session. American Speech-Language-Hearing Association Convention, San Diego, Nov. 17 – 19, 2011.
- Peter, B.**, Matsushita, M., Oda, K., & Raskind, W.H. Replication of a *FOXP2* association with motor speed during an oral task in families with familial speech sound disorder. Poster presentation, 12th International Congress of Human Genetics and 61st Annual Meeting of the American Society of Human Genetics, Montreal, Oct. 10 – 15, 2011.
- Peter, B.** & Raskind, W.H. (2010). Genetics of speech sound disorder: Testing three novel hypotheses. Technical research session, American Speech-Language-Hearing Convention, Philadelphia, Nov. 18-20.
- Peter, B.**, Matsushita, M. & Raskind, W.H. (2010). Limits in processing speed as a possible endophenotype in dyslexia. Poster presentation, 60th Annual Meeting of the American Society of Human Genetics, Washington, DC, Nov. 3-6, 2010.
- Peter, B.**, Brkanac, Z., Matsushita, M., Lisowski, M., Vu T., Berninger, V.W., Wijsman E.M. & Raskind, W.H. (2009). *FOXP2* and *CNTNAP2* influence phonology, motor praxis, and reading in individuals with dyslexia. Poster presentation, 59th Annual Meeting of the American Society of Human Genetics, Honolulu, Oct. 20 – 24, 2009.
- Peter, B.** & Stoel-Gammon, C. (2009). Speed limits in the central nervous system: An endophenotype in children with speech sound disorder? Child Phonology Conference, Austin, June 8-9, 2009.
- Peter, B.** & Stoel-Gammon, C. (2008). Octave-shifted pitch matching in the nonword and sentence imitations of children with speech sound disorders. Poster presentation at the Child Phonology Conference, Purdue University, June 2-3, 2008.
- Peter, B.** & Stoel-Gammon, C. (2007). Childhood apraxia of speech: Discrete clinical entity, spectrum disorder, or just a fancy term for the most severe cases of primary speech disorders? Presentation at the Child Phonology Conference, University of Washington, Seattle, June 22 – 23, 2007.
- Peter, B.** & Stoel-Gammon, C. (2006 a). Acoustic correlates of primary motor speech disorders in children during oral and hand tasks. Poster presented at the 4th Joint Meeting of the Acoustical Society of America and the Acoustical Society of Japan, Honolulu, Nov 28 – Dec 2, 2006.
- Peter, B.** & Stoel-Gammon, C. (2006 b). Typology of primary speech disorders based on multivariate classification. Seminar presented at the American Speech-Language-Hearing Association Convention, Miami, Nov 15-18, 2006.
- Peter, B.** & Stoel-Gammon, C. (2006 c). Timing accuracy in oral and limb tasks as associated characteristic of primary speech disorders in children. Presentation at Rhythm, Time and Temporal Organisation, 2-4 June, 2006, Institute for Music in Human and Social Development, University of Edinburgh.
- Stoel-Gammon, C., Kim, M-J., **Peter, B.** & Dawson, G. (2005a). Linguistic vocalizations of children with autism: Phonetic and phonological patterns. Poster at CPEA/STAART, Bethesda, Maryland, Nov 7-9, 2005.
- Peter, B.**, & Stoel-Gammon, C. (2005 b). Acoustic correlates of motor speech impairment in children. Poster presented at the American Speech-Language-Hearing Association Convention, San Diego, Nov 17-20, 2005.
- Peter, B.** & Stoel-Gammon, C. (2005 c). A data-based classification of child speech disorders of unknown origin. Poster presented at the X. International Congress for the Study of Child Language. Berlin, Germany, July 25 – 29, 2005.

Peer reviewer

Clinical Linguistics & Phonetics
Genetics in Medicine
Journal of Child Language
Journal of Speech, Language, and Hearing Research
Life Sciences

SELECTED INVITED TALKS

Childhood apraxia of speech in multigenerational families: Genes and generations. Workshop at the National Childhood Apraxia of Speech Conference, Denver, July 11-13, 2013.

Webinar: Genetics of speech, language, and reading disorders. CASANA, March 6 and 7, 2013.

2013 Childhood Apraxia of Speech Research Symposium. Invited panelist responding to "Current State of the Art in Genomic Research," a presentation by Simon Fisher. February 21-22, 2013.

From genes to waves: Biological bases of communication disorders. University of Washington, January 31, 2013.

Speech sound disorders in multigenerational families and the quest for causal genes. Neurodevelopmental Disorders Research Consortium, University of Washington, January 11, 2013.

Articulatory phonetics of Modern Greek: A speech scientist's approach to learning a foreign language. Guest lecture in Jackson School of International Studies C211 (Second Year Modern Greek), October 25, 2012.

From genes to waves: Biological bases of communication disorders. The Pennsylvania State University, February 6, 2012.

Genes, brains, behaviors: A multidisciplinary study of processing speed. Language Imaging Interest Group, Integrated Brain Imaging Center, University of Washington, January 25, 2012.

Phenotypic subtypes and genetic associations in multigenerational families with speech sound disorder. Seminars in Hearing and Communication Sciences, University of Washington, January 2011.

Women in Science. Invited panelist, Capstone Experience Series, Seattle Pacific University, February 2010.

Genetics of communication disorders: The role of *FOXP2* and *CNTNAP2* in measures of phonemic awareness, reading, and motor praxis. Seminars in Hearing and Communication Sciences, University of Washington, March 2010.

Molecular genetics of speech and language disorders. Invited speaker, Capstone Experience Series, Seattle Pacific University, February 2008.

Behavioral and molecular typology of primary speech sound disorders. Invited speaker, University of Oregon, February 2007.

AFFILIATIONS AND HONORS

2012 – pres. Virginia Merrill Bloedel Hearing Research Center

2011 – pres. Center on Human Development and Disability.

2010 – pres. Special Interest Group "Language and Imaging," Integrated Center for Brain Imaging, University of Washington.

2009 – pres. Institute of Translational Health Sciences.

2009 – pres. Northwest Institute of Genetic Medicine.

2009 – pres. Center of Translational Clinical Science, Seattle Children's Hospital. Sponsor: Bonnie Ramsey, MD.

2009 – 2010 Postdoctoral Scholar, Division of Medical Genetics, University of Washington.

2007 – 2011 Affiliate Instructor, Dpt. of Speech and Hearing Sciences, University of Washington.

2001 Carrell-Miner Award for Clinical Achievement in Speech-Language Pathology. Given by the Dept. of Speech and Hearing Sciences, University of Washington, to one graduating speech-language pathology master's student per year in recognition of outstanding clinical performance.

PROFESSIONAL MEMBERSHIPS

2012 – pres. National Coalition for Health Professional Education in Genetics (NCHPEG)

2009 – pres. American Society of Human Genetics (ASHG)

2005 – pres. American Speech-Language-Hearing Association (ASHA)

2004 – pres. Washington Speech & Hearing Association (WSHA)

AREAS OF RESEARCH INTERESTS AND MENTORSHIP

Genetics of speech sound disorders

Genetics of dyslexia

Prevention and early intervention in children at genetic risk for speech and reading disorders

A unified theory of processing speeds (genetics, brain morphology, brain physiology, behavioral tasks)

The role of sequencing ability in motor and cognitive tasks

Direct and octave-shifted pitch matching in imitation tasks

The role of coarticulation across word boundaries in native and foreign speakers of English

RESEARCH SUPERVISION

Master's Program

Erika Hutchison, 2011 – 2012. Role: Committee member, advising on statistics (multivariate regression, factor analysis, cluster analysis)

Honors Program

Bronsyn Springer Foster, 2011 – 2012. Role: Faculty sponsor

Heather Haas, 2011 - 2012. Role: Faculty sponsor

Le Button, 2011 – 2012. Role: Faculty sponsor

TEACHING EXPERIENCE

Saint Louis University Invited Instructor

2012 Distinguished Lecture Series, "Genetic causes of communication disorders: Basic science to clinical management" (2.75 semester credits; July 30 through August 3, 2012). This course was approved for CE credits by the American Speech-Language-Hearing Association and covered the core competencies in genetics for speech-language pathologists and audiologists recommended by the National Coalition for Health Professional Education in Genetics.

University of Washington Instructor

SPHSC 539 (Assessment and Treatment of Childhood Speech and Phonological Disorders), SPR 2004 (mentored instructor supervised by Dr. Stoel-Gammon); AU 2011 (instructor assisted by Derek Isetti, M.S., CCC-SLP, as TA; Course text was the prepublication version of B. Peter and A. MacLeod, Eds. (2012) *Comprehensive perspectives on speech sound development and disorders: Pathways from linguistic theory to clinical practice*. New York: Nova Science Publishers)

SPHSC 449 (Neuroanatomy and Neurogenic Disorders Across the Lifespan) SU 2007; SU 2008; SU 2009. Covered history of neuroscience, neural cell activities, CNS and PNS structures, special senses, and a wide variety of neurogenic disorders, with an emphasis on communicative behaviors. Lab component with human CNS tissues.

SPHSC 499 (Honors Research) Multiple quarters 2011 to 2012. Three projects based on the Speech Family Genetics Study.

SPHSC 499 (Undergraduate Research) Multiple quarters 2005 to present. Mentored several teams of undergraduate students in analysis and interpretation of behavioral and acoustic data,

SPHSC 599 (Graduate Research) Multiple quarters 2010. Mentored a graduate student in analysis and interpretation of speech testing.

SPHSC 499 (Undergraduate Research) SPR 2007. Mentored a University of Washington undergraduate student at the school site for a job-shadow experience, twice weekly, for the duration of one university quarter ("Pipeline to Schools").

SPHSC 303 (Language Science). AU 2004. Developed a course plan that links each linguistic domain to specific disorders. Designed lecture format rich in video and audio presentations. Drew crossbars to the perspectives of other disciplines (e.g., computational linguistics, developmental psychology, neuroscience).

SPHSC 111 (American English Speech Sounds). AU 2001, WI 2004, SPR 2004. Developed a course plan built on principles of speech-language pathology. Students, all non-native speakers of English, participated in labs designed with hierarchical practice opportunities, culminating in group presentations of newscast-style reports on selected topics.

University of Washington Teaching Assistant

SPHSC 302 (Phonetics). Instructor: A. MacLeod. WI 2005. Led three lab sections, prepared parts of the materials, and graded student work.

SPHSC 425 (Speech, Language, and the Brain). Instructor: P. Kuhl, Ph.D. AU 2003, AU 2004. Led/co-led three lab sections, set up computer labs, and graded student work.

LANGUAGE PROFICIENCIES

German: Fluent, spoken and written (native language)

English: Fluent, spoken and written

French: Working knowledge, spoken and written

Latin: Working knowledge, written

Koine Greek: Basic knowledge, written

DANA LYNN ROBINSON

4211 South Juneau Street, Seattle, WA 98118 | (206) 898-2974 | danasloc@gmail.com

EDUCATION

University of Washington, Seattle, WA

M.S. in Speech Language Pathology

2007

Thesis: "The Effect of Feedback Schedule Manipulation on Speech Priming Patterns and Reaction Time"

University of Washington, Seattle, WA

B.S. in Speech and Hearing Sciences

2005

Rutgers College of Rutgers University, New Brunswick, NJ

B.A. in English and Religion

1999

RELEVANT EXPERIENCE

University of Washington

Clinical Instructor

June 2012 –

Present

Supervise graduate students in speech language pathology in child practicum experiences including onsite supervision and training, teaching specific skills and treatment methods, supporting and revising paperwork, and collaborating with faculty in order to provide current research and best practices.

Seattle Public Schools

Speech Language Pathologist

August 2007 –

Present

Provide direct speech language services to a caseload diverse in terms of cultural and socio-economic background of the students as well as disorder types and severity, consult with parents and teachers, provide training for staff on procedures and increasing student communication, supervise graduate student clinicians, and complete all documentation including evaluations, individualized education plans, therapy logs, and educational materials.

Seattle Public Schools

Program Leadership Team Member

September 2010 – August

2012

Represent the central region cluster of speech language pathologists in Seattle Public Schools, provide feedback to the leadership team as well as individual cluster members regarding policies and procedures, participate in the assignment process, update and clarify eligibility criteria, and vote on various program proposals.

University of Washington

Clinical Associate

January 2012 – August

2012

Recognized as a contributing member of the University of Washington community by supervising University of Washington graduate students in the Seattle Public Schools, participating in ongoing professional development, and serving as a consultant to faculty regarding speech language services in the schools.

Seattle Public Schools

**Speech Language Pathology Intern, Seattle Public Schools
2007**

Spring Quarter -

Took over the caseload and duties of the supervising speech language pathologist including direct service, parent and teacher consultation, evaluation, plan development, and recording therapy data

University of Washington

Research Assistant

2006-2007

Assisted in management of the Motor Speech Disorders Laboratory, ran research participants through protocols, compiled data and prepared it for analysis, compiled lab manual, and trained other graduate students on lab procedures and activities.

CERTIFICATION

Speech Language Pathologist License

Washington State Department of Health

May 2012 –

Present

Certificate of Clinical Competence

American Speech-Language-Hearing Association

Fall 2008 –

Present

Educational Staff Associate

Office of Superintendent of Public Instruction

Fall 2007 –

Present

PRESENTATIONS AND PUBLICATIONS

"My Experiences Working with SLPAs in the Public School Setting"

Guest lecturer in the Public Schools Speech Language Pathology and Audiology Course at the University of Washington, Seattle, WA

Winter Quarters, 2010, 2011, & 2012

Slocomb, D.* & Spencer, K.A. (2009). The effect of feedback schedule manipulation on speech priming patterns and reaction time. *Journal of Psycholinguistic Research*, 38, 43-64.

Spencer, K.A. & Slocomb, D.L.* (2007) The neural basis of ataxic dysarthria. *The Cerebellum*, 6(1), 58-65.

MEMBERSHIPS

American Speech-Language-Hearing Association

Washington Speech-Language-Hearing Association

REFERENCES

Available upon request

***Published under maiden name of Dana Lynn Slocomb**

JoAnn P. Silkes, Ph.D., CCC-SLP
Clinical Instructor
Department of Speech and Hearing Sciences
University of Washington

jsilkes@uw.edu

EDUCATION

Ph.D. Speech and Hearing Sciences, University of Washington, 2009
M.S. Communicative Disorders, University of Wisconsin, 1990
B.A. Speech and Hearing Sciences, Indiana University, 1988

RESEARCH AND TEACHING INTERESTS

Implicit learning and memory processes in aphasia
Acquired neurogenic communication disorders
Medical speech-language pathology

ACADEMIC APPOINTMENTS

June, 2012 – Present	Clinical Instructor, Department of Speech and Hearing Sciences, University of Washington
2010 – 2012	Post-doctoral Research Fellow, Departments of Rehabilitation Medicine and Speech & Hearing Sciences, University of Washington
2010	Instructor, Department of Speech and Hearing Sciences, University of Washington <i>Course taught:</i> Neuroanatomy and Neurologic Disorders Across the Lifespan
2010	Research Associate, Aphasia Laboratory, University of Washington
2008	Teaching Assistant, Department of Speech and Hearing Sciences, University of Washington <i>Course taught:</i> Models of Speech
2005	Teaching Assistant, Department of Speech and Hearing Sciences, University of Washington <i>Course taught:</i> Nature of Sound
2002-2009	Graduate Student Researcher, Spoken Language Production Laboratory, University of Washington
2000	Adjunct Professor, School of Health and Medical Sciences, Seton Hall University <i>Course taught:</i> Anatomy and Physiology of Speech
1996-1999	Adjunct Professor, Department of Language and Communication Sciences, The College of New Jersey <i>Course taught:</i> Adult Neurogenic Communication Disorders
1989-1990	Project Assistant, Trace Research and Development Center, University of Wisconsin
1987-1988	Research Assistant, Indiana Speech Training Aid Project, Indiana University
1986-1987	Research Assistant, Department of Linguistics, Indiana University

HONORS

A) National

2008 Participant, American Speech-Language-Hearing Association Lessons for Success Conference

B) University

2005-2007 Predoctoral Research Traineeship, University of Washington Department of Speech and Hearing Sciences (NIH 5T32DC000033-14)
1990 Communicative Disorders Supervisor Trainee Program, University of Wisconsin
1988 Graduation from Indiana University with High Distinction
1988 Honors Program, Indiana University
1987 Phi Beta Kappa
1984-1988 Founders Day Award for Academic Achievement

FUNDING HISTORY

A) Completed Grants and Fellowships

2011 Walter C. and Anita C. Stolov Research Fund, University of Washington Department of Rehabilitation Medicine – Awarded May, 2011 - Support to pay participants in an ERP study of masked priming effects of aphasia - \$1000
2006-2009 Ruth L. Kirschstein National Research Service Individual Fellowship Award – NIDCD 1 F31 DC008736-03 – \$99,768
2007 Student Technology Fee Grant – Co-writer of Student Technology Fee Committee Proposal awarded to the UW Speech and Hearing Sciences Student Research Lab - \$18,638
1988-1989 University of Wisconsin Alumni Research Foundation Fellowship - Tuition and stipend

B) Grants Awarded (not yet initiated)

2013 NIH/NIDCD R03 – Title: Masked Priming Treatment for Anomia. \$100,000/year for 3 years

C) Other Funding Obtained

2009 Research Symposium in Clinical Aphasiology NIDCD Student Fellowship – Support to attend the 2009 Clinical Aphasiology Conference and participate in the associated Research Symposium - \$1500
2008 American Speech-Language-Hearing Association Travel Award – Full support to attend the 2008 ASHA Lessons for Success Research Conference
2008 University of Washington Graduate School Fund for Excellence and Innovation Travel Award – Funding to present research at the 2008 Conference on Motor Speech - \$250

MENTORING EXPERIENCE

So Ra Choe – Undergraduate Honors Thesis – completed June, 2006
Kristianne Dierkes – Master's Thesis – completed August, 2011

MANUSCRIPTS IN REFEREED JOURNALS

Minkina, I., Ojemann, J., Grabowski, T., **Silkes, J.P.**, Phatak, V., and Kendall, D.L. (in press). The reorganization of proper names: Treatment of proper name retrieval deficits in an individual with temporal lobe epilepsy. *American Journal of Speech-Language Pathology*.

Silkes, J.P. & Rogers, M.A. (2012). Parameters of visually masked priming in aphasia: Evidence for altered automatic spreading activation. *Journal of Speech, Language, and Hearing Research, 55*, 1613-1625.

Silkes, J.P., Dierkes, K.A., and Kendall, D.L. (2012). Masked repetition priming effects on naming in aphasia: A phase I treatment study. *Aphasiology*.
DOI:10.1080/02687038.2012.745475

Silkes, J.P. (2012). Providing audiological services to people with aphasia: Considerations, preliminary recommendations, and a call for research. *American Journal of Audiology, 21*, 3-12.

Silkes, J.P. & Rogers, M.A. (2010). Perception of visually masked stimuli by individuals with aphasia: A methodological assessment and preliminary theoretical implications. *Aphasiology, 24*, 763-774.

Silkes, J.P., McNeil, M.R., and Drton, M. (2004). Simulation of Aphasic Naming Performance in Non-Brain-Damaged Adults. *Journal of Speech, Language, and Hearing Research, 47*(3), 610-623.

Katz, R.A., LaPointe, L.L., Markel, N.N., and **Silkes, J.P.** (2004). Coverbal Behavior and Aphasic Speakers: Revisited. *Aphasiology, 18*(12), 1221-1225.

OTHER PUBLICATIONS

Silkes, J.P. (2012, June 05). Balancing Act: Seven strategies for providing audiological services to adults with aphasia. *The ASHA Leader*.

Silkes, J.P. (2003). Cerebral vascular imaging: Methods, applications, and considerations. *Perspectives on Neurophysiology and Neurogenic Speech and Language Disorders, 13*(1), 10-17.

Silkes, J. (2000). [Review of the book *Anatomy and Physiology for Speech, Language, and Hearing*, 2nd Edition and the videotape series *Video Anatomy and Physiology Labs for Speech and Language*]. *Ear and Hearing, 21*(4), 342.

MANUSCRIPTS SUBMITTED

Kendall, D., Minkina, I., Bislick, L., Grabowski, T., Phatak, V., **Silkes, J.**, and Ojemann, J. (submitted 10/18/2012). Reorganization of language prior to anterior temporal lobe surgery: Can deficits be mitigated? *Neurorehabilitation and Neural Repair*.

PUBLISHED ABSTRACTS

Rogers, M.A., & **Silkes, J.P.** (2006). Word frequency and the phonologic similarity effect: An investigation of spoken language production mechanisms. *Stem-, Spraak-en Taalpathologie, 14*, 44.

Rogers, M.A., Off, C.A., **Silkes, J.**, Potts, A., Kenny A., & Pompon, R.H. (2006). The effect of repetition priming on picture naming accuracy and latency in individuals with aphasia. *Brain and Language*, 99, 199-200.

Cress, C.J., French, G.J., and **Tew*, J.P.** (1991). Age-related differences in interface control in normally developing children. Proceedings of the RESNA 14th Annual Conference, Washington, D.C., pp. 257-259.

Cress, C.J. and **Tew*, J.P.** (1990). Cognitive skills associated with operation of various interfaces. Proceedings of the RESNA 13th Annual Conference, Washington, D.C., pp. 251-252.

*These conference proceedings were published under my former name.

POSTERS AND PRESENTATIONS

Silkes, J.P., Minkina, I., Kendall, D., Grabowski, T., Bislick, L., del Toro, C., Phatak, V. and Ojemann, J. (November, 2012). Mitigation of proper noun retrieval impairments in temporal lobe epilepsy. Presentation at the American Speech-Language-Hearing Association annual convention, Atlanta, GA.

Minkina, I., Ojemann, J., Grabowski, T., Bislick, L., Phatak, V., **Silkes, J.**, and Kendall, D. (October, 2012). Reorganization of language prior to temporal lobe surgery: Can deficits be mitigated? Case Study of 3 Individuals with Epilepsy. Poster presented at the Academy of Aphasia, San Francisco, CA.

Silkes, J.P. (October, 2012). Models of language representation in the brain. Invited presentation at the Washington Speech, Language, Hearing Association annual convention. Tacoma, WA.

Minkina, I., Ojemann, J.G., Grabowski, T.J., **Silkes, J.P.**, and Kendall, D.L. (May, 2012). The reorganization of proper nouns: treatment of proper noun retrieval deficits in an individual with temporal lobe epilepsy. Poster presented at the Clinical Aphasiology Conference, Lake Tahoe, CA.

Silkes, J.P., Brookshire, C.E., Dierkes, K., and Kendall, D.L. (May, 2012). Masked priming treatment for anomia. Poster presented at the Clinical Aphasiology Conference, Lake Tahoe, CA.

Silkes, J.P., Kendall, D., and Osterhout, L. (April, 2012) . Assessment of automatic spreading activation in anomia through event-related potential responses to masked priming. Poster presented at the University of Washington Department of Rehabilitation Medicine Justus F. Lehmann Symposium, Seattle, WA.

Dierkes, K., Kendall, D., & **Silkes, J.P.** (November, 2011). Masked repetition priming in anomia. Poster presented at the annual convention of the American Speech Language Hearing Association, San Diego, CA.

Silkes, J.P. & Rogers, M.A. (February, 2011). Masked priming investigation of automatic spreading activation deficits in aphasia. Poster presented at the 39th Annual Meeting of the International Neuropsychological Society, Boston, MA.

- Silkes, J.P.** & Rogers, M.A. (May, 2009). Parameters of implicit priming in aphasia. Poster presented at the Clinical Aphasiology Conference, Keystone, CO.
- Silkes, J.P.** & Rogers, M.A. (March, 2008). Word frequency and phonologic similarity: Investigations into phonological processing for speech production. Poster presented at the Conference on Motor Speech, Monterey, CA.
- Silkes, J.P.** & Rogers, M.A. (November, 2006). The phonologic similarity effect & word frequency: A replication. Poster presented at the American Speech-Language-Hearing Association, Miami Beach, FL.
- Silkes, J.P.** & Rogers, M.A. (November, 2005). Word frequency and the phonologic similarity effect. Presentation at the American Speech-Language-Hearing Association, San Diego, CA.
- Silkes, J.P.** & Rogers, M.A. (October, 2005). Word frequency and the phonologic similarity effect. Poster presented at the Washington Speech-Language-Hearing Association, Blaine, WA.

CLINICAL EXPERIENCE

1996 – 2000	Senior Speech-Language Pathologist, JFK Medical Center, Edison, NJ
1993 – 1996	Staff Speech-Language Pathologist, JFK Medical Center, Edison, NJ
1991 – 1993	Staff Speech-Language Pathologist, St. Lawrence Rehabilitation Center, Lawrenceville, NJ
1991	Staff Speech-Language Pathologist, The Good Samaritan Hospital of Maryland, Inc., Baltimore, MD
1990 – 1991	Clinical Fellow, Speech-Language Pathology, The Good Samaritan Hospital of Maryland, Inc., Baltimore, MD

CERTIFICATIONS, LICENSURE, AND MEMBERSHIPS

2011 – Present	International Neuropsychological Society
2011 – Present	Society for the Neurobiology of Language
2011 – Present	Academy of Aphasia
2011 – Present	International Neuropsychological Society
2006 – Present	Licensed to practice speech-language pathology in Washington State
2004 – Present	Academy of Neurologic Communication Disorders and Sciences
2004 – Present	Washington Speech-Language-Hearing Association
1997 – 2000	New Jersey Speech-Language-Hearing Association
1991 – 2001	Licensed to practice speech-language pathology in New Jersey
1991 – 1992	Licensed to practice speech-language pathology in Maryland
1991 – Present	American Speech-Language-Hearing Association
1991 – Present	American Speech-Language-Hearing Association Certificate of Clinical Competence

SERVICE

2012	Reviewer for <i>Journal of Speech, Language, and Hearing Research</i>
2012	Reviewer for <i>Brain and Language</i>
2012	Served on the Adult Language Disorders Program Committee for the American Speech-Language-Hearing Association annual convention
2012	Served on the University of Washington Department of Speech and Hearing Sciences admissions committee
2011	Keynote speaker for University of Washington Aphasia Survivor and Caregiver Retreat
2011	Reviewer for <i>Parkinson's Disease</i>
2011	Reviewer for the American Speech-Language-Hearing Foundation Advancing Academic-Research Careers Award grant proposals
2010 – Present	University of Washington Aphasia Survivor and Caregiver Retreat Planning Committee
2010	Reviewer for University of Washington Royalty Research Foundation grants
2009 – Present	Reviewer for <i>Aphasiology</i>
2005 – 2008	Member, Student Research Lab Committee, University of Washington Department of Speech and Hearing Sciences
2004 – 2007	Co-coordinator of a research tool learning series for doctoral students, University of Washington, Department of Speech and Hearing Sciences

LAURA SNOW, Ph.D., CCC-SLP
Speech/Language Pathologist

FORMAL EDUCATION and CERTIFICATIONS

- American Speech, Language, and Hearing Association (ASHA) member since 2004
- University of Washington, Seattle, WA
 - 1999-2007, Ph.D. in Speech and Hearing Sciences (SPHSC)
 - 1996-1998, Doctoral program in Linguistics (transferred to SPHSC to complete Ph.D.)
 - 1996, M.A. in Linguistics
- The Bell School, Cambridge, England; TEFL Certificate in 1992
- Northwestern University, Evanston, IL
 - 1987-1991, B.A. in World History/Romance Languages

WORK HISTORY

6/07 → to now

- Part-time member of the clinical faculty at the University of Washington's Center on Human Development and Disability (CHDD). I am involved in clinical teaching for the graduate program in Speech and Hearing Sciences and teach a graduate course on literacy development and disorders every summer.
- Part-time private practice in speech/language pathology. I specialize in language, literacy, and social communication disorders in children.

8/06 → 6/07 *Seattle Public Schools:* School-based speech-language pathologist.

8/05 → 6/06 *SERRC: Alaska's Educational Resource Center:* Worked as an itinerant Speech/Language Pathologist, contracted to travel to rural/remote villages throughout the state of Alaska to provide evaluations, therapy, consultations, and staff training.

8/03-6/04 *Seattle Public Schools:* School-based speech-language pathologist.

1/02-6/03 *LEND Fellowship at the UW's CHDD:* I trained in the process of interdisciplinary assessment, and supervised masters' level SLP students.

1/99-12/01 *University of Washington, SPHSC Department:* As part of my doctoral program funding, I taught undergraduate courses in Phonetics and Language Science, and served as a teaching assistant in courses on Social Aspects of Communication, Models of Speech Processing, and Diagnosis of Speech and Language Disorders.

9/95-9/98 *University of Washington, Linguistics Department:* To fund my masters' and doctoral programs, I taught undergraduate and graduate courses in English Syntax and Survey of Theoretical Linguistics, and served as a teaching assistant in courses on language development and cognitive development.

Summers 94/95 *American School of International Training, Seattle:* I taught Italian and ESL courses to adults and adolescents.

9/93-9/96 *Washington Academy of Languages, Seattle:* I taught ESL in small groups and one-on-one for special purposes (i.e., accent reduction, test preparation, college preparation, business English, academic English, etc.)

School year 1992-93 *International Language Institute, Cairo, Egypt:* I taught ESL full-time to adolescents and adults at beginning to advanced levels.

PERSONAL EDUCATION

I love to learn new skills and to interact with people from a variety of cultural and linguistic backgrounds. My hobbies include studying foreign languages (8 and counting!), reading about world cultures and history, traveling (over 50 countries so far!), yoga, mountaineering, movies, cooking, piano, arranging bird furniture, and collecting children's books and toys.

KRISTIE A. SPENCER, Ph.D.
Curriculum Vitae

Speech and Hearing Sciences Department
University of Washington
1417 NE. 42nd Street
Seattle, WA 98105

Phone: 206.543.7980
FAX: 206.543.1093
Email: kas@u.washington.edu

EDUCATION

University of Pittsburgh (1986-1990)
B.A. in Speech and Hearing Sciences

Pittsburgh, PA

University of Pittsburgh (1990-1992)
M.S., Speech-Language Pathology

Pittsburgh, PA

University of Washington (1999-2003)
Ph.D., Speech-Language Pathology

Seattle, WA

Dissertation Title: *Investigations of Speech Motor Programming in Ataxic and Hypokinetic Dysarthria*

EMPLOYMENT

Western Psychiatric Institute & Clinic
Pittsburgh, PA

1990-1990

University of Pittsburgh
Pittsburgh, PA

Research Assistant

1990 -1992

VA Pittsburgh Healthcare System
Pittsburgh, PA

Research Speech Pathologist

1992 -1999

VA Pittsburgh Healthcare System
Pittsburgh, PA

Clinical Instructor

1995 -1999

University of Washington Clinic
Seattle, WA

Clinical Instructor

1999 -2000

University of Washington
Seattle, WA

Research Trainee

2000 -2003

University of Washington
Seattle, WA

Assistant Professor

2003 -2009

University of Washington
present

Associate Professor

2009 –

Seattle, WA

PROFESSIONAL OFFICES / AWARDS / SERVICE

Professional Memberships

American Speech-Language-Hearing Association (1990 – present)

Academy of Neurologic Communication Disorders and Sciences (1993 – present)

National Aphasia Association (1994 – present)

Neurophysiology and Neurogenic Speech and Language Disorders (1994 – present)
Special Interest Division

Washington Speech-Language-Hearing Association (1999 – present)

Movement Disorders Society (2006 – present)

Editorial Service

Ad Hoc Reviewer:

American Journal of Speech-Language Pathology
Journal of Speech-Language-Hearing Research
The Cerebellum
International Journal of Language & Communication Disorders
Brain and Language
Ear and Hearing
Developmental Science
Journal of Communication Disorders
Journal of Medical Speech-Language Pathology
Canadian Journal of Speech-Language Pathology and Audiology

Reviewer:

American Journal of Speech-Language Pathology (2005 -2007)

Grant Reviewer:

Neurological Foundation of New Zealand

Awards and Honors

Research Assistantship, University of Pittsburgh (1990 -1992)

Full Traineeship Award, University of Pittsburgh (1991)

Department of Veterans Affairs Outstanding Performance Award (1995)

National Institutes of Health Traineeship, University of Washington (2000 -2003)

ADVANCE Professor; Transitional Support Program, University of Washington; Award of \$14,581 (2005)

Advancing Academic-Research Careers Award from the American Speech-Language-Hearing Association; \$5000 (2005)

Student Mentored Awards

Laura Hardy: "Students Preparing for Academic and Research Careers" \$1500 Award; August, 2004.

Kelly Morgan: "Students Preparing for Academic and Research Careers" \$1500 Award; August, 2007.

Erika Hutchison: "Plural Publishing Research Award" (one master's thesis prize awarded nationally; 700+ submissions), \$3000; April 2012.

State / National Service

National Writing Committee for the development of practice guidelines in the management of dysarthria (1999 – present)

Served as faculty mentor for the *5th Annual Conference on Research in Communication Sciences and Disorders: Lessons for Success: Developing the Emerging Scientist*. Rockville, MD. (March 29-31, 2007)

Reviewer for ASHA's *Students Preparing for Academic and Research Careers* Award, June 2007

Motor Speech Disorders program committee for the *American Speech-Language-Hearing Association Convention*; Boston, MA (November, 2007)

Member of the Research Committee; *American Speech-Language-Hearing Association, Special Interest Division 2* (Neurophysiology and Neurogenics) (2005 - 2007 term)

Motor Speech Disorders program committee for the *Conference on Motor Speech*; Monterey, CA (March, 2008)

Member of the Research and Scientific Affairs Committee; *American Speech-Language-Hearing Association* (2007 - 2008 term)

Member of the Honors Committee; *Academy of Neurologic Communication Sciences and Disorders* (2007 – present)

Member of the Program Committee; *Academy of Neurologic Communication Sciences and Disorders* (2008 – present)

Reviewer for ASHA's New Century Doctoral Scholarship competition, August 2011

Elected to the Executive Board of the *Academy of Communication Disorders and Sciences* (Member-At-Large) (November 2011 – November 2013)

Community Service

Invited speaker at a support group for people with young-onset Parkinson's disease; Magnolia, WA (January, 2004)

Invited speaker at the VA Puget Sound ("Understanding the underlying processes of Parkinson's disease"); Speech-Language Pathology Department (December, 2004)

Invited speaker at a support group for Parkinson's disease; Edmonds, WA (March, 2005)

Invited speaker at a support group for Parkinson's disease; Lake Forest Park, WA (May, 2005)

Invited speaker for the Washington State Regional Ataxia Foundation; Federal Way Regional Library (June, 2006)

Invited speaker for the Booth Gardner Parkinson's Care Center Quarterly Educational Meeting, (August, 2006)

Invited speaker at a support group for Parkinson's disease; Bellevue, WA (May, 2007)

Invited speaker at a support group for Parkinson's disease; West Seattle, WA (September, 2007)

Invited speaker for the Washington State Regional Ataxia Foundation; Madison House Retirement Community Center; Kirkland, WA (May, 2008)

Invited speaker for the annual meeting of the National Ataxia Foundation; Seattle Doubletree Hotel (March, 2009)

Invited speaker for the Washington State Regional Ataxia Foundation; Bothell Community Center (April, 2012)

UW COMMITTEES / DUTIES / SERVICE

Departmental Committees

Co-Chair of SPHSC colloquium committee (September, 2003 – September, 2004)

Scholarship committee; Phi Eta Sigma University Honor Society (October 2004; October, 2005)

Chair, Colloquium committee (September, 2004 – September, 2006)

Graduate selection committee (September, 2004 – October, 2006)

Grand Rounds committee (September, 2004 – September, 2007)

Research liaison to website committee (January, 2005 – January, 2008)

Search committee for tenure-track position (October, 2007 – April, 2008)

Co-coordinator for coverage of SPHSC 546 due to faculty shortage (March, 2008 – July, 2008)

Medical Speech-Language Pathology program committee (January, 2006 – present)

Chair, Graduate Speech-Language Pathology admissions committee (Core and Medical SLP programs) (November, 2006 – present)

Direction of Independent Studies (SPHSC 499 and 600)

Winter 2004	Laura Hardy	Masters	1 credit
Spring 2004	Laura Hardy	Masters	2 credits
Autumn 2004	Kalli Bollenbacher	Undergraduate	1 credit
Winter 2005	Kalli Bollenbacher	Undergraduate	2 credits
	Jessica Connerton	Undergraduate	2 credits
	Eun-Hye Choe	Undergraduate	1 credit
Spring 2005	Kalli Bollenbacher	Undergraduate	2 credits
Spring 2006	Adam Politis	Masters	2 credits
Autumn 2006	Erina Kainuma	Undergraduate	1 credit
	Seth Hayden	Undergraduate	1 credit
Winter 2007	Erina Kainuma	Undergraduate	1 credit
	Rebecca Lewis	Undergraduate	2 credits

	Anya Koroleva	Undergraduate	1 credit
Spring 2007	Kevin Crosby	Undergraduate	2 credits
Summer 2007	Michelle Yee	Doctoral	3 credits
	Andrea Kettler	Masters	2 credits
Autumn 2007	Kelsey Briggs	Undergraduate	1 credit
Summer 2009	Kaytlin Hopkins	Undergraduate	1 credit
	Seth Hayden	Masters	3 credits
Autumn 2010	Elizabeth Golhofer	Undergraduate	1 credit
Winter 2010	Phillip Weir	Doctoral	1 credit
Spring 2010	Phillip Weir	Doctoral	1 credit
Summer 2010	Tiffany Bachtel	Undergraduate	1 credit
Autumn 2010	Elizabeth Selleck	Undergraduate	1 credit
	Julie Scanlon	Undergraduate	1 credit
Spring 2011	Nina Simons	Undergraduate	1 credit
	Phillip Weir	Doctoral	2 credits
Summer 2011	Nina Simons	Undergraduate	1 credit
	Phillip Weir	Doctoral	2 credits
Autumn 2011	Cara Evans	Undergraduate	1 credit
	Ashley France	Post-baccalaureate	1 credit
	Liane Thomas	Undergraduate	1 credit
Winter 2012	Sara Savaglio	Post-baccalaureate	1 credit
	Phillip Weir	Doctoral	4 credits
Spring 2012	Wai Ying Cho	Undergraduate	1 credit
	Adina Sounthala	Undergraduate	1 credit
	Phillip Weir	Doctoral	2 credits
Summer 2012	Kathy Nagle	Doctoral	1 credit
	Lisa Widjaja	Masters	1 credit
Autumn 2012	Isabel Bakhshi	Undergraduate	1 credit
	Susannah Balestracci	Post-baccalaureate	1 credit
	Chloe Mitchell	Post-baccalaureate	1 credit
Winter 2013	Sarah Graham	Post-baccalaureate	1 credit
	Heidi Skiles	Post-baccalaureate	1 credit

Direction of Student Theses and Honors Projects

Undergraduate Honors Project

Rebecca Lewis Summer 2007 – Spring 2008

M.S. Thesis, Committee Chair

Erin Wiley Spring 2005 – Summer 2006
 Thesis title: *The effect of interstimulus interval manipulations on response*

Emily Johnson Spring 2005 – Summer 2006
 Thesis title: *An investigation of speech motor programming and verbal working memory in individuals with cerebellar disease*

Dana Slocomb Summer 2006 – Summer 2007

	Thesis title: <i>The effect of feedback schedule manipulation on speech priming patterns and reaction time</i>
Emily Blond	Spring 2007 – Summer 2008 Thesis title: <i>The effect of speaking context on perceptual judgments of Parkinsonian speech</i>
Kelly Morgan	Spring 2007 – Summer 2008 Thesis title: <i>Dopaminergic medication effects on intelligibility, naturalness, and voice quality in individuals with idiopathic Parkinson's disease</i>
Holly Kavalier	Spring 2007 – Summer 2008 Thesis title: <i>The effects of repetition priming and stimulus dosage on picture naming in individuals with aphasia</i>
Audra McAllen	Summer 2008 – Summer 2009 Thesis title: <i>Speech and manual reaction time as a function of dopaminergic medication in Parkinson's disease</i>
Janelle Sanchez	Summer 2008 – Autumn 2009 Thesis title: <i>The effect of Parkinson's disease on language: Monologue production on versus off dopaminergic medication</i>
Kristin France	Summer 2009 – Spring 2010 Thesis title: <i>Reliability and validity of a verbal working memory measure for individuals with Parkinson's disease</i>
Elizabeth Horwitz	Summer 2010 – Summer 2011 Thesis title: <i>Daily executive function challenges in individuals with Parkinson's disease</i>
Erika Hutchison	Spring 2011 – Summer 2012 Thesis title: <i>Influence of motor symptom presentation on cognitive-linguistic profile in individuals with Parkinson's disease</i>
Caitlin Sears	Spring 2012 – Thesis title: <i>Evaluation of Attention Process Training III in individuals with traumatic brain injury</i>

M.S. Thesis, Committee Member

Erin Gibson,	Autumn 2003 – Autumn 2004
Christina Nicolizzi,	Winter 2006 – Summer 2006
Ann Kenny	Winter 2006 – Summer 2006
Abigail Potts	Winter 2006 – Summer 2006
Eboli Giannini	Winter 2007 – Summer 2007
Yumi Sumida	Spring 2007 – Summer 2007
Mara Kapsner	Autumn 2007 – Summer 2008
Andrea Kettler	Autumn 2007 – Summer 2008
Derek Wright	Autumn 2007 – Summer 2008

Tiffany Ackermann	Autumn 2009 – Summer 2010
Brianne Bowker	Autumn 2009 – Summer 2010
Megan Oelke	Autumn 2009 – Spring 2010
Kristianne Dierkes	Spring 2010 – Summer 2011
Kristin Lamvik	Spring 2010 – Summer 2011
Christina Runne	Autumn 2011 – Autumn 2012
Elizabeth Seagrave	Autumn 2011 – Summer 2012
Lauril Sachet	Autumn 2012 –

Ph.D. Thesis, Committee Chair

Catherine Off	2007 – 2008 (Acting Chair)
Jennell Vick	2007 – 2008 (Acting Chair)
JoAnn Silkes	2007 – 2009 (Acting Chair)
Phillip Weir	2009 –

Ph.D. Thesis, Committee Member

Susan McLaughlin	2004 – 2009
Catherine Off	2004 – 2007
JoAnn Silkes	2004 – 2007
Lakshmi Venkatesh	2005 – 2007
Jennell Vick	2007
Michelle Yee	2007 – 2008
Alexis Bosseler	2007 – 2010
Anna Sosa	2008 – 2009
Rebecca Pompon	2009 –
Lauren Bisleck	2010 –
Irene Minkina	2011 –

Graduate School Representative, Ph.D. Thesis

Alison Leary, Psychology	2007
Julie Postma, Social Work	2004 – 2007
Brendan Reeves, Psychology	2005
Robin Bonifas, Social Work	2004

Direction of Teaching Practicum (Doctoral Students)

Carolyn Baylor	SPHSC 305	Autumn 2004
Cathy Off	SPHSC 305	Autumn 2005

Participation in Teaching Development

UW Faculty Fellows Program. September 12-19, 2003

Provost Workshop on Teaching and Learning: *Techniques for Effective Lecturing*. September, 2004

Quarterly Forum on Teaching and Learning: *Including Disability as Diversity in our Teaching*. January, 2005

ADVANCE sponsored seminar: *Multiple Mentoring Methods* (by Howard Adams, Ph.D.). February, 2005

Quarterly Forum on Teaching and Learning: *Engaging Students through Active and Cooperative Learning Activities* (by Karl Smith, Ph.D.). April, 2005

Provost Workshop on Teaching and Learning: *Leading Effective Discussions*. September, 2005

Teaching Assessment

Quarter	Course Title	Course No.	Course Eval. (adj median)	
Spring 2001	Motor Speech Disorders	SPHSC 531	4.9	(5.1)
Winter 2004	Cognitive Disorders	SPHSC 538	4.5	(4.4)
Spring 2004	Motor Speech Disorders	SPHSC 531	4.8	(5.0)
Autumn 2004	Speech & Language Dis.	SPHSC 305	4.8	(4.8)
Winter 2005	Cognitive Disorders	SPHSC 538	4.9	(4.8)
Spring 2005	Motor Speech Disorders	SPHSC 531	5.0	(5.1)
Winter 2006	Cognitive Disorders	SPHSC 538	4.8	(4.9)
Spring 2006	Motor Speech Disorders	SPHSC 531	5.0	(5.1)
Autumn 2006	Speech & Language Dis.	SPHSC 305	4.8	(4.9)
Winter 2007	Cognitive Disorders	SPHSC 538	4.9	(5.2)
Autumn 2007	Adv. Motor Speech Dis.	SPHSC 548	4.7	(5.0)
Winter 2008	Adv. Cognitive Disorders	SPHSC 547	4.6	(4.9)
Spring 2008	Adult Neurological Disorders	SPHSC 532	4.8	(5.1)
Winter 2009	Neuro Cog-Lang Disorders	SPHSC 532	4.5	(4.7)
Spring 2009	Motor Speech Disorders	SPHSC 531	4.2	(4.5)
Summer 2009	Adv. Motor Speech Dis.	SPHSC 548	4.4	(4.2)
Winter 2010	Neuro Cog-Lang Disorders	SPHSC 532	4.8	(4.8)
Spring 2010	Motor Speech Disorder	SPHSC 531	4.7	(4.8)
	Adv. Motor Speech Dis.	SPHSC 548	3.4	(3.6)
Summer 2010	Neuroanatomy & Neuro Dis	SPHSC 449	4.3	(4.2)
Spring 2010	Motor Speech Disorders	SPHSC 531	4.8	(5.0)
	TBI Seminar	SPHSC 548	4.0	(4.0)
Spring 2011	Motor Speech Disorders	SPHSC 531	4.8	(5.0)
	TBI Seminar	SPHSC 548	4.0	(4.0)
Winter 2012	Neuro Cog-Lang Disorders	SPHSC 532	4.8	(5.1)
Spring 2012	Motor Speech Disorders	SPHSC 531	4.9	(5.2)

RESEARCH GRANTS/CONTRACTS

Agency: University of Washington, Royalty Research Fund
Title: Feedback schedules and speech motor learning in Parkinson's disease
Role: Principal Investigator
Dates: March 30, 2012 – Feb 15, 2013 (awarded, January 2012)
Total award: \$27,868

Agency: NIH, National Institute on Deafness and Other Communication Disorders, R03
Title: Response maintenance and switching in Parkinson's disease
Role: Principal Investigator
Dates: July 5, 2006 – June 30, 2010
Total award: \$233,750

Agency: American Speech-Language-Hearing Foundation, New Investigator Grant
Title: Disruptions to response maintenance and switching in Parkinson's disease
Role: Principal Investigator
Dates: January 1, 2006 – December 31, 2006
Total award: \$5,000

Agency: University of Washington, Royalty Research Fund
Title: Speech motor programming in adults with cerebellar disease
Role: Principal Investigator
Dates: June 16, 2006 – June 15, 2007 (awarded June 2005)
Total award: \$33,741

TALKS / PAPERS / PRESENTATIONS

 Refereed Presentations

Bislick, L.P., Weir, P.C., & **Spencer, K.A.** (2012, May). Effects of feedback frequency on motor learning in individuals with apraxia of speech and healthy adults. *Clinical Aphasiology Conference*, Lake Tahoe, California.

Weir, P.C., **Spencer, K.A.**, Daliri, A., & Bierer, S. (2012, February). Investigation of feedback schedules on speech motor learning. *International Conference on Motor Speech*, Santa Rosa, California.

Bislick, L.P., Weir, P.C., & **Spencer, K.A.** (2012, February). Investigations of feedback schedules on speech motor learning in individuals with apraxia of speech. *International Conference on Motor Speech*, Santa Rosa, California.

Horwitz, E.S. & **Spencer, K.A.** (2011, November). Daily executive function challenges in individuals with Parkinson's disease. Poster presentation accepted for the annual meeting of the *American Speech-Language-Hearing Association*, San Diego, California.

Weir, P.C., **Spencer, K.A.**, & Daliri, A. (2011, November). Investigations of feedback schedules on speech motor learning. Platform presentation accepted for the annual meeting of the *American Speech-Language-Hearing Association*, San Diego, California

Spencer, K.A. (2010, November). Speech motor programming deficits and the dysarthria of Parkinson's disease. Presentation for the annual meeting of the *American Speech-Language-Hearing Association*, Philadelphia, Pennsylvania.

France, K.N., **Spencer, K.A.**, Shulein, O.M. (2010, November). Reliability and validity of a verbal working memory measure for individuals with Parkinson's Disease. Poster presented at the meeting of the *American Speech-Language-Hearing Association*, Philadelphia, Pennsylvania.

Weir, P.C., **Spencer, K.A.**, & Daliri, A. (2010, October). Applying the principles of motor learning to speech production. Poster presented at the *Washington Speech-Language-Hearing Association Conference*, Spokane, Washington.

Spencer, K.A. (2010, March). Response maintenance and switching deficits in Parkinson's disease. Poster presented at the *International Conference on Motor Speech*; Savannah, Georgia.

McAllen, A. & **Spencer, K.A.** (2010, March). Speech and manual reaction time as a function of dopaminergic medication in Parkinson's disease. Poster presented at the *International Conference on Motor Speech*; Savannah, Georgia.

Spencer, K.A. (2009, November). Response preparation deficits in Parkinson's disease. Poster presented at the meeting of the *American Speech-Language-Hearing Association*; New Orleans, Louisiana.

Off, C.A., Kavalier, H., Rogers, M., & **Spencer, K.A.** (2008, November). Anomia and stimulus dosage: Investigating the influence of repetition during picture naming. Presentation at the meeting of the *American Speech-Language-Hearing Association*; Chicago, Illinois.

Spencer, K.A. (2008, November). Response maintenance and switching in Parkinson's disease. Poster presentation at the meeting of the *American Speech-Language-Hearing Association*; Chicago, Illinois.

Morgan, K. & **Spencer, K.A.** (2008, November). Dopaminergic medication effects on intelligibility, naturalness, and voice quality in individuals with Parkinson's Disease. Poster presentation accepted for the meeting of the *American Speech-Language-Hearing Association*; Chicago, Illinois.

Blond, E. & **Spencer, K.A.** (2008, November). Effects of speaking context on perceptual judgments of Parkinsonian speech. Poster presentation accepted for the meeting of the *American Speech-Language-Hearing Association*; Chicago, Illinois.

Off, C.A., Kavalier, H., Rogers, M., & **Spencer, K.A.** (2008, May). Repetition priming and anomia: An investigation of stimulus dosage. Poster presented at the *Clinical Aphasiology Conference*; Jackson Hole, Wyoming.

Spencer, K.A. (2008, March). Effects of dopaminergic medication on response preparation in Parkinson's disease. Poster presented at the *Conference on Motor Speech*; Monterey, California.

Reilly, K.J. & **Spencer, K.A.** (2008, March). Length and complexity effects on speech sequencing in healthy and dysarthric speakers. Poster presented at the *Conference on Motor Speech*; Monterey, California.

Spencer, K.A. (2007, November). Effects of dopaminergic medication on response preparation in Parkinson's disease. Poster presented at the meeting of the *American Speech-Language-Hearing Association*; Boston, Massachusetts.

Spencer, K.A., Slocomb, D., & Wiley, E. (2007, November). Priming outcomes are dependent on interstimulus interval and feedback schedule. Poster presented at the meeting of the *American Speech-Language-Hearing Association*; Boston, Massachusetts.

Spencer, K.A. (2007, October). Practice Guidelines for Neurological Disorders. Seminar presented at the *Washington Speech-Language-Hearing Association Conference*; Redmond, Washington.

Spencer, K.A. & Johnson, E. (2007, February). Motor programming and working memory deficits in cerebellar disease. Poster presented at the Annual Meeting of the *International Neuropsychological Society*; Portland, Oregon.

Spencer, K.A. (2006, November). Effects of dopaminergic medication on response preparation in Parkinson's disease. Poster presented at the meeting of the *American Speech-Language-Hearing Association*; Miami, Florida.

Johnson, E. & **Spencer, K.A.** (2006, October). Motor programming and ataxic dysarthria. Poster presented at the joint *Washington and Oregon Speech-Language-Hearing Association Conference*; Vancouver, Washington.

Spencer, K.A. (2006, October). Differential diagnosis of the dysarthrias. Seminar presented at the joint *Washington and Oregon Speech-Language-Hearing Association Conference*; Vancouver, Washington.

Spencer, K.A. (2006, March). Response preparation and medication withdrawal in Parkinson's disease: Preliminary findings. Poster presented at the *Conference on Motor Speech*; Austin, Texas.

Spencer, K.A. (2005, November). Response preparation and medication withdrawal in Parkinson's disease: Preliminary findings. Poster displayed at the convention of the *American Speech-Language-Hearing Association*; San Diego, California (author on maternity leave).

Robey, R., Coppens, P., Greenwald, M., Patterson, J., Ross, K., Slansky, B., & **Spencer, K.** (2005, November). Teaching evidence-based practice: What works. Poster presented at the *American Speech-Language-Hearing Association*; San Diego, California.

Spencer, K.A. (2005, October). Cross-disciplinary research on Parkinson's disease: Potential clinical implications. Paper presented at the *Washington State Speech-Language-Hearing Association*; Blaine, WA.

Spencer, K.A. (2005, October). Assessment and management of executive function deficits from TBI. Paper presented at the *Washington State Speech-Language-Hearing Association*; Blaine, WA.

Spencer, K.A. (2004, November). Response priming disruption in Parkinson's disease: Preliminary data. Poster presented at the meeting of the *American Speech-Language-Hearing Association*; Philadelphia, Pennsylvania.

Spencer, K.A. and Rogers, M.A. (2004, March). Disruptions of advance speech programming in ataxic dysarthria. Paper presented at the Conference on Motor Speech, Albuquerque, New Mexico.

Spencer, K.A. and Rogers, M.A. (2004, March). Utterance maintenance and transitioning deficits in hypokinetic dysarthria. Paper presented at the Conference on Motor Speech, Albuquerque, New Mexico.

Spencer, K.A. and Rogers, M.A. (2003, November). An examination of utterance programming in ataxic and hypokinetic dysarthria. Poster presented at the meeting of the *American Speech-Language-Hearing Association*; Chicago, Illinois.

Spencer, K.A. and Rogers, M.A. (2002, November). Determining motor programming contributions to ataxic and hypokinetic dysarthria: Preliminary findings. Poster presented at the meeting of the *American Speech-Language-Hearing Association*; Atlanta, Georgia.

Spencer, K.A., Yorkston, K.M., Duffy, J.R., Beukelman, D.R., Golper, L.A., Miller, R., Strand, E.A., and Sullivan, M. (2002, March). Evidence-based practice guidelines for dysarthria: Behavioral management of respiratory-phonatory impairment. Poster presented at the *Conference on Motor Speech*; Williamsburg, Virginia.

Spencer, K.A. (2001, November). Management of velopharyngeal and respiratory-phonatory impairment. Portion of an extended seminar by the Dysarthria Practice Guidelines Committee, presented at the meeting of the *American Speech-Language-Hearing Association*; New Orleans, Louisiana.

Spencer, K.A. and Rogers, M.A. (2000, November). Pre-motor and motor contributions to producing phonetic sequences. Poster presented at the *American Speech-Language-Hearing Association*; Washington D.C.

Wambaugh, J.L., Linebaugh, C.W., Doyle, P.J., Martinez, A.L., Kalinyak-Fliszar, M., and **Spencer, K.A.** (2000, June). Effects of two cueing treatments on lexical retrieval in aphasic speakers with different levels of deficit. Paper presented at the *Clinical Aphasiology Conference*, Kona, Hawaii.

Yorkston, K., Duffy, J., Golper, L.A., Strand, E., Sullivan, M., Miller, R., Beukelman, D., and **Spencer, K.** (2000, February). Development of practice guidelines in dysarthria. Poster presented at the *Conference on Motor Speech*; San Antonio, Texas.

Wambaugh, J.L., Linebaugh, C.W., Doyle, P.J., **Spencer, K.A.**, and Martinez, A.L. (1999, November). Effects of semantic priming-cueing treatment on lexical retrieval in aphasia. Paper presented at the meeting of the *American Speech-Language-Hearing Association*; San Francisco, California.

Lustiig, A., McNeil, M.R., Spencer, K.A., and Doyle, P.J. (1999, November). Ecologically valid versus standardized measurements: Prediction of discourse production measures from standardized aphasia tests. Poster presented at the *American Speech-Language-Hearing Association*; San Francisco, California.

Spencer, K.A., Doyle, P.J., McNeil, M.R., Wambaugh, J.L., Carroll, B., and Park, G. (1999, June). Examining the facilitative effects of rhyme in a patient with output lexicon damage. Paper presented at the *Clinical Aphasiology Conference*; Key West, Florida.

Doyle, P.J., **Spencer, K.A.**, McNeil, M.R., Wambaugh, J.L., Carroll, B., and Park, G. (1998, November). Accessing the phonological output lexicon: Generalized responding in a patient with lexical form dysnomia. Poster presented at the *Academy of Aphasia*; Santa Fe, New Mexico.

Doyle, P.J., Goda, A.J., and **Spencer, K.A.** (1995, June). Communicative informativeness of aphasia adults' structured and conversational discourse. Paper presented at the *Clinical Aphasiology Conference*; Sunriver, Oregon.

Spencer, K.A., Tompkins, C.A., Schulz, R., and Rau, M.T. (1993, May and June). The psychosocial outcomes of stroke: A longitudinal study of depression risk. Paper presented at the *Clinical Aphasiology Conference*, Sedona, Arizona.

Tompkins, C.A., **Spencer, K.A.**, Boada, R. (1992, June). Contextual influences on judgments of emotionally ambiguous stimuli by brain-damaged and normally aging adults. Paper presented at the *Clinical Aphasiology Conference*, Durango, Colorado.

Ranier, S., Tompkins, C.A., Boada, R., and **Spencer, K.A.** (1991, November). Connected speech in aging: Some cautions when attributing abnormality. Poster presented at the meeting of the *American Speech-Language-Hearing Association*, Atlanta, Georgia.

Invited Presentations

Spencer, K.A. (2011, April). Cognitive-communicative disorders from right brain stroke: Nature, evaluation and management. Seminar presented at the UW Medicine/Harborview Medical Center *Annual Stroke Symposium*, Seattle, WA.

Spencer, K.A. (2011, April). Motor Speech Disorders: Nature, evaluation and management. Seminar presented at the UW Medicine/Harborview Medical Center *Annual Stroke Symposium*, Seattle, WA.

Kiran, S., **Spencer, K.A.**, et al. (2009, November). Turning the tenure corner: Women in academia. Seminar presentation accepted for the meeting of the *American Speech-Language-Hearing Association*, Chicago, Illinois.

Rousseau, B., **Spencer, K.A.**, Branskin, R., Sivasankar, P. (2008, November). Success in academia: Perspectives from Junior Faculty. Seminar presentation accepted for the meeting of the *American Speech-Language-Hearing Association*, Chicago, Illinois.

Spencer, K.A. (2008, June). Parkinson's disease: Preparing to speak. Speech and Hearing Sciences, Department Colloquia, University of Washington.

Spencer, K.A. (2007, November). Response maintenance and switching in individuals with Parkinson's disease. Platform presentation at the meeting of the *Academy of Neurologic Communication Disorders and Sciences*; Boston, Massachusetts.

Plante, E., **Spencer, K.A.**, Hustad, K. et al. (2007, November). The write stuff: Lessons for success in research funding. Seminar presented at the meeting of the *American Speech Language Hearing Association*; Boston, Massachusetts.

Spencer, K.A., Plante, E., Conture, E. (2007, March). Abstract and specific aims. *5th Annual Conference on Research in Communication Sciences and Disorders: Lessons for Success*. Rockville, Maryland.

Invited panel discussant for "The Good, the Bad, and the Ugly academic research forum". Presented at the meeting of the *American Speech Language Hearing Association* (2003), Chicago, Illinois.

Yorkston, K.M. and **Spencer, K.A.** (2002, October). Evidence-based practice for management of dysarthria. Paper presented at the meeting of the *Washington Speech-Language-Hearing Association*; Seattle, Washington.

Spencer, K.A. (1998, February). The assessment of poststroke depression: A critical review. Paper presented at the *Communication Science and Disorders Colloquium*; University of Pittsburgh, Pittsburgh, Pennsylvania.

Spencer, K.A., Schramke, C., and Sprenkel, D. (1996, April through May). *Dementia Task Force*. Hospital wide, discipline-specific training on interacting with patients with dementia (nine presentations); VA Medical Center, Pittsburgh, Pennsylvania.

Spencer, K.A. (1995, December). Addressing severe communication impairments through advanced computer technology. Paper presented at the *Grand Rounds*; VA Medical Center, Pittsburgh, Pennsylvania.

Spencer, K.A., Tompkins, C.A., Schulz, R., and Rau, M.T. (1993, May and June). The psychosocial outcomes of stroke: A longitudinal study of depression risk. Paper presented at the *Grand Rounds*, VA Medical Center, Pittsburgh, Pennsylvania.

Invited Guest Lectures

“Neurogenic motor speech disorders” (2008, August). Lecture to undergraduate students; *Introduction to Human Communication Disorders* course. University of Washington.

“Neuroanatomical basis of the dysarthrias” (2008, July). Lecture to graduate/undergraduate students; *Neuroanatomy and Neurologic Disorders across the Lifespan*. University of Washington.

“Connectionist models of aphasia” (2008, April). Lecture to graduate students, *Advanced Neurological Language Disorders* course, University of Washington.

“Pathology of the cerebellum and basal ganglia” (2007, July). Lecture to graduate/undergraduate students; *Neuroanatomy and Neurologic Disorders across the Lifespan*. University of Washington.

“Sensorimotor speech disorders: Nature, assessment and treatment” (2007, May). *Assessment and Treatment of Adult Communication Disorders*, two lectures to graduate students, University of Washington.

“Evidence Based Practice: Developing practice guidelines for the management of dysarthria and cognitive-communicative deficits” (2005, July). *Research Related to Evidence Based Practice* doctoral seminar; University of Washington.

“Clinical Practice Guidelines: An example from the ANCCDS Practice Guidelines for the Management of Dysarthria” (2004, June). *Research Designs and Strategies for Evidence-Based Practice* doctoral seminar; University of Washington.

“Neuroanatomy: The telencephalon and diencephalon” (2002, June). Three lectures to undergraduate/graduate students; *Neuroanatomy and Neurologic Disorders Across the Lifespan* course. University of Washington.

“Nature of right hemisphere cognitive-communicative disorders” (2001, November). Lectures to undergraduate students; *Speech and Language Disorders* course. University of Washington.

“Etiology and nature of dysarthria” (2001, October). Lectures to undergraduate students; *Speech and Language Disorders* course. University of Washington.

“Parkinson’s disease and Huntington’s disease” (2001, August). Lecture to undergraduate students; *Neuroanatomy and Neurologic Disorders Across the Lifespan* course. University of Washington.

“Right hemisphere communication disorders: Nature, evaluation and treatment” (2000, 2001, February). Lectures to graduate students in speech and hearing sciences; *Neurogenic Language Disorders* course, University of Washington.

“Neurogenic speech and language disorders” (1996, April). Lecture to occupational therapy students; *Neuromuscular Disorders* course, University of Pittsburgh.

Non-Peer Reviewed Publications and Abstracts

Invited:

Spencer, K.A., Sanchez, J., McAllen, A., & Weir, P. (2010). Speech and cognitive-linguistic function in Parkinson's disease. Perspectives on Neurophysiology and Neurogenic Speech and Language Disorders (American Speech-Language-Hearing Association, Special Interest Division 2), 20(2), 31-38.

Spencer, K.A. (2006). Evidence-based practice: Treatment of individuals with dysarthria. Perspectives on Neurophysiology and Neurogenic Speech and Language Disorders (American Speech-Language-Hearing Association, Special Interest Division 2), 16(4), 13-19.

Spencer, K.A. and Yorkston, K.M. (2002). Evidence for the treatment of respiratory/phonatory dysfunction from dysarthria. Perspectives on Neurophysiology and Neurogenic Speech and Language Disorders (American Speech-Language-Hearing Association, Special Interest Division 2), 12(4), 4-16.

Other:

Spencer, K.A., Yorkston, K.M., Duffy, J.R., Beukelman, D.R., Golper, L.A., Miller, R., Strand, E.A., and Sullivan, M. (2002). Practice guidelines for dysarthria: Evidence for behavioral management of the respiratory-phonatory system (Technical Report 3). <http://www.ncds.duq.edu/guidelines.html>. Minneapolis, MN, Academy of Neurologic Communication Sciences and Disorders.

Yorkston, K.M., **Spencer, K.A.**, Duffy, J.R., Beukelman, D.R., Golper, L.A., Miller, R., Strand, E.A., and Sullivan, M. (2001). Evidence-based practice guidelines for dysarthria: Management of velopharyngeal function (Technical Report 1). <http://www.ncds.duq.edu/guidelines.html>. Minneapolis, MN, Academy of Neurologic Communication Sciences and Disorders.

Duffy, J.R., Yorkston, K.M., Beukelman, D.R., Golper, L.A., **Spencer, K.A.**, Miller, R.M., Strand, E.A., and Sullivan, M. (2001). Medical interventions for spasmodic dysphonia and some related conditions: A systematic review (Technical Report 2). <http://www.ncds.duq.edu/guidelines.html>. Minneapolis, MN, Academy of Neurologic Communication Sciences and Disorders.

Peer-Reviewed Publications

Invited:

Spencer, K.A. & Slocumb, D.L. (2007). The neural basis of ataxic dysarthria. *The Cerebellum*, 6(1), 58-65.

Other:

Horwitz, E.S. and **Spencer, K.A.** (submitted). Daily executive function challenges in individuals with Parkinson's disease. *Journal of Medical Speech-Language Pathology*.

Sanchez, J. and **Spencer, K.A.** (in press). Preliminary evidence of discourse improvement with dopaminergic medication. *Advances in Parkinson's Disease*.

Bislick, L.P., Weir, P.C., and **Spencer, K.A.** (in press). Investigation of feedback schedules on speech motor learning in individuals with apraxia of speech. *Journal of Medical Speech-Language Pathology*.

Bislick, L.P., Weir, P.C., **Spencer, K.A.**, Kendall, D., & Yorkston, K. (2012). Do principles of motor learning enhance retention and transfer of speech skills? A systematic review. *Aphasiology*, 26(5), 709-728.

Jones, H., Kendall, D.L., Okun, M.S., Wu, S.S., Velozo, C.A., Fernandez, H., **Spencer, K.A.**, & Rosenbek, J.C. (2010). Speech motor program maintenance, but not switching, is enhanced by left-hemispheric deep brain stimulation in Parkinson's disease. *International Journal of Speech-Language Pathology*, 12(5), 385-398.

McAllen, A., **Spencer, K.A.**, France, K., & Shulein, O. (2010). Speech and manual reaction time as a function of dopaminergic medication in Parkinson's disease. *Journal of Medical Speech-Language Pathology*, 18(3), 59-74.

Spencer, K.A., Morgan, K.W., & Blond, E. (2009). Dopaminergic medication effects on the speech of individuals with Parkinson's disease. *Journal of Medical Speech-Language Pathology*, 17(3), 125-144..

Slocumb, D. & **Spencer, K.A.** (2009). The effect of feedback schedule manipulation on speech priming patterns and reaction time. *Journal of Psycholinguistic Research*, 38, 43-64.

Spencer, K.A. & Wiley, E. (2008). Response priming patterns differ with interstimulus interval duration. *Clinical Linguistics & Phonetics*, 22(6), 475-490.

Spencer, K.A. (2007). Aberrant response preparation in Parkinson's disease. *Journal of Medical Speech-Language Pathology*, 15(1), 83-96.

Spencer, K.A. & Rogers, M.A. (2005). Speech motor programming in hypokinetic and ataxic dysarthria. *Brain and Language*, 94(3), 347-366.

Spencer, K.A., Yorkston, K.M., and Duffy, J.R. (2003). Behavioral management of respiratory/phonatory dysfunction from dysarthria: A flowchart for guidance in clinical decision-making. *Journal of Medical Speech-Language Pathology*, 11(2), xxxix-lxi.

Yorkston, K.M., **Spencer, K.A.**, and Duffy, J.R. (2003). Behavioral management of respiratory/phonatory dysfunction from dysarthria: A systematic review of the evidence. *Journal of Medical Speech-Language Pathology*, 11(2), xiii-xxxviii.

Yorkston, K.M., **Spencer, K.A.**, Duffy, J.R., Beukelman, D.R., Golper, L.A., Miller, R., Strand, E.A., and Sullivan, M. (2001). Evidence-based practice guidelines for dysarthria: Management of velopharyngeal function. *Journal of Medical Speech-Language Pathology*, 9(4), 257-273.

Wambaugh, J.L., Linebaugh, C.W., Doyle, P.J., Martinez, A.L., Kalinyak-Fliszar, M., and **Spencer, K.A.** (2001). Effects of two cueing treatments on lexical retrieval in aphasic speakers with different levels of deficit. *Aphasiology*, 15(10), 933-950.

Yorkston, K.M., **Spencer, K.A.**, Duffy, J.R., Beukelman, D.R., Golper, L.A., Miller, R., Strand, E.A., and Sullivan, M. (2001). Evidence-based medicine and practice guidelines: Application to the field of speech-language pathology. *Journal of Medical Speech-Language Pathology*, 9(4), 243-256.

Rogers, M.A. and **Spencer, K.A.** (2001). Spoken word production without assembly: Is it possible? *Aphasiology*, 15(1), 68-74.

Doyle, P.J., McNeil, M.R., Park, G., Goda, A., Rubenstein, E., **Spencer, K.A.**, Carroll, B., Lustig, A., and Szwarc, L. (2000). Linguistic validation of four parallel forms of a story retelling procedure. *Aphasiology*, 14 (5/6), 537-549.

Spencer, K.A., Doyle, P.J., McNeil, M.R., Wambaugh, J.L., Carroll, B., and Park, G. (2000). Examining the facilitative effects of rhyme in a patient with output lexicon damage. *Aphasiology*, 14(5/6), 567-584.

Tompkins, C.A., **Spencer, K.A.**, and Schulz, R. (1999). Evaluating stresses and interventions for informal carers of aphasic adults: Taking a broader perspective. A commentary on Servaes, Draper, Conroy, and Bowring. *Aphasiology*, 13(12), 902-906.

Wambaugh, J.L., Doyle, P.J., Linebaugh, C., **Spencer, K.A.**, Kalinyak-Fliszar, M. (1999). Effects of deficit-oriented treatments on lexical retrieval in a patient with semantic and phonological deficits. *Brain and Language*, 69(3), 446-450.

Doyle, P.J., **Spencer, K.A.**, McNeil, M.R., Wambaugh, J.L., Carroll, B., and Park, G. (1998). Accessing the phonological output lexicon: Generalized responding in a patient with lexical form dysnomia. *Brain and Language*, 65 (1), 191-195.

Doyle, P.J., McNeil, M.R., **Spencer, K.A.**, Goda, A.J., Cottrell, K., and Lustig, A. (1998). The effects of concurrent picture presentation on retelling of orally-presented stories by adults with aphasia. *Aphasiology*, 12 (7/8), 561-574.

McNeil, M.R., Doyle, P.J., **Spencer, K.A.**, Goda, A.J, Flores, D., and Small, S.L. (1998). Effects of training multiple form classes on acquisition, generalization and maintenance of word retrieval in a single subject. *Aphasiology*, 12 (7/8), 575-585.

Spencer, K.A., Tompkins, C.A., and Schulz, R. (1997). Assessment of depression in patients with brain pathology: The case of stroke. *Psychological Bulletin*, 122 (2), 132-152.

McNeil, M.R., Doyle, P.J., **Spencer, K.A.**, Goda, A.J, Flores, D., and Small, S.L. (1997). A double-blind, placebo controlled study of pharmacological and behavioral treatment of lexical semantic deficits in aphasia. *Aphasiology*, 11(4/5), 385-400.

Doyle, P.J., Goda, A.J., and **Spencer, K.A.** (1995). Communicative informativeness and efficiency of connected discourse by adults with aphasia under structured and conversational sampling conditions. *American Journal of Speech-Language Pathology*, 4 (4), 130-134.

Spencer, K.A., Tompkins, C.A., Schulz, R., and Rau, M.T. (1995). The psychosocial outcomes of stroke: A longitudinal study of depression risk. *Clinical Aphasiology*, 23, 9-23.

Tompkins, C.A., **Spencer, K.A.**, and Boada, R. (1994). Contextual influences on judgments of emotionally ambiguous stimuli by brain-damaged and normally aging adults. *Clinical Aphasiology*, 22, 325-333.

G. CHRISTOPHER STECKER

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Center for Auditory Neuroimaging
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Education

Ph.D.	University of California, Berkeley , Cognitive Psychology	2000
M.A.	University of California, Berkeley , Cognitive Psychology	1998
B.A.	University of California, San Diego , Cognitive Science	1994

Employment

Associate Professor with Tenure , Speech & Hearing Sciences, Univ. Washington	2011-date
Director , Center for Auditory Neuroimaging, University of Washington	2010-date
Affiliate Faculty , UW Graduate Program in Neurobiology & Behavior	2010-date
Affiliate Faculty , Virginia Merrill Bloedel Hearing Research Center	2005-date
Assistant Professor , Speech & Hearing Sciences, University of Washington	2005-2011
Research Psychologist , Department of Veterans Affairs, Martinez CA	2004-2005
Instructor , Behavioral Sciences, Washtenaw Community College, Ann Arbor MI	2003-2004
Research Fellow , Kresge Hearing Research Institute, University of Michigan	2001-2004
Computing and Statistical Consultant , University of California, Berkeley	1999-2000

Research Projects, Grants, and Contracts

Principal Investigator

National Institute on Deafness and other Communication Disorders (NIDCD) R01 DC011548. "Temporal weighting of auditory spatial cues." \$1,250,000 direct costs. 9/2011–8/2016.

National Institute on Deafness and other Communication Disorders (NIDCD) R03 DC009482–02S1. "Temporal weighting of interaural time and level differences." ARRA Competitive Revision \$125,000 direct costs. 9/2009-8/2012

National Institute on Deafness and other Communication Disorders (NIDCD) R03 DC009482. "Temporal weighting of interaural time and level differences." \$300,000 direct costs. 4/2008–3/2012

National Science Foundation, IOB-0630338, "Spatial hearing and auditory cortex." \$50,000 direct costs. 9/2006– 8/2008.

National Science Foundation Postdoctoral Research Fellowship in Biological Informatics, NSF DBI-0107567. \$100,000. 7/2001-6/2003.

Co-Investigator

National Institutes of Health R21. Pending. "Auditory and tactile motion processing after early blindness." (Ione Fine, PI) \$275,000 direct costs. Role: Co-Investigator.

Other

National Institute on Deafness and other Communication Disorders (NIDCD)

F32 Postdoctoral Fellowship 1F31DC010543-01A1 (Andrew Brown). 9/2010-8/2012.

Role: Sponsor and Mentor

National Institute on Deafness and other Communication Disorders (NIDCD) R01 DC011828.

“Predicting the benefits of spatial and spectrotemporal cues.” (F. Gallun, PI) 6/2012-5/2017.

\$1,125,000 direct costs. Role: Consultant

Awards and Honors

Faculty Member of the Year. University of Washington Panhellenic Association and Interfraternity Council Greek Awards. April 2011.

National Institutes of Health Clinical Research Loan Repayment Program “Neural mechanisms of spatial hearing: binaural cue processing and auditory cortex function.” 2008-2011.

Santa Fe Institute Mathematical Modeling Workshop “From neuron to network.” 2003.

National Science Foundation Postdoctoral Research Fellowship in Biological Informatics, July 2001.

National Institutes of Health Postdoctoral Traineeship (Hearing and Chemical Senses Training Grant, NIH T32 DC00011. Kresge Hearing Research Institute). January 2001.

Teaching Effectiveness Award, Academic Senate Advisory Committee for GSI Affairs, University of California, Berkeley. May 1999.

McDonnell Foundation Summer Institute in Cognitive Neuroscience. 1995.

Courses Taught

UW SPHSC 161: The Science of Auditory Space. (Incoming UG, 5 cr.) 2007

UW SPHSC 261: The Nature of Sound (UG, 4 cr.) 2006-2011 (taught 11 times)

UW SPHSC 425: Speech, Language, Hearing, & the Brain. (UG, 4 cr.) 2010-2012 (cotaught 3 times)

UW SPHSC 505: Neuroimaging in communication disorders. (PhD) 3 cr. 2006

UW SPHSC 509: Advanced Hearing Science (AuD, 3 cr.). 2011

UW SPHSC 510: Physiological Acoustics (PhD, 3 cr.). 2007-2012 (taught 3 times)

UW SPHSC 511: Psychoacoustics (PhD, 3 cr.) 2007-2011 (taught 3 times)

UW SPHSC 521: Acoustics and Instrumentation (AuD, 3 cr.) 2006-2007 (taught 2 times)

UW SPHSC 561: Studies in Hearing Science & Disorders (PhD, 3 cr.) 2006-2012 (taught 4 times)

Washtenaw CC (Ann Arbor MI) Behavioral Sci 100: Introduction to Psychology. 2003 (taught 4 times)

Postdoctoral Research Supervision

Postdoctoral fellows supervised (2):

Nathan Higgins

2012-date

Research topic: auditory cortical neuroimaging; binaural hearing

Fang Jiang (co-mentor: Ione Fine, UW Psychology)

2011-date

Research topic: cortical auditory motion processing in blindness; auditory thalamic neuroimaging

Graduate (PhD) Research Supervision

PhD research directly supervised (4):

Mishaela DiNino (Ph.D. program in Neurobiology & Behavior)

2012-date

Rotation topic: loudness dependency of auditory cortical fMRI

Anna Diedesch (Ph.D. program in Speech & Hearing Sciences)

2011-date

Thesis topic: temporal integration of binaural cues in hearing impairment

Andrew Brown (Ph.D. program in Speech & Hearing Sciences)

2008-2012

Thesis topic: temporal processing of interaural cues.

Susan McLaughlin (Ph.D. program in Speech & Hearing Sciences)

2005-date

Thesis topic: functional MRI of human auditory cortex

PhD committess chaired, for research supervised outside department (3):

Shiboney Dumo (Ph.D. program in Speech & Hearing Sciences) **2009-2011**
Thesis topic: middle-ear tympanometry (Pat Feeney, UW Otolaryngology)
Marc Brennan (Ph.D. program in Speech & Hearing Sciences) **2005-2011**
Thesis topic: hearing aids and amplitude modulation (Pam Souza, Northwestern University)
Evelyn Davies-Venn (Ph.D. program in Speech & Hearing Sciences) **2005-2010**
Thesis topic: compression hearing aids in severe hearing loss (Pam Souza, Northwestern)

Other PhD committess served upon (9):

Robert Mohr (Ph.D. program in Psychology) **2012-date**
Thesis topic: Sound-related brain activity in fishes. (Joe Sisneros, UW Psychology)
Bonnie Lau (Ph.D. program in Speech and Hearing Sciences) **2012-date**
Thesis topic: Infant hearing (Lynne Werner, UW SPHSC)
Exu Anton Mates (Ph.D. program in Psychology) **2012-date**
Thesis topic: Vocal behavior and discrimination in infant macaques (James Ha, UW Psychology)
Erik Runeson (Ph.D. program in Psychology) **2010-date**
Thesis topic: functional MRI of visual attention (Scott Murray, UW Psychology)
Braulio Peguero (Ph.D. program in Neurobiology and Behavior) **2009-date**
Thesis topic: genetics of noise resistance (Bruce Tempel, UW Pharmacology)
William Wood (Ph.D. program in Neurobiology and Behavior) **2012**
Thesis topic: Serotonin and song in the Zebra Finch. (David Perkel, UW Biology)
Kathy Nagle (Ph.D. program in Speech and Hearing Sciences) **2010-2012**
Thesis topic: Voice quality assessment (Tanya Eadie, UW SPHSC)
Jongho Won (Ph.D. program in Bioengineering) **2009-2010**
Thesis topic: spectrotemporal processing in cochlear implants (Jay Rubinstein, UW Oto)
Curtis Billings (Ph.D. program in Speech & Hearing Sciences) **2005-2008**
Thesis topic: signal-to-noise ratio and cortical evoked potentials (Kelly Tremblay, UW SPHSC)

Graduate (AuD) Research Supervision (committees served upon)

Jacqueline Bibee (Au.D. program in Audioiogy) **2012-date**
Sarah Shepherd (Au.D. program in Audioiogy) **2011-2012**
Shehla Afridi (Au.D. program in Audioiogy) **2011-2012**
Ann Lin (Au.D. program in Audioiogy) **2011-2012**
Marcee Wickline (Au.D. program in Audioiogy) **2011-2012**
Hiroka Mamiya (Au.D. program in Audioiogy) **2009-2011**
Rebecca Davis (Au.D. program in Audioiogy) **2007**
Hannah Jeon (Au.D. program in Audioiogy) **2007**

Undergraduate Research Supervision

Jacqueline Bibee (B.S. Honors, Speech & Hearing Sciences) **2010-2011**
Sofia Penev (B.S. Honors, Neurobiology) **2010-2011**
Leah Anderson (B.S., Speech & Hearing Sciences) **2010-2011**
William Huson (B.S., Speech & Hearing Sciences) **2010-2011**
Nina Simons (B.S., Speech & Hearing Sciences) **2011**
Jennifer Ostreicher (B.S. Honors, Speech & Hearing Sciences) **2009-2010**
Lukas Untersteiner (B.A. General Studies) **2008-2009**
Ann Lin (B.S. Honors, Speech & Hearing Sciences) **2008-2009**
Anna Hiroka Mamiya (B.S. Honors, Speech & Hearing Sciences) **2007-2008**

Shiboney Dumo (B.S. Speech & Hearing Sciences)	2006-2009
Andrew Brown (B.S. Honors, Speech & Hearing Sciences)	2006-2007
Erin Reddish (B.S. Speech & Hearing Sciences)	2006-2007

Service to the University of Washington

University of Washington

Faculty Senate (elected)	2011-
date	
Faculty Council on University Facilities and Services	2012-date
Royalty Research Fund, Reviewer	2006-2012

UW College of Arts and Sciences

SPHSC Chair Selection committee	2011-2012
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Virginia Merrill Bloedel Hearing Research Center

Bloedel Website Committee	2011-2012
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Department of Speech and Hearing Sciences

Peer Teaching Evaluation Committee	2006-date
(chair)	2010-date
Research Colloquium Committee	2005-date
SPHSC Website Committee	2005-date
Minifie Lecture Committee (chair)	2009-2010
Search Committee, Faculty hire in Neuro/Language or Speech Science	2007-2008
Organizer, Faculty Research Blitz, 5/3/2006	2006

UW Training Grants

Preceptor, Speech & Hearing Training Grant NIH T32 DC000033	2006-date
Preceptor, Auditory Neuroscience Training Grant NIH T32 DC005361	2006-date
Lead organizer, ANTG Annual Retreat	2009-date
Session Chair, ANTG Retreat, May 7, 2009	2009
ANTG committee to pre-review individual fellowship applications	2006-date

Service to the Profession

Professional Committee Service

ASA Technical Committee for Psychological and Physiological Acoustics (elected)	2013-2016
ASA Hartmann Prize Committee	2012-2015
William and Christine Hartmann Prize in Auditory Neuroscience, est 2012	

Membership in Professional Societies

Acoustical Society of America (ASA)	1996-date
Association for Research in Otolaryngology (ARO)	1997-
date	
Society for Neuroscience (SFN)	2000-date
Cognitive Neuroscience Society (CNS).	2007-date

Grant Review

National Science Foundation (NSF)	UW Royalty Research Fund (RRF)
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Ad-hoc Publication Review

Acta Acustica united with Acustica	Cerebral Cortex
Brain Research	Ear and Hearing

Frontiers in Neuroscience
Hearing Research
IEEE Trans. Neural Networks
J. Acoust. Soc. Am.
J. Assoc. Res. Otolaryngol.
J. Exp. Psychol.: Hum. Percept. Perf.
J. Neurophysiol.
J. Neurosci.
Neuroimage
The Neuroscientist
Proc. Nat. Acad. Sci.
Q. J. Exp. Psychol.

Meeting Sessions Chaired and/or Organized

- 166th Acoustical Society of America **2013**
Organizer, special session: "The Ear Club: Honoring Ervin R. Hafter and his contributions to the study of binaural processing and auditory cognition."
- 164th Acoustical Society of America **2012**
3aPP: Psychological and Physiological Acoustics: Perception and Models
- 161st Acoustical Society of America **2011**
4pPP: Psychological and Physiological Sensitivity to Interaural Level Differences
- 157th Acoustical Society of America **2009**
4aPP: Psychological and Physiological Acoustics: Auditory Spatial Perception
- 4th Joint Meeting, Acoustical Society of America and Acoustical Society of Japan **2006**
4pPP - Psychological and Physiological Acoustics: Auditory Physiology (Co-chair)
- Society for Neuroscience 34th Annual Meeting **2004**
"Coding of auditory space in the brain" (Co-chair)
- Other**
- ASA School 2012: Living in the Acoustic Environment (Acoustical Society of America) **2012**
Invited lecture: "Weighting multiple acoustic cues to understand auditory space."
Organizers: Brigitte Schulte-Forkamp and Judy R. Dubno

Publications

Peer-reviewed articles (24)

- Stecker, G. C.** and Brown, A. D. (2012). Onset and offset-specific effects in interaural level difference discrimination. *J. Acoust. Soc. Am.* **132**:1573-1580.
- Brown, A. D., Kuznetsova, M. S., Spain, W. J., and **Stecker, G. C.** (2012). Frequency-dependent, location-independent adaptation of interaural time difference sensitivity. *Hear. Res.* **291**:52-56.
- Brown, A. D. and **Stecker, G. C.** (2011). Temporal weighting of interaural time and level differences. II. The effects of binaurally synchronous temporal jitter. *J. Acoust. Soc. Am.* **129**(1):293-300. PMC3055287
- Woods, D. L., Herron, T. J., Cate, A. D., Yund, E. W., **Stecker, G. C.**, Rinne, T., and Kang, X., (2010). Functional properties of human auditory cortical fields. *Front. Sys. Neurosci.* 4:155. PMC3001989
- Stecker, G. C.** (2010). Trading of interaural time and level differences in high-rate narrowband click trains. *Hear. Res.* **268**:202-212. doi:10.1016/j.heares.2010.06.002. PMC2923247.
- Stecker, G. C.** and Brown, A. D. (2010). Temporal weighting of binaural cues revealed by detection of dynamic interaural differences in high-rate Gabor click trains. *J. Acoust. Soc. Am.* **127**(5):3092-3103. PMC2882667
- Brown, A. D. and **Stecker, G. C.** (2010). Temporal weighting of interaural time and level differences in high-rate click trains. *J. Acoustic. Soc. Am.* **128**(1):332-341. PMC2921433
- Davies-Venn, E., Souza, P., **Stecker, G. C.**, and Brennan, M. (2009). Effects of audibility and multichannel wide dynamic range compression on consonant recognition for listeners with severe hearing loss. *Ear and Hearing* **30**(5):494-504.
- Billings, C. J., Tremblay, K. L., **Stecker, G. C.**, and Tolin, W. M. (2009). Sensitivity of Human evoked cortical activity to signal-to-noise ratio rather than absolute signal level. *Hear. Res.* **254**(1-2):15-24.
- Stecker, G. C.**, and Hafter, E. R. (2009). A recency effect in sound localization? *J. Acoust. Soc. Am.* **125**(6):3914-24.
- Woods, D. L., **Stecker, G. C.**, Rinne, T., Herron, T. J., Cate, A.D., Yund, E. W., Liao, I., and Kang, X. J., (2009). Functional maps of human auditory cortex: effects of acoustic features and attention. *PLoS One*

4:e5183 doi:10.1371/journal.pone.0005183.

Cate, A.D., Herron, T. J., Yund, E. W., **Stecker, G. C.**, Rinne, T., Kang, X. J., Petkov, C.I., Disbrow, E. A. and Woods, D. L. (2009). Auditory attention activates peripheral visual cortex. *PLoS ONE* 4(2): e4645. doi:10.1371/journal.pone.0004645

Harrington, I. A., **Stecker, G. C.**, Macpherson, E. A., and Middlebrooks, J. C. (2008). Spatial sensitivity of neurons in the anterior, posterior, and primary of cat auditory cortex. *Hear. Res.* **240**(1-2):22-41. doi:10.1016/j.heares.2008.02.004

Malhotra, S., **Stecker, G. C.**, Middlebrooks, J. C., and Lomber, S. G. (2008). Sound localization deficits during reversible deactivation of primary auditory cortex and/or the dorsal zone. *J. Neurophysiol.* **99**(4):1628-42. doi:10.1152/jn.01228.2007

Rinne, T., **Stecker, G. C.**, Kang, X. J., Yund, E. W., Herron, T. J., and Woods, D. L. (2007). Attention modulates sound processing in human auditory cortex but not the inferior colliculus. *Neuroreport* **18**:1311-1314

Stecker, G. C., Bowman, G. A., Yund, E. W., Herron, T. J., Roup, C.J, and Woods, D. L. (2006) Perceptual Training Improves Syllable Identification in New and Experienced Hearing-Aid Users. *J. Rehab. Res. Development.* **43**(4):537-52.

Stecker, G. C., Harrington, I. A., Macpherson, E. A., and Middlebrooks, J. C. (2005). Spatial sensitivity in the dorsal zone (area DZ) of cat auditory cortex. *J Neurophysiol.* **94**:1267-80. doi:10.1152/jn.00104.2005

Stecker, G. C., Harrington, I. A., and Middlebrooks, J. C. (2005). Location coding by opponent neural populations in the auditory cortex. *PLoS Biol.* **3**:e78 (0520-0528). doi:10.1371/journal.pbio.0030078

Stecker, G. C. (2005). Rate-limited, but accurate, central processing of interaural time differences in modulated high-frequency sounds: Focus on "Neural Sensitivity to Interaural Envelope Delays in the Inferior Colliculus of the Guinea Pig". *J Neurophysiol.* **93**:3048-9.

Stecker, G. C.(2004). Parallel Emergence of Spatial Tuning and Echo Suppression in the Auditory Midbrain? Focus on "A Neuronal Correlate of the Precedence Effect Is Associated With Spatial Selectivity in the Barn Owl's Auditory Midbrain". *J Neurophysiol.* **92**:1965-6.

Stecker, G. C.and Middlebrooks, J. C. (2003). Distributed coding of sound locations in the auditory cortex. *Biol. Cybernetics* **89**:341-349. doi:10.1007/s00422-003-0439-1

Stecker, G. C., Mickey, B. J., Macpherson, E. A., and Middlebrooks, J. C. (2003). Spatial sensitivity in field PAF of cat auditory cortex. *J. Neurophysiology* **89**:2889-2903. doi:10.1152/jn.00980.2002

Stecker, G. C.and Hafter, E. R. (2002). Temporal weighting in sound localization. *J. Acoust. Soc. Am.* **112**:1046-1057. doi:10.1121/1.1497366

Stecker, G. C.and Hafter, E. R. (2000). An effect of temporal asymmetry on loudness. *J. Acoust. Soc. Am.* **107**:3358-3368. doi:10.1121/1.429407

Book chapters (4)

Stecker, G. C. and Gallun, F. J. (2012). Binaural hearing, sound localization, and spatial hearing. In Tremblay, K. and Burkard, R. (eds). *Translational perspectives in auditory neuroscience*, pp. 387-438. San Diego: Plural Publishing.

Middlebrooks, J. C., Harrington, I. A., Macpherson, E. A., and **Stecker, G. C.** (2007) Sound localization and the auditory cortex. In Dallos, P., Oertel, D., and Hoy, R. (eds.) *The Senses: A Comprehensive Reference. Volume 3: Audition*, pp 781-805. London: Elsevier

Middlebrooks, J. C., Furukawa, S., **Stecker, G. C.**, and Mickey, B. J. (2005). "Distributed representation of sound-source location in the auditory cortex." In: Konig, Heil, Budinger, and Scheich (eds.) *Auditory cortex: a synthesis of human and animal research*. pp. 225-240. Mahwah NJ: Erlbaum

Hafter, E. R., Valenzuela, M. N., **Stecker, G. C.**, Miele, J. A., and Crum, P. A. C. (2001). Informational dominance in the auditory scene. In: Breebaart, Houtsma, Kohlrausch, Prijs, and Schoonhoven (eds.)

Physiological and psychophysical bases of auditory function. pp. 208-214. Maastricht NL: Shaker

Articles submitted for peer review (5)

Jiang, F., **Stecker, G. C.**, and Fine, I. (in revision). Localizing the human medial geniculate body in individual subjects using fMRI.

Jiang, F., **Stecker, G. C.**, and Fine, I. (submitted). Auditory motion processing after early blindness.

Brennan, M., Souza, P. Gallun, F. and **Stecker, G. C.** (submitted). Temporal resolution and speech recognition with a hearing aid.

Stecker, G. C., Ostreicher, J. D., and Brown, A. D. (submitted). Temporal weighting functions for interaural time and level differences. III. Measurements using open-loop lateralization tasks.

Brown, A. D. and **Stecker, G. C.** (in revision). The precedence effect in sound localization: Fusion and lateralization measures for pairs and trains of lead-lag stimuli lateralized by interaural time and level differences.

Software (2)

Stecker, G. C. (2008). Abstract Programming Environment (APE), MATLAB toolbox for psychophysical experiment control in TDT System 3 environment.

-Version 0.1, June 2008.

-Version 0.2, April 2010. <http://faculty.washington.edu/cstecker/APE.shtml>

Stecker, G. C. (1998). Real-time interactive signal-processing and psychoacoustics demonstrations for the Power Macintosh. Version 0.9. <http://ear.berkeley.edu/software/home.html>. Dec 1998.

Presentations

Refereed presentations (65)

Stecker, G. C., McLaughlin, S. A., and Higgins, N. C. (2013, to appear). Binaural sensitivity in human auditory cortex: analyzing the time course and spatial pattern of activity in fMRI. *Association for Research in Otolaryngology 36th Midwinter Meeting*, Baltimore MD, February 16-20, 2013.

McLaughlin, S. A., and **Stecker, G. C.** (2013, to appear). Investigating BOLD fMRI tuning to interaural level and time differences in human auditory cortex. *Association for Research in Otolaryngology 36th Midwinter Meeting*, Baltimore MD, February 16-20, 2013.

Stecker, G. C. (2012). Temporal weighting of interaural time and level differences carried by broadband noises. *164th Acoustical Society of America*. Kansas City, MO, October 22-26, 2012.

Diedesch, A. C., Bibee, J. M., and **Stecker, G. C. (2012)**. Temporal weighting for interaural time difference in low-frequency pure tones. *164th Acoustical Society of America*. Kansas City, MO, October 22-26, 2012.

Higgins, N. C., Storace, D. A., McLaughlin, S. A., **Stecker, G. C.**, Escabi, M. A., and Read, H. L. (2012). Interaural level difference tuning in auditory cortex of the human and the rat. *Society for Neuroscience 42nd Annual Meeting*. New Orleans LA, October 13-17, 2012.

Stecker, G. C. and McLaughlin, S. A. (2012). Tuning to interaural time difference in human auditory cortex. *Society for Neuroscience 42nd Annual Meeting*. New Orleans LA, October 13-17, 2012.

Jiang, F., **Stecker, G. C.**, and Fine, I. (2012). Reorganization of auditory motion direction encoding in early blind humans. *Society for Neuroscience 42nd Annual Meeting*. New Orleans LA, October 13-17, 2012.

Stecker, G. C. and McLaughlin, S. A. (2012). Binaural tuning in human auditory cortex. *4th International Conference on the Auditory Cortex*, Lausanne Switzerland, Aug 31-Sept 3, 2012.

Brown, A. D. and **Stecker, G. C. (2012)**. The precedence effect in sound localization: Distinct roles for interaural time and level differences suggested by behavioral and modeling data. *Auditory System*

Gordon Research Seminar and Conference, Lewiston ME, July 7-13, 2012.

Jiang, F., **Stecker, G. C.**, and Fine, I. (2012). Localizing the human medial geniculate nucleus using fMRI. *Organization for Human Brain Mapping 18th Annual Meeting*. Beijing China, June 10-14, 2012.

Stecker, G. C. and Brown, A. D. (2012). Does listener weighting of binaural cues correspond to the binaural statistics of rooms? *Acoustics 2012: ASA-ASC-WESPAC-HKIOA Joint Conference*. Hong Kong 13-18 May 2012.

Stecker, G. C. and McLaughlin, S. A. (2012). Using functional magnetic resonance imaging to understand the representation of binaural cues in the human auditory cortex. *Acoustics 2012: ASA-ASC-WESPAC-HKIOA Joint Conference*. Hong Kong 13-18 May 2012.

Brown, A. D. and **Stecker, G. C.** (2012). The precedence effect in sound localization: Distinct roles for interaural time and level differences suggested by behavioral, modeling, and acoustic data. *35th Assoc. Res. Otolaryngol.*, San Diego CA, Feb 25-29, 2012.

Stecker, G. C. and McLaughlin, S. A. (2011). Functional magnetic resonance imaging of binaural cues in human auditory cortex: non-monotonic response tuning to interaural level difference. *Society for Neuroscience 41st Annual Meeting*. Washington DC, Nov 12-16, 2011.

McLaughlin, S. A. and **Stecker, G. C.** (2011). Factors accounting for variation in the degree of contralateral preference in human auditory cortical processing of binaural cues: A functional magnetic resonance imaging study. *Society for Neuroscience 41st Annual Meeting*. Washington DC, Nov 12-16, 2011.

Stecker, G. C. and McLaughlin, S. A. (2011). Functional magnetic resonance imaging of binaural cues in human auditory cortex: non-monotonic response tuning to interaural level difference. *Advances and perspectives in auditory neurophysiology (APAN)*. Washington DC, Nov 10, 2011.

McLaughlin, S. A. and **Stecker, G. C.** (2011). Factors accounting for variation in the degree of contralateral preference in human auditory cortical processing of binaural cues: A functional magnetic resonance imaging study. *Advances and perspectives in auditory neurophysiology (APAN)*. Washington DC, Nov 10, 2011.

Stecker, G. C. (2011). Temporal weighting of auditory spatial cues. *Workshop "Computational Audition"* Hanse-Wissenschaftskolleg Inst. for Advanced Study, Delmenhorst Germany, Oct 24-26, 2011.

Stecker, G. C. and Brown, A. D. (2011). Temporal weighting in binaural hearing: distinct contributions of interaural time and level differences following sound onset. *161st Acoustical Society of America*, Seattle WA, May 24-27, 2011.

Brown, A. D. and **Stecker, G. C.** (2011). The precedence effect: cue vs. spatial specificity. *161st Acoustical Society of America*, Seattle WA, May 24-27, 2011.

Stecker, G. C. and McLaughlin, S. A. (2011). Monaural and binaural contributions to spatial cue tuning in human auditory cortex. *Proceedings of the 18th Annual Cognitive Neuroscience Society*, San Francisco CA March 31-April 5, 2011.

Brown, A. D. and **Stecker, G. C.** (2011). Buildup, breakdown, and re-buildup of the precedence effect: ITD versus ILD. *Association for Research in Otolaryngology 34th Annual Midwinter Meeting*, Baltimore MD 19-23 Feb. 2011.

Stecker, G. C., Ostreicher, J. D., Brown, A.D., and Stecker, J. M. S. (2011). Temporal weighting functions for lateralization by interaural time and level differences. *Association for Research in Otolaryngology 34th Annual Midwinter Meeting*, Baltimore MD 19-23 Feb. 2011.

Stecker, G. C. and McLaughlin, S. A. (2010). A comparison of binaural interaction patterns and binaural cue tuning in human auditory cortex. *Society for Neuroscience 40th Annual Meeting*. San Diego CA, Nov 13-17, 2010.

Woods, D. L., Herron, T. ., Cate, A. D., Yund, E. W., **Stecker, G. C.**, Rinne, T., and Kang, X. J. (2010). Functional properties of human auditory cortical fields. *Organization for Human Brain Mapping 16th Annual Meeting*, Barcelona, Spain, 6-10 June 2010.

- Stecker, G. C. (2010).** More modeling of temporal weighting functions for interaural time and level differences. *Association for Research in Otolaryngology Abstracts* **33**:285.
- Stecker, G. C.** and Brown, A. D. (2010). Does temporal weighting of interaural level differences include both onset and offset-specific effects? *Association for Research in Otolaryngology Abstracts* **33**:284.
- Brown, A. D., Kuznetsova, M. S., Spain, W. J., and **Stecker, G. C. (2010).** Does multi-second monaural adaptation reduce sensitivity to interaural time difference in human listeners? *Association for Research in Otolaryngology Abstracts* **33**:286.
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- Stecker, G. C.** and Brown, A. D. (2009). Modeling temporal weighting of interaural time and level differences in high-rate click trains. *J. Acoust. Soc. Am.* **125**:2523.
- Stecker, G. C.** and McLaughlin, S. A. (2009). Sensitivity to interaural level differences in high-rate high-frequency click-trains: an fMRI assessment. *J. Acoust. Soc. Am.* **125**:2690.
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- Brown, A. D. and **Stecker, G. C. (2009).** Temporal weighting of interaural time and level differences in high-rate click trains. *Association for Research in Otolaryngology Abstracts* 32:310.
- Stecker, G. C.** and McLaughlin, S. A. (2009). Functional magnetic resonance imaging of cortical sensitivity to the binaural-level characteristics of high-frequency Gabor click trains *Association for Research in Otolaryngology Abstracts*. 32:296-297.
- Stecker, G. C. (2008).** Temporal weighting of interaural level differences in high-rate click trains. *Acoustics'08 Paris: 2nd ASA-EAA Joint Conference*. Paris, France, June 29-July 4, 2008.
- Woods, D. L., **Stecker, G. C.**, Rinne, T., Cate, A. D., Liao, I. H., Herron, T. J., Kang X. J., and Yund, E. W. (2008). Stimulus and attention effects on sound activations in human auditory cortex. *Proceedings of the 15th Cognitive Neuroscience Society* **15**:268.
- Stecker, G. C. (2008).** Trading of interaural time and level differences in modulated high-frequency stimuli. *Association for Research in Otolaryngology Abstracts* **31**:302.
- Stecker, G. C. (2007).** Lateralization of dynamic interaural time and level differences in high-frequency click trains. *Association for Research in Otolaryngology Abstracts* **30**:910.
- Macpherson, E. A., Harrington, I. A., **Stecker, G. C.**, Lee, C-C., and Middlebrooks, J. C. (2007). Do Elevation-Sensitive Neurons in Cat Auditory Cortex Encode Space or Merely Spectrum? *Association for Research in Otolaryngology Abstracts* **30**:422.
- Stecker, G. C. (2006).** Rate limitation and onset dominance in the discrimination of high-frequency click trains with dynamic envelope ITDs. *J. Acoust. Soc. Am.* **120**(5,pt2):3081.
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- Macpherson, E. A., Harrington, I. A., **Stecker, G. C.**, Lee, C-C., and Middlebrooks, J. C. (2006). Contribution of Binaural Difference Cues to Azimuth Tuning of Neurons in Cat Auditory Cortex. *Association for Research in Otolaryngology Abstracts*. **29**:174.
- Stecker, G. C.**, Liao, I. H., Rinne, T., Herron, T. J., Kang, X. J., Yund, E. W., and Woods, D. L. (2005). Functional specialization of human auditory cortical fields. *Society for Neuroscience Abstracts*. **35**:282.14.
- Macpherson, E. A., Harrington, I. A., Malhotra, S., **Stecker, G. C.**, Lee, C-C., Lomber, S. G., and Middlebrooks, J. C. (2005). Effects of cryogenic deactivation on neural activity in cat auditory cortex. *Society for Neuroscience Abstracts*. **35**:615.8.

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- Rinne, T., **Stecker, G. C.**, Liao, I. H., Kang X. J., Herron, T. J., Yund, E. W., and Woods, D. L. (2005). Factors affecting the detection of sound-related subcortical activation by fMRI. *Organization for Human Brain Mapping 11th Annual Meeting*, Toronto, June 12-16 2005.
- Stecker, G. C.**, Rinne, T., Liao, I. H., Kang, X. J., Yund, E. W., Herron, T. J., and Woods, D. L. (2005). Effects of continuous broadband noise on tone-evoked activations in Human auditory cortex. *Association for Research in Otolaryngology Abstracts* **28**:467.
- Bowman, G. A., **Stecker, G. C.**, Yund, E. W., Herron, T. J., Roup, C. M., and Woods, D. L. (2005). At-home computer-based training improves phoneme processing in the hearing impaired. *Association for Research in Otolaryngology Abstracts* **28**:171.
- Harrington, I. A., **Stecker, G. C.**, Macpherson, E. A., and Middlebrooks, J. C. (2005). Spatial sensitivity of neurons in the anterior field (AAF) of cat auditory cortex. *Assoc Res Otolaryngol Abs* **28**:996.
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- Stecker, G. C.** (2004). Spatial coding by neurons in primary and non-primary areas of cat auditory cortex. Mini-symposium on coding of auditory space in the brain. *Society for Neuroscience Abstracts* **34**:247.
- Harrington, I. A., **Stecker, G. C.**, Macpherson, E. A., and Middlebrooks, J. C. (2004). Sensitivity of neurons in cat auditory cortex to local stimulus history. *Society for Neuroscience Abstracts* **34**:529.5
- Macpherson, E. A., **Stecker, G. C.**, Harrington, I. A., and Middlebrooks, J. C. (2004). Non-linear processing of spectral cues for sound localization in areas DZ and PAF of cat auditory cortex. *Society for Neuroscience Abstracts* **34**:529.6
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- Stecker, G. C.**, Harrington, I. A., Macpherson, E. A., and Middlebrooks, J. C. (2003). Spatial sensitivity of neurons in the "dorsal zone" (area DZ) of cat auditory cortex. *Society for Neuroscience 33rd Annual Meeting*, New Orleans LA, Nov 8-12, 2003.
- Harrington, I. A., **Stecker, G. C.**, Macpherson, E. A., and Middlebrooks, J. C. (2003). Effects of stimulus probability on spatial sensitivity in cat auditory cortex. *Society for Neuroscience 33rd Annual Meeting*, New Orleans LA, Nov 8-12, 2003.
- Stecker, G. C.**, Mickey, B. J., Macpherson, E. A., and Middlebrooks, J. C. (2003). A biologically-plausible code for auditory space using relative spike times in cat auditory cortex. *Association for Research in Otolaryngology Abstracts* **26**:58.
- Stecker, G. C.**, Mickey, B. J., Macpherson, E. A., and Middlebrooks, J. C. (2002). Spatial sensitivity of neurons in area PAF of cat auditory cortex. *Society for Neuroscience 32nd Annual Meeting*, Orlando FL, Nov 2-7, 2002.
- Stecker, G. C.** and Hafter, E. R. (2002). Localization judgments are sensitive to late-arriving sound. *Journal of the Acoustical Society of America* **111**:2355.
- Stecker, G. C.** (2001). Temporal weighting for sound localization in the free field. *Association for Research in Otolaryngology Abstracts* **24**:258.

Stecker, G. C. and Hafter, E. R. (2000). A model for the loudness of temporally-asymmetric sounds. *Association for Research in Otolaryngology Abstracts* **23**:105.

Stecker, G. C. and Hafter, E. R. (1998). Temporal asymmetry and loudness: frequency and duration effects. *Association for Research in Otolaryngology Abstracts* **21**:202.

Cuthbert, A., **Stecker, C.**, Aleksandrovsky, I., Ehrlich, S., Oza, N., and Rogers, P. (1997). (Proceedings) Instructional effects on spatial and temporal memory for videotaped events in a large-scale space. *Proceedings of the 19th annual conference of the Cognitive Science Society*. Stanford CA: Lawrence Erlbaum.

Stecker, G. C. and Hafter, E. R. (1996). An effect of temporal energy distribution on loudness perception. *Journal of the Acoustical Society of America* **100**:2627.

Other contributed presentations (17)

Stecker, G. C. and Bibee, J. M. (2011). Temporal weighting of Interaural Time Differences at 500 Hz. *23rd Annual Binaural Bash*. Boston MA, 18-19 Nov 2011.

Stecker, G. C. (2011). Sensory weighting of sound-localization cues by human listeners. *17th Cognitive Science Association for Interdisciplinary Learning (CSAIL)*. Hood River, OR. Aug 4-8 2011.

Stecker, G. C. (2009). Onsets, offsets, and ongoing binaural cues at high modulation rates *21st Annual Binaural Bash*. Boston MA, 23-24 Oct 2009.

Stecker, G. C. and McLaughlin S. A. (2009). Multi-voxel pattern analysis of sensitivity to binaural level configuration in human auditory cortex. *3rd International Meeting on the Auditory Cortex*, Magdeburg Germany, 28 August – 2 September 2009.

Billings, C. J., Tremblay, K. L., and **Stecker, G. C.** (2009) Signal-in-noise cortical encoding: implications for people with hearing loss. *American Auditory Society*

Stecker, G. C. and Brown, A. D. (2008). Temporal weighting of auditory spatial cues. *Auditory Perception Cognition and Action Meeting (APCAM)*. Chicago IL, Nov 13 2008.

Stecker, G. C. (2008). Recency effects in auditory sensory memory for sound localization. *14th Cognitive Science Association for Interdisciplinary Learning (CSAIL)*. Hood River, OR. July 31-Aug 4 2008.

Stecker, G. C. (2007). Time/intensity trading in the lateralization of high-frequency pulsatile stimuli. *19th Annual Binaural Bash*. Boston MA, Oct 19-20 2007.

Stecker, G. C., Harrington, I. A., Macpherson, E. A., and Middlebrooks, J. C. (2006). Local processing modifies spike timing in non-primary cat auditory cortex. *International Conference on Auditory Cortex*. Grantham UK, Sept 17-21 2006.

Davies-Venn, E., Souza, P., and **Stecker, G. C.** (2006). Consonant Recognition for severe loss using clinically fit linear vs. non-linear hearing aids. *International hearing aid research conference. IHCON 2006*. Lake Tahoe CA, Aug 16-20, 2006.

Stecker, G. C., (2005). Transposed tones vs Gaussian Impulses: reviewing evidence for binaural sensitivity and rate limitation at high frequencies. *Binaural Bash 2005*. Boston MA, Nov 4-5 2005.

Stecker, G. C. (2003). Does the spatial sensitivity of cortical neurons support a limited-channel population code for space? *Binaural Bash 2003*, Boston MA Oct 3-4, 2003.

Stecker, G. C. (2002). Temporal coding of auditory space in field PAF of cat auditory cortex. *Binaural Bash 2002*, Boston MA Oct 18-19, 2002.

Stecker, G. C. (2000). Observer-weighting for localization-dominance. *Binaural Bash 2000*, Boston MA Oct 6-7, 2000.

Stecker, G. C. (1997). Perceptual constancy in the auditory system: evidence from loudness judgments. *Proceedings of the 4th Annual Cognitive Science Association for Interdisciplinary Learning*. Hood River,

OR, Aug 3 1997.

Stecker, G. C. (1997). Loudness judgments meet perceptual constancy. *19th Annual Berkeley-Stanford Cognitive Psychology Symposium*, Berkeley CA, May 17 1997.

Stecker, G. C.(1996). The role of temporal structure in loudness perception. *18th Annual Stanford-Berkeley Cognitive Psychology Symposium*, Stanford CA, May 11 1996.

Invited research presentations (47)

- 6.21.12 Vanderbilt University Bill Wilkerson Center, Dept. Of Hearing and Speech Science
- 6.12.12 Western University Canada, School of Communication Science & Disorders.
- 9.23.11 University of Wisconsin, Auditory Neuroscience (“Hearing and Donuts”).
- 9.22.11 Northwestern University, Dept of Communication Science & Disorders.
- 9.21.11 Augustana College, Dept of Psychology.
- 9.19.11 Purdue University, Dept of Speech, Language, and Hearing Science.
- 9.16.11 Michigan State University, Dept of Psychology.
- 9.15.11 University of Michigan, Dept of Psychology.
- 9.14.11 University of Western Ontario, National Centre for Audiology.
- 2.7.11 University of Washington Graduate Program in Neurobiology and Behavior.
- 5.31.10 University of Washington Auditory Neuroscience Retreat.
- 4.2.10 University of Washington, Seminars in Hearing and Communication Sciences (SHACS).
- 11.19.09 Medical Research Council, London UK.
- 3.30.09 University of California Berkeley, Hearing Sciences (“Ear Club”).
- 11. 7.08 University of Washington, Center for Integrative Neuroscience.
- 7.7.08 Institute for Hearing Research, Medical Research Council, Nottingham UK.
- 6.27.08 University of Cambridge (UK), Department of Experimental Psychology
- 6.25.08 University of Oxford (UK), Department of Physiology, Anatomy, and Genetics
- 6.24.08 University College London, Ear Institute.
- 6.23.08 Boston University, Hearing Research Colloquium.
- 5.29.08 University of Oregon, Institute of Neuroscience.
- 10.25.07 University of Washington, Speech and Hearing Sciences
- 07.13.07 National Center for Rehabilitative Auditory Research, VA Medical Center, Portland OR.
- 03.22.07 University of Washington, Virginia Merrill Bloedel Hearing Research Center.
- 04.18.06 University of Washington, Auditory Neuroscience Training Grant
- 02.22.06 University of Washington, NSSLHA
- 11.10.05 Johns Hopkins University Medical Center
- 10.14.05 University of Minnesota, Dept. of Psychology, Auditory Psychophysics Lab
- 06.07.05 Smith-Kettlewell Eye Research Institute, San Francisco CA
- 03.15.05 VA Northern California Healthcare System, Martinez CA, Neuropsychology
- 02.28.05 University of Washington, Speech and Hearing Sciences
- 01.31.05 University of California Berkeley, Hearing Sciences (“Ear Club”)
- 09.29.04 University of Michigan, Kresge Hearing Research Institute
- 04.21.04 VA Northern California Healthcare System, Martinez CA, Human Cognitive Neurophysiology
- 04.15.04 City University of New York, Queens College, Dept. of Psychology
- 09.15.03 University of Michigan, Lawrence-Hawkins Lecture
- 07.28.03 California Institute of Technology, Computation and Neural Systems
- 05.06.03 University of Nevada Reno, Dept. of Psychology.
- 04.16.03 University of Michigan, Kresge Hearing Research Institute
- 02.20.03 University of Michigan, Dept of Psychology
- 10.09.00 University of Michigan, Kresge Hearing Research Institute
- 09.19.00 University of California Berkeley, Cognitive Psychology
- 05.18.00 Stanford University Center for Computing Research in Music and the Arts (CCRMA)
- 05.11.00 University of California, Berkeley 1999-2000 Teaching Effectiveness Award ceremony.
- 10.11.99 University of California Berkeley, Hearing Sciences (“Ear Club”)
- 05.01.99 Interdisciplinary conference on spatial cognition: Berkeley CA, (session commentary).

- 03.17.97 University of California Berkeley, Hearing Sciences ("Ear Club")
09.20.96 University of California Berkeley, Cognitive Psychology

Invited guest lectures (10)

- 4.17.12 "*Functional organization of the auditory cortex.*" University of Washington Auditory Neuroscience Training program. (Covey).
4.10.12 "*Auditory processing streams in the cerebral cortex.*" University of Washington Auditory Neuroscience Training program. (Covey).
9.20.11 "*Introduction to Magnetic Resonance Imaging.*" Augustana College Neurophilosophy Immersion Course (Harrington).
4.28.10 "*Sound demonstrations: frequency and resonance.*" Dave Clement's 3rd grade class, John Rogers Elementary School, Seattle Washington.
7.16.09 "*Binaural Hearing*" SPHSC 261 (Brown), University of Washington
1.8.09 "*Auditory neuroanatomy and functional neuroimaging methods*" SPHSC 593 (Tremblay), University of Washington.
7.11.08 "*The auditory system*" SPHSC 449 (Peter), University of Washington.
7.31.07 "*The auditory system*" SPHSC 449 (McLaughlin), University of Washington.
10.10.06 "*Review of Sound*" SPHSC 570 (Bierer), University of Washington
11.17.05 "*Binaural hearing and development*" SPHSC 462 (Kim), University of Washington.
02.25.00 "*Perceptual audio coding: the psychoacoustics of MP3.*" Psychology 2 (Clarke), University of California, Berkeley.

CURRICULUM VITAE
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Speech and Hearing Science Department
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Seattle, WA 98105
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EDUCATION

2004-2010 Doctoral Program, University of Texas at Dallas, Richardson TX
1998-2000 M.S. Deaf Education/Studies, Lamar University, Beaumont TX
1992-1996 B.A. Communication Disorders, Louisiana State University, Baton
Rouge LA

PROFESSIONAL EXPERIENCE

Present- Assistant Professor, Department of Speech and Hearing Sciences,
University Washington Seattle, WA
2000-2004 Aural-Oral Deaf Education Instructor, de Santiago Pre-K Center,
Houston, TX
Fall 2000 Student Teacher, Phoenix Day School for the Deaf, Phoenix, AZ
1999-2000 Project Assistant, Lamar University, Beaumont, TX
1997- 1998 6th & 7th Grade Math Instructor, Pierre Part Middle School, Pierre Part,
LA
1996-1997 9th Grade Instructor, Assumption Parish High School, Napoleonville,
LA

AFFILIATIONS

2010-Present Virginia Merrill Bloedel Hearing Research Affiliate

PROFESSIONAL MEMBERSHIPS

Academy of Rehabilitative Audiology
American Auditory Society
Acoustical Society of America
American Speech Hearing and Language Association
National Black Association of Speech, Language and Audiology

HONORS & AWARDS

2010 African American Student Leader
University of Texas at Dallas, Dallas TX
2010 ASHA Lessons for Success Attendee
2008 ASHA Audiology Travel Award (ARTA), Chicago IL
American Speech Language Hearing Association Convention

2007 Recipient of the School of Behavioral and Brain Sciences Excellence Award,
University of Texas at Dallas, Dallas TX
2007 NIH Student Travel Award, Charlotte, NC, 11th Symposium on Cochlear Implants in Children
2006 Conference Attendance Scholarship, Washington D.C., the State of the Science Conference on Hearing Enhancement at Gallaudet University
2006 ASHA Minority Student Leadership Award, Miami FL,
American Speech Language Hearing Association Convention
2006 ASHA Minority Student Travel Award: Auditory Plasticity Symposium,
Miami FL, American Speech Language Hearing Association Convention
2003-2004 Extra Miler Award, Aldine Independent School District, Houston, TX
1998-1999 Academic Scholarship, Lamar University, Beaumont TX

PROFESSIONAL LICENSURE & SPECIALIZATION

State of Texas Certified Teacher of the Deaf and Hard of Hearing
Pediatric Aural Habilitation Specialization, University of Texas at Dallas

UNIVERSITY EXPERIENCE

				Teaching
Winter, 2012	Management of Hearing Loss	SPHSC 481	University of	
Washington				
Winter, 2012	Hearing Aids Amplification	SPHSC 582	University of	
Washington				
Spring, 2011	Management of the HI Child	SPHSC 581	University of	
Washington				
Winter, 2011	Hearing Aids Amplification	SPHSC 582	University of	
Washington				
Spring, 2010	Hearing and Deafness	COMD 7325	University of Texas at	
Dallas				
Spring, 2009	Hearing and Deafness	COMD 7325	University of Texas at	
Dallas				
Fall, 2008	Pediatric Aural Habilitation Methods 3	COMD 7V90	University of Texas at	
Dallas				
Spring, 2007	Pediatric Aural Habilitation Methods 2	COMD 7V90	University of Texas at	
Dallas				
Fall, 2006	Pediatric Aural Habilitation Methods 1	COMD 7V90	University of Texas at	
Dallas				
Fall, 2006	Pediatric Aural Habilitation Methods 3	COMD 7V90	University of Texas at	
Dallas				

Fall, 2006 Dallas	Cochlear Implant Lab	AUD 6V20	University of Texas at Dallas
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Guest Lecturers

Fall, 2011	Hearing Disorders, “Hearing Loss and the Educational System” University of Washington		
Fall, 2010	Hearing Disorders, “Hearing Loss and the Educational System” University of Washington		
Fall, 2009	Introduction to Audiology, “Hearing Aids and Other Assistive Devices” University of Texas at Dallas, Richardson TX		
Spring, 2008	Pediatric Aural Habilitation, “Designing an Aural Habilitation Program for Children with Hearing Loss”, University of North Texas, Denton TX		
Fall, 2007 Approaches”	Introduction to Adult Aural Rehabilitation, “Auditory Training Methods and University of Texas at Dallas, Richardson TX		
Spring, 2006 Auditory Training”	Pediatric Aural Habilitation, “The Hierarchy of Auditory Perception and University of Texas at Dallas, Richardson TX		

Teaching Assistant

Summer, 2006 Dallas	Auditory Verbal Methods	COMD 7323	University of Texas at Dallas
Spring, 2006 Dallas	Hearing and Deafness	COMD 7325	University of Texas at Dallas
Fall, 2005 Dallas	Audiology Doctoral Research Methods	AUD 7382	University of Texas at Dallas
Summer, 2005 Dallas	Auditory Verbal Methods	COMD 7323	University of Texas at Dallas
Spring, 2005 Dallas	Hearing and Deafness	COMD 7325	University of Texas at Dallas

Student Evaluation of Teaching

Winter, 2012 students	Management of Hearing Loss	SPHSC 481	UW (rating 3.1) 76
Winter, 2012 students	Hearing Aids Amplification	SPHSC 582	UW (rating 2.3) 12
Spring, 2011 students	Management of the HI Child	SPHSC 581	UW (rating 3.3) 24
Winter, 2011 students	Hearing Aids Amplification	SPHSC 582	UW (rating 2.8) 13

GRANTS

Currently Funded

“Generalization of Improvements in Speech Recognition in Noise Following Auditory Training in Interrupted Noise for Children with Hearing Loss”

PI: J. Sullivan

Period: 7/12-7/13

Agency: Royalty Research Foundation, University of Washington

Past Funded

“Effects of Auditory Training in Noise on Children with Hearing Impairment”

PI: J. Sullivan

Agency: F31 DC 9537 NIH/NIDCD

Period: 1/08-12/10

"Computer-Based Auditory Training to Improve Speech Recognition in Noise by Children with Hearing Impairment"

PI: J. Sullivan

Period: 1/08-12/08

Agency: Doctoral Supplement Grant, School of Behavioral and Brain Sciences
University of Texas at Dallas

“Computer-based Auditory Training and Children with Hearing Impairment”

PI: J. Sullivan

Agency: TSHA Foundation President’s Endowed Research Grant

Period: 04/07-04/08

Not Funded

“Generalization of Speech Recognition Improvements to Real World Noise Conditions following Auditory Training”

PI: J. Sullivan

Agency: NOHR

Period: 11/11

Pending

“Generalization of Speech Recognition Improvements to Real World Noise Conditions following Auditory Training”

PI: J. Sullivan

Agency: ASHA New Century Grant

Period: Submitted 05/12

Period: 2nd resubmission 01/12

“Cognitive Factors, Speech Perception in Noise, and Learning for Children”

PI: J. Sullivan

Agency: RO3 NIH/NIDCD

Period: To be submitted October 29, 2012

PUBLICATIONS

Peer Reviewed Journal Publications

Sullivan, J., Thibodeau, L., & Assmann, P. (In Press), Performance-intensity function in interrupted and continuous noise for children with hearing impairment. *Journal of Educational Audiology*.

Sullivan, J., Thibodeau, L., & Assmann, P. (Revisions), Auditory training in interrupted noise improves speech recognition in noise for children with hearing impairment, *Journal of Acoustical Society of America*.

Tobey, E., Wiessner, N., Lane, J., Sundarajan, M., Buckley, K. and **Sullivan, J.**, (2007), Phoneme Accuracy as a Function of Mode of Communication in Pediatric Cochlear Implantation, *Journal of Audiological Medicine* 5(4) 283-292.

Sullivan, J. & Thibodeau, L. (2007) Computer-based Auditory Training and Children with Hearing Impairment. *Tejas*, 14-21.

Invited Publications

Tremblay K., Scollie S., Abrams H., McMahon K., & **Sullivan J.**, (in prep 2012). Hearing aids and the brain: Neuroscience and Clinical Implications. *International Journal of Otolaryngology*.

Invited Non-Peer Reviewed Publication

Sullivan J., (in prep 2012). 20 Questions-Pediatric Aural Habilitation: Past, Present, and Future. *Audiology Online*.

Manuscripts in Preparation

Sullivan, J., Assmann, P., & Hossain, S. (To be submitted August 2012), “Effects of voice gender and perceptual learning on the perception of masked speech processed through cochlear implant simulations”, *Journal of Acoustical Society of America*.

Osman, H., **Sullivan, J.** & Miller, C. (To be submitted August 2012), "Early detection and audiology services for children in Vietnam". *International Journal of Pediatric Otorhinolaryngology*.

Sullivan, J., Schafer, E., & Osman, H., (To be submitted December 2012), “A met-analysis of auditory training in noise”. *American Journal of Audiology*.

Sullivan, J., Miller, C., Pisoni, D., & Faulkner, K., (In prep), "Evaluation of PRESTO Sentences in speech-shaped noise and Multitalker Babble" *Ear & Hearing*.

Book Chapter

Thibodeau L. Bondurant L., & **Sullivan, J.** Advocacy for Optimal Educational Arrangements in Cochlear Implants. In: *What Every Parent Of Deaf Infants Should Know About Cochlear Implants*. Editors Loy, B., and Roland, P. Plural Publishing, San Diego (2008).

Abstracts

Sullivan, Jessica Renee. (2010). Computer-based auditory training to improve speech recognition in noise by children with hearing impairment. The University of Texas at Dallas. ProQuest Dissertations and Theses, <http://search.proquest.com/docview/752068340?accountid=14784>

Wiessner, N., Lane, J., **Sullivan, J.**, Tobey, E., & Geers, A. Consonant and vowel accuracy in children with cochlear implant. 11th Symposium on Cochlear Implants in Children, 2007, Charlotte, NC.

Thibodeau, L.M., Schafer, E., Overson, G., Whalen, H., & **Sullivan, J.** Clinical evaluation of benefit provided by FM systems directly connected to cochlear implants. 10th Symposium on Cochlear Implants in Children, pp28, 2005, Dallas, TX.

Invited Presentations

Sullivan, J. America Speech Language Hearing Association (ASHA) Convention. "Thinking About a Ph.D.? Information for Prospective Doctoral Students" Atlanta, GA (2012)

Sullivan, J. America Speech Language Hearing Association (ASHA) Convention. "Pediatric Auditory Training: Improving Perception of Speech in Noise" San Diego, CA (2011)

Sullivan, J. & Sweeney M. Health Occupation Student Association (HOSA). "Careers for the Future: Audiology and Speech-Language Pathology" Dallas TX (2008).

Presentations

Osman, H., **Sullivan, J.** & Miller, C. America Speech Language Hearing Association (ASHA) Convention. "A Profile of Hearing Impaired Children in Vietnam" Atlanta, GA (2012).

Sullivan, J. & Thibodeau, L. National Black Association for Speech-Language and Hearing (NBASLA). Tampa, FL Technical session: "Effect of Computer-based Auditory Training in Noise." (2010)

Sullivan, J. & Thibodeau, L. Academy of Rehabilitative Audiology (ARA) " Develop of a Computer-based Auditory Training in Noise program for Children with Hearing Loss." Bettendorf, Iowa (2009)

Sullivan, J. & Thibodeau, L. America Speech Language Hearing Association (ASHA) Convention
“Benefits of Computer Based Auditory training for Children with Hearing Loss.” Chicago, IL (2008)

Sullivan, J. & Thibodeau, L. Summer Auditory Rehabilitation Conference (SIARC) Dallas, TX.
“Computer-Based Auditory Training Programs and Children Hearing Loss.”
(2007).

Sullivan, J. & Thibodeau, L. National Black Association for Speech-Language and Hearing
Charlotte, NC, Student Research Forum: “Computer-Based Auditory Training Programs and
Children with Hearing Loss.”(2007)

Poster Presentations

Sullivan, J., Assmann, P., & Hossain, S. (2011), Effects of voice gender and perceptual learning on
the perception of masked speech processed through cochlear implant simulations.
Acoustical Society of America.

Sullivan, J., Thibodeau, L., & Assmann, P. (2011). “Computer-Based Auditory Training to Improve
Speech Recognition in Noise by Children with Hearing Impairment”. ARO Mid-winter Meeting;
Baltimore MD

Sullivan J., & Thibodeau, L. (2010). “Enhancing auditory perception in noise for children with
hearing loss”, Callier PACE: Student Research Form; Dallas, TX.

Sullivan J., & Thibodeau, L. (2010). “Enhancing auditory perception in noise for children with
hearing loss”, American Auditory Society; Scottsdale, AZ.

Assmann P. & **Sullivan J.** (2008). “Contribution of voice gender to speech masking in cochlear
implant simulations”, International Congress of Audiology; Hong Kong.

Sullivan, J., Thibodeau, L., Terry, E., Ryan, L., and Schaal, S. (2007). “Computerized Auditory
Training at Home: A Review of Programs”; presented at Texas Alexander Graham Bell
Association Conference, Dallas, Texas.

Thibodeau, L., Bondurant, L., **Sullivan, J.,** & Tillman, S. (2007). “Evaluation of FM Systems
Interfaced with Cochlear Implants in the Plano Regional Day School for the Deaf”;
Presented at Texas Alexander Graham Bell Conference; Dallas, Texas.

Thibodeau, L.M., **Sullivan, J.R.,** & Schafer, E.C. (2006). “Comparison of four FM microphones
arrangements.” Poster presented at American Academy of Audiology Convention,
Minneapolis, MN.

Sullivan, J.R. & Thibodeau, L.M. (2006). “Children’s Auditory Training Project: A Case Study.”
Poster presented at the Auditory Plasticity Symposium during the American Speech
Language Hearing Association Convention, Miami, FL.

Direction of Student Theses and Research Projects

Committee Chair

AuD/PhD

Homira Osman, "The Relationship between Working Memory & Speech in Noise Perception in Children with Moderate-Severe Hearing Impairment."(2011-present)

AuD

Jasmine Meyers, "Speech perception of high variability sentences in noise" (2011-present)

Sara Elshafei, "Comparison of phonological processing and speech perception in noise with Children with hearing Loss and with Speech Impairments" (2011-present)

Elizabeth, Golhofer, "Speech perception in interrupted and continuous noise for monolingual and bilingual school age children" (2011-present)

Ashley Timboe, "Pediatric development of speech perception in interrupted and continuous." (2011)

Committee Member

Kelly Corcoran (AuD project 2011-present)

Student Mentored Awards

ASHA Audiology Travel Award (ARTA)-(2012) Homira Osman

Auditory Rehabilitation Summer Fellowship-University of Washington (2012)-Homira Osman

The Warren and Gayle Johnson Scholarship-for students aiming to work with disadvantaged populations-(2012)-Elizabeth Golhofer

Judy Gravel Fellowship-University of North Carolina (2011)-Ashley Timboe

Minority Student Leadership Program-American Speech and Hearing Association (ASHA) class of 2011 –Homira Osman

Outstanding AuD Student-Ballard Lions Club, Seattle Washington (2011)-Elizabeth Golhofer

Direction of Independent Studies

Summer 2012	Homira Osman	SPHSC 801	1 credits
Spring 2012	Elizabeth Golhofer	SPHSC 801	2 credits
	Homira Osman	SPHSC 801	3 credits
	Jasmine Meyer	SPHSC 801	6 credits
	Homira Osman	SPHSC 801	2 credits
Winter 2012	Homira Osman	SPHSC 801	2 credits
Fall 2011	Homira Osman	SPHSC 801	2 credits
	Sara Elshafei	SPHSC 801	1 credit
	Libby Golhofer	SPHSC 801	2 credits
Spring 2011	Erica Gonzales	SPHSC 499	2 credits
	Ashley Timboe	SPHSC 801	2 credits
	Elizabeth Golhofer	SPHSC 801	2 credits
Winter 2011	Erica Gonzales	SPHSC 499	2 credits
	Kaitlin Winterstien	SPHSC 499	2 credits
	Ashley Timboe	SPHSC 801	2 credits

PARTICIPATION IN TEACHING AND PROFESSIONAL DEVELOPMENT

2012	Faculty Professional Learning Group-Exploring Service Learning
2011	Frye Electronics Hearing Aid Analyzer workshop
2011	Grant writing for new investigators at ARO
2011	Pediatric Audiology Teaching Conference, University of Pittsburgh
2010	ASHA Lessons for Success- Grant writing workshop
2010	UW Faculty Fellows Program

EDITORIAL SERVICE

Invited editor- International Journal of Otolaryngology for Special issues on hearing aids and the brain (2012)

Ad Hoc Reviewer for:

Journal of Educational Audiology
 Journal Speech and Language and Hearing Research
 International Journal of Audiology

PROFESSIONAL SERVICE

2005- 2007	Co-coordinator, Summer Intensive Aural Rehabilitation Conference University of Texas at Dallas
2003-2004	Academic Committee Chair, De Santiago Early Childhood Center
2002-2003	School Climate Committee Chair, De Santiago Early Childhood Center
1999-2000	President, Council of American Instructors of the Deaf, Lamar University
1998-1999	Treasurer, Council of American Instructors of the Deaf, Lamar University

University of Washington

2012-Present	Diversity Recruitment Committee for SPHSC
2012-Present	Development of Summer Intensive Aural Rehabilitation Conference University of Washington
2012-Present	Auditory Neuroscience Preceptor
2011-Present	Audiology faculty representative for University Lions Club
2011-Present	Child Language Search Committee, Speech and Hearing sciences Department
2010-Present	SHACS committee
2010-Present	Audiology Interest Group

Consulting

2011-2012	Global Foundation for Children with Hearing Loss
2010- Present	Listen and Talk Preschool, Seattle, Washington

COMMUNITY SERVICE

National

1994-Present	Alpha Kappa Alpha Sorority Inc- Mission has been to cultivate and encourage high scholastic and ethical standards, to promote unity and friendship among college women, to study
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and help alleviate problems concerning girls and women in order to improve their social stature, to maintain a progressive interest in college life, and to be of “*Service to All Mankind.*”

<http://www.aka1908.com/about-aka/mission.html>

Hospitality Chair
Heifer International chair
Emerging Young Leaders Program

Local

- 2011-Present **Dynamic Urban Opportunities Board of Directors**
Mission is to serve the community by enriching and improving the lives of under-represented people living in the region through focused programs in education, economics, the family, health and the arts and will advance education among members of our diverse communities by providing scholarships, cultural, health, and educational activities, which address and support issues that impact families. Read more at
http://www.sos.wa.gov/charities/search_detail.aspx?charity_id=32036
Vice President 2012-Present
- 2011-Present **Louisiana State University Alumni Seattle Chapter** Board Member
President 2012-Present
- 2006-2010 **Louisiana State University Alumni Dallas Chapter** Board Member
- 2004-2010 **Crystal Charity Ball Cochlear Implant Camp** Volunteer

Curriculum Vitae: John C. Thorne, Ph.D., CCC-SLP

Research Interests

- Reliable and valid diagnosis & classification of language disorders particularly in school-aged children;
- Discourse sample analysis as a tool for clinical decision making;
- Childhood language disorders and their comorbidity with other cognitive, developmental, and mental health impairments (with an emphasis, currently, on children exposed prenatally to alcohol);
- Utilization of computer technologies in treatment for childhood language impairments;

Teaching Interests

- Best practice in the diagnosis & treatment of childhood language disorders with particular interest in the development of language during the school years.
- Clinical training and supporting coursework
- Research design and methods

Education

- | | | | |
|-------------------------------|-------|------|---------------------------|
| • New Mexico State University | BA | 1987 | English |
| • New Mexico State University | MA | 1989 | Curriculum & Instruction |
| • University of New Mexico | MS | 1997 | Communication Disorders |
| • University of Washington | Ph.D. | 2010 | Speech & Hearing Sciences |

Dissertation title: *Tallying Reference Errors in Narratives: Integrative Language Function, Impairment, and Fetal Alcohol Spectrum Disorders* (<http://hdl.handle.net/1773/16321>).

Professional Licensure

- CCC-SLP (American Speech-Language Hearing Association—since 1999);
- Licensed SLP (State of Washington since 2009; New Mexico, since 1999- currently inactive);

Academic and Professional Honors

Traineeships/awards

- Trainee- Research Training in Speech and Hearing Sciences, NIH Grant # 2T32DC000033, 2005-2008 (tuition plus wage);
- Trainee- Leadership in Education Neurodevelopmental and related Disorders, (6T73MC00041-11-01) HRSA MCH Bureau (tuition plus wage) 2003-2005;

- Travel Award Winner – Lesley B. and Steven G. Olswang Endowed Graduate Student Conference Fund, November, 2009; Travel Award winner (NIH Cnf. Grant # R13 DC01677), Symposium on Research in Child Language Disorders, 2005 & 2008; Travel Award Winner—UW Graduate School Fund for Excellence and Innovation, October, 2004.
- Research Assistant, University of New Mexico (tuition plus wage) 1996-1998;
- Dean’s List, New Mexico State University, Arts & Sciences, undergraduate 1985.

Publications

Research Papers

Thorne, J. C., & Coggins, T. E. (2008). A diagnostically promising technique for tallying nominal reference errors in the narratives of school-aged children with Foetal Alcohol Spectrum Disorders (FASD). *International Journal of Language & Communication Disorders*, 43 (5), 570-594.

Thorne, J. C., Coggins, T. E., Carmichael-Olsen, H., & Astley, S. J. (2007). Exploring the utility of narrative analysis in diagnostic decision-making: Picture-bound reference, elaboration, and Fetal Alcohol Spectrum Disorders. *Journal of Speech, Language, and Hearing Research*, 50(2).

Oelschlaeger, M. L., & **Thorne, J. C.** (1999). Application of the correct information unit analysis to the naturally occurring conversation of a person with aphasia. *Journal of Speech, Language, and Hearing Research*, 42(3), 636-648.

Book Chapters (Invited)

Thorne, J. C., Jirikowic, T., Davies, J., & Brooks, A. (March, 2010). Fetal alcohol spectrum disorders. In R. Nass & F. Yitzchak (Eds.), *Cognitive and Behavioral Abnormalities of Pediatric Diseases*, First Edition. Oxford: Oxford University Press.

Coggins, T. E., & **Thorne, J. C.** (April, 2010). Substance abuse and childhood language disorders. In J. S. Damico, M. J. Ball & N. Muller (Eds.), *Handbook Of Language And Speech Disorders*: Ames, IA, Blackwell.

Assessment materials (under development)

Thorne, J. C. (2006). Tallying reference errors in narrative: University of Washington, available <http://johncthorne.files.wordpress.com/2010/05/treinwebmanual.pdf>

Thorne, J. C. (2004). The semantic elaboration coding system: University of Washington.

Research Experience and Projects

Development and validation of a narrative analysis tool for diagnostic decision-making involving school-aged children with Fetal Alcohol Spectrum Disorders (FASD).

Aspects of the project already completed include:

- theoretical and empirical work to develop a unique narrative coding system based on models of discourse from Cognitive Linguistics;
- training and supervision of graduate assistants doing narrative transcription and reliability coding;
- applying for and receiving approval from University of Washington Human Subjects Internal Review Board for three studies aimed at validation of the system;
- Design and completion of a feasibility study to demonstrate the system's potential diagnostic utility; implementing appropriate research design and statistical analysis tools for the validation of diagnostic tests;
- Design and completion of 2 follow-up studies to demonstrate improved efficiency and performance resulting from system refinements based on results of the feasibility study;
- Publication of peer-reviewed research related to project (see "Publications").
- Presentation of research results to peer-reviewed national forums and local agencies (see "Presentations" below).
- Dissertation project—*Tallying Reference Errors in Narratives: Integrative Language Function, Impairment, and Fetal Alcohol Spectrum Disorders*: a study of the relationship between narrative performance and clinical indicators of risk for underlying CNS damage (both structural and functional) in a clinical population of children diagnosed with FASD. (N=155) collected from two of group: one consisting of typically developing children and a second consisting of children with a CNS impairment identified during a clinical assessment for suspected FASD. This study was done in coordination with interdisciplinary research teams at the University of Washington Fetal Alcohol Syndrome Diagnostic and Prevention Network (Susan Astley, PI), Families Moving Forward Project at Seattle Children's Hospital Research Institute (Heather Carmichael Olson, PI), the Child Language Laboratory in the University of Washington Department of Speech & Hearing Sciences (Truman Coggins and Lesley Olswang, PI's).

Other research experience:

University of Washington: Lab Coordinator—Child Language Laboratory

- Duties include coordination of communications, scheduling, personnel, and equipment for research laboratory which includes 3-5 Ph.D. students, and approximately 10 graduate/undergraduate research assistants, and Ph. D level clinical researcher working under Dr. Truman Coggins and Dr. Lesley Olswang. 2005 – present.

University of New Mexico: Research Assistant

- Duties included working cooperatively with Dr. Mary Oelschlaeger in designing and conducting research on conversational interactions between persons with aphasia and their spouses. Experience also included literature and library searches, application of computer technologies to all aspects of the research effort, and design, completion, and publication of my own research (Oelschlaeger & Thorne, 1999). 1996 – 1998.

Grant Submission

- Narrative Discourse, Impairment, and Fetal Alcohol Spectrum Disorders. 2008. Ruth L. Kirschstein NRSA Awards for Individual Predoctoral Fellows (F31)—National Institute on Deafness and Other Communication Disorders (NIDCD)/ National Institute of Alcohol Abuse and Alcoholism (NIAAA).

Selected Presentations

Peer Reviewed forums

Thorne, J. C. & Coggins, T. E. (2010, June). Narrative Analysis: to reveal neurocognitive impairments, counts errors not desirable features. Poster presented at the Symposium on Research in Child Language Disorders, Madison, WI.

Grittner, J. M., Coggins, T. E., **Thorne, J. C.**, & Olswang, L. (2009, November). Classification Accuracy of Nominal Reference Errors for Fetal Alcohol Syndrome. Poster presented at the American Speech-Language Hearing Association National Convention New Orleans, LA.

Thorne, J. C., & Coggins, T. E. (2008, June). Signals of CNS damage in the discourse behavior of school-aged children with prenatal alcohol exposure during a narrative generation task. Poster presented at the Symposium on Research in Child Language Disorders 2008, Madison, WI.

Thorne, J. C., & Coggins, T. E. (November, 2006) Discourse errors as a signal of CNS damage in FASD. Poster presented at the ASHA national convention. Miami Beach, FL.

Thorne, J. C., & Coggins, T. E. (June, 2005). Exploring the utility of narrative analysis to aid in the diagnosis of fetal alcohol spectrum disorders (FASD): The Semantic Elaboration Coding System (SECS). Poster presented at the Symposium on Research in Child Language Disorders, Madison, WI.

Thorne, J. C., & Coggins, T. E. (November, 2004). The semantic elaboration coding system: semantic elaboration in the narratives of children with FASD. Poster presented at the ASHA national convention. Philadelphia, PA.

Invited

Research Briefing: narrative analysis & FASD. Presentation to the Washington State Fetal Alcohol Syndrome Diagnostic & Prevention Network, Seattle WA. May, 2010.

Betz, S., **Thorne, J. C.**, Finestack, L., Hoover, J. (November, 2007) What to Consider When Considering a PhD: A Peer Perspective. Panel discussion at ASHA national convention. Boston, MA.

Research Briefing: narrative analysis & FASD. Presentation to the Washington State Fetal Alcohol Syndrome Diagnostic & Prevention Network, Yakima WA. June, 2006.

Development of speech and language skills: the first three years. Presentation to the Friends of Youth Healthy Start program (case-managers working with teen-age mothers to provide pre & post-natal support). Redmond, WA. January, 2005.

Other forums

Narrative errors as a signal of underlying CNS damage in Fetal Alcohol Spectrum Disorders (FASD). Presentation to University of Washington Department of Speech and Hearing Sciences Doctoral Research Forum, Seattle, WA. January, 2008.

The rate of Nominal Reference Errors in Fetal Alcohol Syndrome and Fetal Alcohol Spectrum Disorders. Presentation to University of Washington Department of Speech and Hearing Sciences Doctoral Research Forum, Seattle, WA. October, 2006.

Progress report: FAS, FASD & Narrative. Presentation to the interdisciplinary research team of the University of Washington Fetal Alcohol Spectrum Disorders Diagnosis & Prevention Network Clinic, Seattle, WA, April, 2006.

Exploring the utility of narrative analysis in diagnostic decision-making: Picture-bound reference, elaboration, and Fetal Alcohol Spectrum Disorders. Presentation to University of Washington Department of Speech and Hearing Sciences Doctoral Research Forum, Seattle, WA. March, 2006.

Narrative analysis in diagnostic decision making: the semantic elaboration coding system and fetal alcohol spectrum disorders. University of Washington Leadership Education in Neurodevelopment and related Disorders—Annual Leadership Forum, Seattle, WA. May, 2005.

Creating a reliable measure: the semantic elaboration coding system (SECS). Presentation to University of Washington Department of Speech and Hearing Sciences Doctoral Research Forum, Seattle, WA. January 2005.

Weighing words: using elaboration in narratives to understand children's language abilities. University of Washington Leadership Education in Neurodevelopment and related Disorders—Annual Leadership Forum, Seattle, WA. October, 2004.

Teaching Experiences

Professional

- **Higher Education:**
- Instructor, Department of Speech & Hearing Sciences at the University of Washington, 2011 to present (current teaching: 303 Language Science, 405 Diagnosis of Speech and Language Disorders, 536 Assessment and Treatment in School-age Communication Disorders, and 250 Human Communication and Disorders).
- Speech Clinical Supervisor, Speech & Hearing Sciences 551/552: *Advanced Practicum in Speech Pathology Evaluation/treatment*, 2009 to present.
- Instructor, Speech & Hearing Sciences 305: *Speech and Language Disorders*, University of Washington, Autumn, 2008
- Instructor, Speech & Hearing Sciences 405: *Diagnosis of Speech and Language Disorders*, University of Washington. Winter, 2007
- Trainer, *Team Training Workshop*, University of Washington Fetal Alcohol Diagnostic and Prevention Network. March, 2005.
- Lead Teaching Assistant: Department of Speech and Hearing Sciences, 2009 to present
- Instructor, Communication Sciences and Disorders 510: *Clinical and Educational Methods*, Northern Arizona University. Summer, 2003
- Instructor, remedial college writing courses, Albuquerque Technical Vocational Institute Department of Adult and Developmental Studies, Albuquerque, NM. 1994 – 1998.
- **Public Schools:**
- Instructor, Special Education Community Based Work-Study Program, Bernalillo High School, Bernalillo, NM. 1990 -1994
- Instructor, self-contained classroom for children with emotional or behavioral handicaps, Lynn Middle School, Las Cruces, NM. December 1989 – June 1990.
- Substitute Teacher, high-school English and Language Arts programs including long-term assignments, Las Cruces Public Schools, Las Cruces, NM. 1988.

Other

- Student Teaching: self-contained classroom for students with multiple handicaps and autism, Mesilla Valley Vocational Training Center, Las Cruces, NM. Summer, 1989; Sixth Grade Science and English classroom, Picacho Middle School, Las Cruces, NM. Spring, 1989. Student Teacher, C-level general special education classroom, Lynn Middle School, Las Cruces, NM. Fall 1989.
- Creative Writing Instructor, Southern New Mexico Men's Correctional Facility – in conjunction with course work at New Mexico State University Department of Education, Las Cruces, NM. Fall, 1987.

Speech-Language Pathology Clinical Experience

- University of Washington Fetal Alcohol Syndrome Diagnostic and Prevention Network Clinic: SLP on an interdisciplinary team providing diagnostic services for families and training for professionals locally, nationally and internationally—2003 to present.
- University of Washington Center For Human Development and Disability Child Development Clinic: providing diagnostic services to families of children with neurodevelopmental disabilities 2003-2005; 2009 to present.
- Cooperative Education Services: serving elementary-aged children in multicultural rural & urban school districts—Albuquerque, Grants, and Los Lunas, NM. Dec. 2001 to 2003.
- VTA Management Services: serving preschool and school aged children in school and home settings—New York City, NY. Autumn, 2001.
- Kirtland Elementary School: serving K-5 in multi-cultural setting—Albuquerque, NM. 1997 to 2001.

Management Experience

Special Education Coordinator/ Department Chair, Bernalillo High School Department of Special Education, Bernalillo, NM. Responsibilities included oversight of program and curriculum development, parent / community outreach, oversight of all IEP meetings, preparation of required state reports, course matrix, policy development, budget, inventory, service provision, and coordination with community based organizations (Department of Vocational Rehabilitation, City & Tribal Governments, School Boards, etc.). Oversight of certified staff and para-professionals serving minority students in full-inclusion settings. 1991-1994.

CURRICULUM VITAE
KELLY L. TREMBLAY, PH.D., CCC-A
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Speech and Hearing Sciences Department
University of Washington
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Seattle, WA 98105
tremblay@u.washington.edu

EDUCATION

University of Western Ontario B.A. in Psychology	(1981-1985)	London, Ontario, Canada
Dalhousie University M.Sc. in Audiology	(1985-1987)	Halifax, Nova Scotia, Canada
Northwestern University Ph.D. in Hearing Sciences Dissertation Title: <i>The Time Course of Auditory Learning</i>	(1992-1998)	Evanston, Illinois, USA
House Ear Institute USA Post Doctoral Scientist - Electrophysiology Department	(1997-1999)	Los Angeles, California,
Rotman Research Institute/Baycrest Visiting Scientists - Sabbatical	(2005-2006)	Toronto, Ontario, Canada

RESEARCH AND CLINICAL EXPERIENCE

Communication Assoc. of Colorado	Clinical Fellow	1987-1988
Denver Ear Associates	Audiologist	1988-1989
Capron Institute for Rehabilitation	Audiologist/Dept. Head	1989-1992
Northwestern University	Research Assistant	1992-1998
Evanston Hospital	Consulting Audiologist	1994-1997
House Ear Institute	Post Doctoral Scientist	1997-1999
University of Washington	Assistant Professor	1999- 2004
	Associate Professor	2004- 2011
	Full Professor	2011-present

PROFESSIONAL MEMBERSHIPS

American Academy of Audiology
American Speech-Language-Hearing Association
American Auditory Society – Executive Board
Association for Research in Otolaryngology
International Evoked Response Audiometry Group

AWARDS AND HONORS

1. **Northwestern University Graduate Student Scholarship** (1992 - 1997)
2. **Whitaker Foundation Student Fellowship** (1995)
3. **American Academy of Audiology** – Young Investigator Award (1996)
4. **University of Washington Mary Gates Research Assistant Award** (1999)
5. **National Institutes of Health/National Institute on Aging** – Summer Institute on Aging Research – competitive invitation (1999)
6. **Best of Hearing Science Literature 2000** – for the publication “A Moment of Science.” Acknowledged in *The Hearing Journal*. April 2001, Vol. 54, No. 4
7. **Best of Hearing Science Literature 2001** – for the publication “Central Auditory Plasticity: Changes in the N1-P2 Complex after Speech-Sound Training.” Acknowledged in *The Hearing Journal*. May 2002, Vol. 55, No. 5
8. **Best of Hearing Science Literature 2001** – for the publication “A Moment of Science.” Acknowledged in *The Hearing Journal*. May 2002, Vol. 55, No. 5
9. **Editor’s Award 2002 – Outstanding Research in Audiology and the Hearing Sciences.** Awarded by the American Auditory Society for the publication “Central Auditory Plasticity: Changes in the N1-P2 Complex after Speech-Sound Training.” *Ear and Hearing*. 2001, Vol. 22
10. **Best of Hearing Science Literature 2002** – for the publication of “A Moment of Science” 2002 series. Acknowledged in *The Hearing Journal*. May 2003, Vol. 56, No. 5
11. **Best of Audiology Literature 2002** – for the publication “Auditory training induces asymmetrical changes in cortical neural activity.” Acknowledged in *The Hearing Journal*. May 2003, Vol. 56, No. 5
12. **University of Washington** – Nominated for Distinguished Graduate Mentor Award, 2003
13. **2003 M.A.B. Brazier Young Investigator Award** – Awarded by the International Federation of Clinical Neurophysiology for the publication “Effects of age and age-related hearing loss on the neural representation of speech-cues”
14. **Best of Audiology 2003** – for the publication “Central auditory plasticity: Implications for auditory rehabilitation.” Acknowledged in *The Hearing Journal*. May 2004, Vol. 57, No. 5
15. **Best of Hearing Science Literature 2003** – for the publication “Test-retest reliability of cortical evoked potentials using naturally produced speech sounds.” Acknowledged in *The Hearing Journal*. May 2004, Vol. 57, No. 5
16. **The Hearing Journal 2004** – Named one of the top contributors in the past ten years of the “Page Ten” publication. *The Hearing Journal*. Jan 2004, Vol. 57, No. 1
17. **University of Washington** – Nominated for Distinguished Teaching Award, 2004
18. **University of Washington Virginia Merrill Bloedel Hearing Research Center – Traveling Scholar (2005-2006)**
19. **Best of Audiology Literature 2006-** for the publication “New perspectives on assessing amplification effects.” Acknowledged in *The Hearing Journal*, June 2007, Vol. 60, No.6
20. **Best of Audiology Literature 2007** – for the publication “Moment of Science,” Noise exposure might affect your hearing later in life. Acknowledged in *The Hearing Journal*, June 2008, Vol. 41, No.6
21. **Best of Audiology Literature 2007** – for the publication “The role of event-related brain potentials in assessing central auditory processing. Acknowledged in *The Hearing Journal*, June 2008, Vol. 41, No.6

22. **Best of Audiology Literature 2007** – for the publication “Prediction of speech recognition from audibility in older listeners with hearing loss: effects of age, amplification, and background noise.” Acknowledged in *The Hearing Journal*, June 2008, Vol. 41, No.6
23. **American Speech and Hearing Association** – named a Fellow in 2008
24. **Best of Audiology Literature 2008** - for the publication “Aging in binaural hearing begins in mid-life: Evidence from cortical auditory-evoked responses to changes in interaural phase”. *J Neurosci* 27:11,172-11,178.” Acknowledged in *The Hearing Journal*, May 2009, Vol. 62, No.5
25. **Best of Audiology Literature 2008** - for the publication “Speech evoked potentials: From the laboratory to the clinic”. *Ear Hear.* Acknowledged in *The Hearing Journal*, May 2009, Vol. 62, No.5
26. **University of Washington Virginia Merrill Bloedel Research Scholar (2008-2011)**
27. **Best of Audiology Rehabilitation Literature 2009** – for the column “A Moment of Science.” *Audiology Today*. Acknowledged in *The Hearing Journal*, May 2010, Vol. 63, No.6
28. **American Auditory Society** – Elected to serve on Executive Board.

STUDENT-MENTORED AWARDS

1. **University of Washington** – Mary Gates Undergraduate Research Award – Brian Otis (1999)
2. **University of Washington** – Mary Gates Undergraduate Research Award – Allison Cunningham (2002 and 2003).
3. **University of Washington – Speech and Hearing Sciences Training Grant (2003)**. Lendra Friesen.
4. **Conference on Implantable Auditory Prostheses (CIAP), Student Travel Scholarship (2003)**. – Awarded to Curtis Billings.
5. **American Auditory Society** – Mentored Doctoral Student Research Poster – Session grant from the National Institute of Health and the American Auditory Society (2004)-Curtis Billings.
6. **University of Washington – Auditory Neuroscience Training Grant (2004)** –Curtis Billings.
7. **American Speech-Language-Hearing Association** – ASHA Century Scholar awarded to Lendra Friesen (2004)
8. **Best of Hearing Science 2004** – Awarded to Lendra Friesen for the column “A Moment of Science.” Acknowledged in *The Hearing Journal*. May 2005, Vol. 59.
9. **Conference on Implantable Prostheses Student Travel Award** – Awarded to Lendra Friesen (2005)
10. **Oticon Student Research Scholarships** – Awarded to Curtis Billings (2005)
11. **American Academy of Audiology Student Research Award** – Awarded to Lendra Friesen (2005)
12. **Association for Research in Otolaryngology Student Travel Award** – Awarded to Lendra Friesen (2005)
13. **Best of Audiology Literature 2006**- Awarded to Lendra Friesen for the publication “Aminoglycoside-induced hair cell death.” Acknowledged in *The Hearing Journal*, June 2007, Vol. 60, No. 6.
14. **Conference on Implantable Prostheses Student Travel Award**- Awarded to Katie Faulkner

(2007)

15. **American Speech-Language-Hearing Foundation, 2007, New Century Scholars Doctoral Scholarship Recipient.** Awarded to Curtis Billings.
16. **International Evoked Response Audiometry Study Group (IERASG) 2007 Biennial Symposium:** Student scholarship. Awarded to Curtis Billings.
17. **NIH/NIDCD Individual Predoctoral Fellowship (F31 DC007296), University of Washington.** Title: Hearing Aids and Auditory Evoked Potentials. Awarded to Curtis Billings. PI: Kelly Tremblay PhD
18. **NIH/NIDCD Institutional Predoctoral Fellowship (T32 DC005361), University of Washington,** Title: Auditory Neuroscience Training Program. Administrator Ellen Covey, Ph.D. Awarded to Curtis Billings.
19. **NIH/NIDCD Institutional Predoctoral Fellowship (T32 DC005361), University of Washington, Title:** Auditory Neuroscience Training Program. Administrator Ellen Covey, Ph.D. Awarded to Kathleen Faulkner (2007-2009).
20. **NIH/NIDCD Institutional Predoctoral Fellowship (F31DC010309), University of Washington, Title:** “Auditory training to improve spectral resolution in CI users”. Awarded to Student: Kathleen Faulkner (2009- 2011). PI: Kelly Tremblay PhD
21. **NIH/NIDCD Institutional Predoctoral Fellowship (T32 DC00033), University of Washington, Title:** Speech and Hearing Sciences. Administrator Lynne Werner, Ph.D. Awarded to Chris Clinard (2007-2009).
22. **NIH/NIDCD Individual Predoctoral Fellowship (F30 DC010297)** Title: “Electrophysiology and Auditory Training.”
23. **NIH/NIDCD Individual Predoctoral Fellowship (F31DC010553),** Title: “Age-related changes in spectral processing” Awarded to Chris Clinard. PI: Kelly Tremblay, PhD. (2010-2011).
24. **NIH/NIDCD Individual Postdoctoral Fellowship (F32DC012497-01A1),** Title: ““Neural representation and perception of envelope and fine structure in human.” Awarded to Jongho Won. PI: Kelly Tremblay, PhD. (2012-2014).
25. **American Speech and Hearing Association Century Scholar 2007 –** Awarded to Curtis Billings
26. **American Auditory Society (2008) –** Mentored Doctoral Student Research Poster – Session grant from the National Institute of Health and the American Auditory Society – Awarded to Chris Clinard.
27. **American Auditory Society (2008) –** Mentored Doctoral Student Research Poster – Session grant from the National Institute of Health and the American Auditory Society – Awarded to Kate McClannahan.
28. **International Evoked Response Audiometry Meeting (2009) -** Travel award. Rio de Janeiro, Brazil. Awarded to Chris Clinard.
29. **Student travel award for the Aging and Speech Communication Conference, Bloomington, IN (October 2009).** Awarded to Chris Clinard.
30. **National Center for Rehabilitative Auditory Research (NCRAR) Conference,** Travel Scholarship awarded to Katrina McClannhan, 2009
31. **NIH/NIDCD Individual Predoctoral Fellowship (1 F30 DC010297-01A1),** Title: “Electrophysiology and Auditory Training.” Awarded to Katrina McClannahan. PI: Kelly Tremblay, PhD. (Jan 2010 to Dec 2013).
32. **NIH-sponsored student poster presentation at the American Auditory Society Meeting,**

- Scottsdale, AZ (March 2010)** Awarded to Chris Clinard.
33. **Olswang Endowed Graduate Student Conference Fund Award** to attend the Association for Research in Otolaryngology MidWinter Meeting, Anaheim, CA (February 2010). Awarded to Chris Clinard.
34. **American Speech and Hearing Association Century Scholar 2010** – Awarded to Kathleen Faulkner.
35. **University of Washington Graduate Student Conference Travel Award** to attend the Association for Research in Otolaryngology MidWinter Meeting, Anaheim, CA (February 2010). Awarded to Chris Clinard.
36. **Conference on Implantable Auditory Prostheses Travel Award** - awarded to Kathleen Faulkner (2011)

TEACHING ASSESSMENT

* **Scale:** 0=Very Poor, 1=Poor, 2=Fair, 3=Good, 4=Very Good, 5=Excellent

Date	Course Title	Course Number	Course Evaluation *(see scale below)
Winter 1999	Assess. Auditory Dysfunction I	SPHSC 571	4.25/5
Spring 1999	Physiologic Assessment	SPHSC 573	4.24/5
Summer 1999	Balance Assessment	SPHSC 574	3.71/5
Autumn 1999	Assess. Auditory Dysfunction I	SPHSC 570	4.60/5
Winter 2000	Assess. Auditory Dysfunction II	SPHSC 571	3.58/5
Spring 2000	Physiologic Assessment	SPHSC 573	4.06/5
Autumn 2000	Assess. Auditory Dysfunction I	SPHSC 570	4.86/5
Autumn 2000	Pro-Seminar	SPHSC 588	Not routinely evaluated
Winter 2001	Assess. Auditory Dysfunction II	SPHSC 571	4.80/5
Spring 2001	Jr. Faculty Development Leave		
Autumn 2001	Pro-Seminar	SPHSC 588	Not routinely evaluated
Autumn 2001	Assess. Auditory Dysfunction I	SPHSC 570	4.95/5
Winter 2002	Assess. Auditory Dysfunction II	SPHSC 571	4.76/5
Spring 2002	Hearing Disorders	SPHSC 371	4.50/5
Autumn 2002	Assess. Auditory Dysfunction I	SPHSC 570	5.00/5
Winter 2003	Maternity Leave		
Spring 2003	Hearing Disorders	SPHSC 371	4.20/5
Autumn 2003	Hearing Disorders	SPHSC 371	4.50/5
Autumn 2003	Assess. Auditory Dysfunction I	SPHSC 570	4.20/5
Winter 2004	Assess. Auditory Dysfunction II	SPHSC 571	4.90/5
Autumn 2004	Assess. Auditory Dysfunction I	SPHSC 570	4.60/5
Autumn 2004	Hearing Disorders	SPHSC 371	4.80/5
Winter 2005	Assess. Auditory Dysfunction II	SPHSC 571	4.40/5
Spring 2005	Special Topics	SPSHC 523	4.33/5
Spring 2005	Ethics	SPHSC 587	4.70/5
Autumn 2005	Sabbatical	See Independent Studies	
Winter 2006	Sabbatical	See Independent Studies	
Autumn 2006	Hearing Disorders	SPHSC 371	4.1/5

Autumn 2006	Geriatric Audiology	SPHSC 579	4.2/5
Spring 2006	Special Topics	SPHSC 523	Not evaluated
Autumn 2007	Hearing Disorders	SPHSC 371	4.4/5
Autumn 2007	Geriatric Audiology	SPHSC 579	Not evaluated
Winter 2008	Special Topics	SPHSC 523	Not evaluated
Spring 2008	Geriatric Audiology	SPHSC 579	4.0/5
Autumn 2008	Hearing Disorders	SPHSC 371	Not evaluated
Winter 2009	Electrophysiology II	SPHSC 593	3.5/5
Autumn 2009	Hearing Disorders	SPHSC 371	4.2/5
Winter 2010	Special Topics	SPHSC 523	4.9/5
Autumn 2011	Hearing Disorders	SPHSC 371	4.4/5

DIRECTION OF INDEPENDENT STUDIES AND THESES

Autumn 1999	Christina Kejriwal	SPHSC 599	2 credits
Autumn 2000	Michael Piskosz	SPHSC 599	1 credit
Winter 2001	Michael Piskosz	SPHSC 700	3 credits
Spring 2001	Curtis Billings	SPHSC 599	2 credits
	Michael Piskosz	SPHSC 700	6 credits
Summer 2001	Curtis Billings	SPHSC 700	2 credits
Autumn 2001	Brenna Simon	SPHSC 499	2 credits
	Neeru Rohila	SPHSC 499	3 credits
	Curtis Billings	SPHSC 700	2 credits
Winter 2002	Neeru Rohila	SPHSC 499	2 credits
	Curtis Billings	SPHSC 700	2 credits
	Lendra Friesen	SPHSC 600	3 credits
Spring 2002	Neeru Rohila	SPHSC 499	3 credits
	Curtis Billings	SPHSC 700	3 credits
	Lendra Friesen	SPHSC 600	4 credits
	Laura Kalstein	SPHSC 600	2 credits
	Lendra Friesen	SPHSC 600	8 credits
Summer 2002	Marshall Terrie	SPHSC 599	2 credits
	Lendra Friesen	SPHSC 600	2 credits
Autumn 2002	Laura Kalstein	SPHSC 700	3 credits
	Curtis Billings	SPHSC 700	2 credits
	Allison Cunningham	SPHSC 499	1 credit
	Buffy Ann Robinson	SPHSC 499	3 credits
	Neeru Rohila	SPHSC 499	2 credits
Winter 2003	Curtis Billings	SPHSC 600	5 credits
	Lendra Friesen	SPHSC 600	6 credits
	Allison Cunningham	SPHSC 499	3 credits
	Laura Kalstein	SPHSC 700	3 credits
	Buffy Ann Robinson	SPHSC 499	2 credits
	Neeru Rohila	SPHSC 600	2 credits
Spring 2003	Curtis Billings	SPHSC 700	6 credits
	Lendra Friesen	SPHSC 600	8 credits

	Laura Kalstein	SPHSC 700	4 credits
	Allison Cunningham	SPHSC 499	2 credits
	Buffy Ann Robinson	SPHSC 499	2 credits
Summer 2003	Neeru Rohila	SPHSC 600	1 credits
	Curtis Billings	SPHSC 700	6 credits
	Lendra Friesen	SPHSC 600	5 credits
Autumn 2003	Neeru Rohila	SPHSC 700	1 credits
	Curtis Billings	SPHSC 600	2 credits
	Lendra Friesen	SPHSC 600	6 credits
Winter 2004	Neeru Rohila	SPHSC 700	3 credits
	Curtis Billings	SPHSC 600	2 credits
	Lendra Friesen	SPHSC 600	8 credits
Spring 2004	Neeru Rohila	SPHSC 700	3 credits
	Curtis Billings	SPHSC 700	5 credits
	Lendra Friesen	SPHSC 600	9 credits
	Keri O'Connell	SPHSC 599	4 credits
Summer 2004	Brenna Carroll	SPHSC 599	10 credits
	Keri O'Connell	SPHSC 599	3 credits
	Neeru Rohila	SPHSC 600	2 credits
	Curtis Billings	SPHSC 700	2 credits
	Lendra Friesen	SPHSC 600	5 credits
Autumn 2004	Keri O'Connell	SPHSC 599	3 credits
	Neeru Rohila	SPHSC 700	2 credits
	Curtis Billings	SPHSC 600	2 credits
	Lendra Friesen	SPHSC 600	9 credits
	Brenna Carroll	SPHSC 600	5 credits
	Curtis Billings	SPHSC 564	3 credits
	Lendra Friesen	SPHSC 600	9 credits
Winter 2005	Neeru Rohila	SPHSC 700	1 credit
	Curtis Billings	SPHSC 600	2 credits
	Lendra Friesen	SPHSC 600	8 credits
	Mari Barger	SPHSC 600	5 credits
	Brenna Carroll	SPHSC 600	5 credits
	Neeru Rohila	SPHSC 700	5 credits
	Michelle Quinn	SPHSC 599	2 credits
	Lendra Friesen	SPHSC 564	1 credit
Spring 2005	Neeru Rohila	SPHSC 700	1 credit
	Curtis Billings	SPHSC 600	8 credits
	Lendra Friesen	SPHSC 600	8 credits
	Marie Barger	SPHSC 600	5 credits
	Brenna Carroll	SPHSC 600	5 credits
	Michelle Quinn	SPHSC 599	2 credits
	Lendra Friesen	SPHSC 564	1 credit
Summer 2005	Curtis Billings	SPHSC 600	2 credits
	Lendra Friesen	SPHSC 800	8 credits
	Sonia Kang	SPHSC 599	2 credits

Autumn 2005	Curtis Billings	SPHSC 600	10 credits
	Lendra Friesen	SPHSC 800	9 credits
	Lisa Hong	SPHSC 599	4 credits
Winter 2006	Katie Faulkner	SPHSC 600	2 credits
	Katie Faulkner	SPHSC 600	2 credits
	Curtis Billings	SPHSC 600	6 credits
Spring 2006	Lendra Friesen	SPHSC 800	9 credits
	Lisa Semie Ness	SPHSC 600	3 credits
	Lisa Semie Ness	SPHSC 600	3 credits
Summer 2006	Curtis Billings	SPHSC 600	6 credits
	Lendra Friesen	SPHSC 800	8 credits
	Katie Faulkner	SPHSC 600	2 credits
Autumn 2006	Curtis Billings	SPHSC 600	6 credits
	Lendra Friesen	SPHSC 800	8 credits
	Katie Faulkner	SPHSC 600	2 credits
Winter 2007	Lisa Semie Ness	SPHSC 600	3 credits
	Curtis Billings	SPHSC 600	10 credits
	Lendra Friesen	SPHSC 800	9 credits
Spring 2007	Katie Faulkner	SPHSC 600	5 credits
	Chris Clinard	SPHSC 600	3 credits
	Chris Clinard	SPHSC 600	3 credits
Summer 2007	Lisa Semie Ness	SPHSC 600	4 credits
	Curtis Billings	SPHSC 600	10 credits
	Lendra Friesen	SPHSC 800	10 credits
Autumn 2007	Katie Faulkner	SPHSC 600	2 credits
	Chris Clinard	SPHSC 600	4 credits
	Chris Clinard	SPHSC 600	4 credits
Winter 2007	Melissa Jong	SPHSC 600	3 credits
	Lisa Davis	SPHSC 600	3 credits
	Lisa Davis Bell	SPHSC 600	3 credits
Spring 2008	Chris Clinard	SPHSC 600	8 credits
	Katie Faulkner	SPHSC 600	5 credits
	Kate McClannahan	SPHSC 600	2 credits
Autumn 2007	Curtis Billings	SPHSC 800	8 credits
	Lisa Davis Bell	SPHSC 600	3 credits
	Chris Clinard	SPHSC 600	6 credits
Winter 2007	Katie Faulkner	SPHSC 600	2 credits
	Wendy Tolin	SPHSC 499	2 credits
	Curtis Billings	SPHSC 800	10 credits
Spring 2008	Chris Clinard	SPHSC 600	1 credit
	Katie Faulkner	SPHSC 600	5 credits
	Melissa Jong	SPHSC 600	6 credits
Autumn 2007	Kate McClannahan	SPHSC 600	3 credits
	Wendy Tolin	SPHSC 499	2 credits
	Curtis Billings	SPHSC 800	10 credits

	Katie Faulkner	SPHSC 800	8 credits
	Chris Clinard	SPHSC 600	7 credits
	Kate McClannahan	SPHSC 600	4 credits
	Mallory Baker	SPHSC 499	1 credit
	Sarah Wiese	SPHSC 499	2 credits
	Jordan Cannon	SPHSC 499	1 credits
	Kendre Howland	SPHSC 499	1 credit
	Wendy Tolin	SPHSC 499	3 credits
Summer 2008	Katie Faulkner	SPHSC 800	2 credits
	Curtis Billings	SPHSC 600	2 credits
	Chris Clinard	SPHSC 800	10 credits
	Jordan Cannon	SPHSC 499	2 credits
Autumn 2008	Katie Faulkner	SPHSC 800	5 credits
	Sarah Weise	SPHSC 499	1 credit
	Jordan Cannon	SPHSC 499	2 credits
	Katrina McClannahan	SPHSC 600	3 credits
	Chris Clinard	SPHSC 564	3 credits
Winter 2009	Chris Clinard	SPHSC 600	2 credits
	Mallory Baker	SPHSC 499	3 credits
	Katie Faulkner	SPHSC 564	3 credits
	Chris Clinard	SPHSC 600	4 credits
	Kate McClannahan	SPHSC 600	2 credits
Spring 2009	Katie Faulkner	SPHSC 800	5 credits
	Jordan Cannon	SPHSC 499	3 credits
	Mallory Baker	SPHSC 499	2 credits
	Chris Clinard	SPHSC 600	3 credits
Summer 2009	Katie Faulkner	SPHSC 800	5 credits
	Chris Clinard	SPHSC 600	9 credits
	Kate McClannahan	SPHSC 600	10 credits
Autumn 2009	Katie Faulkner	SPHSC 800	1 credit
	Katie Faulkner	SPHSC 800	9 credits
	Chris Clinard	SPHSC 600	7 credits
	Rebecca Lewis	SPHSC 600	3 credits
	Katrina McClannahan	SPHSC 600	5 credits
	Christi Miller	SPHSC 600	8 credits
Winter 2010	Kate McClannahan	SPHSC 600	9 credits
	Christi Miller	SPHSC 600	4 credits
	Katie Faulkner	SPHSC 800	9 credits
	Chris Clinard	SPHSC 800	10 credits
Spring 2010	Coralee Choules	SPHSC 599	3 credits
	Christi Miller	SPHSC 599	1 credit

	Jessica Hesson	SPHCS 600	1 credit
	Kate McClannahan	SPHSC 600	9 credits
	Christi Miller	SPHSC 600	10 credits
	Katie Faulkner	SPHSC 800	9 credits
	Chris Clinard	SPHSC 800	10 credits
Summer 2010	Katie Faulkner	SPHSC 800	2 credits
	Jessica Hesson	SPHSC 600	2 credits
	Chris Clinard	SPHSC 800	10 credits
	Katarina McClannahan	SPHSC 600	6 credits
	Shivani Patel	SPHSC 600	4 credits
	Ashley Timboe	SPHSC 600	3 credits
	Christi Miller	SPHSC 600	7 credits
Autumn 2010	Katie Faulkner	SPHSC 800	9 credits
	Jessica Hesson	SPHSC 600	2 credits
	Chris Clinard	SPHSC 800	10 credits
	Katarina McClannahan	SPHSC 600	6 credits
	Shivani Patel	SPHSC 600	4 credits
	Ashley Timboe	SPHSC 600	3 credits
	Christi Miller	SPHSC 600	7 credits
Winter 2011	Katie Faulkner	SPHSC 800	9 credits
	Katrina McClannahan	SPHSC 564	3 credits
	Katrina McClannahan	SPHSC 600	6 credits
	Christi Miller	SPHSC 800	7 credits
Spring 2011	Katie Faulkner	SPHSC 800	9 credits
	Jessica Hesson	SPHSC 801	2 credits
	Jordan Cannon	SPHSC 801	2 credits
	Katarina McClannahan	SPHSC 600	1 credit
	Ingyu Chun	SPHSC 801	2 credits
	Jasmine Meyers	SPHSC 801	3 credits
Autumn 2012	Katie Faulkner	SPHSC 800	9 credits
	Christi Miller	SPHSC 801	2 credits
	Jordan Cannon	SPHSC 801	2 credits
	Katarina McClannahan	SPHSC 600	8 credits
	Ingyu Chun	SPHSC 801	2 credits
	Jasmine Meyers	SPHSC 801	3 credits
Winter 2012	Katie Faulkner	SPHSC 800	9 credits
	Christi Miller	SPHSC 800	2 credits
	Jordan Cannon	SPHSC 801	2 credits
	Katarina McClannahan	SPHSC 600	8 credits
	Ingyu Chun	SPHSC 801	2 credits
	Jasmine Meyers	SPHSC 801	3 credits
Summer 2012	Christi Miller	SPHSC 800	9 credits

	Katarina McClannahan	SPHSC 600	7 credits
Autumn 2012	Christi Miller	SPHSC 800	10 credits
	Katarina McClannahan	SPHSC 800	7 credits
	Christina DeFrancisci	SPHSC 801	2 credits

DIRECTION OF STUDENT THESES AND RESEARCH PROJECTS

Committee Chair

Post Doc

Kayo Inoue Ph.D. – University of Washington (2006 - 2010)

Jongho Won Ph.D. – University of Washington (2010 - 2012)

PhD

Lendra Friesen, “Speech evoked auditory potentials in cochlear implant listeners” (Ph.D.2007).
Now Assistant Professor, Adjunct, University of Toronto, Faculty of Medicine, Dept. of Otolaryngology

Curtis Billings, “Auditory evoked potentials and signal-to-noise ratio” (Ph.D. 2008)
Now an Assistant Professor in Dept. of Otolaryngology at Oregon Health Sciences Unit and Research Investigator at the National Center for Rehabilitative Audiology Research, Portland, OR (NCRAR)

Chris Clinard, “Age-related Changes in Spectral Processing” (2006 – 2010)

Now an Assistant Professor at James Madison University, Harrisonburg, Virginia.

Kathleen Faulkner, “Auditory training to improve spectral resolution in CI users” (2005 – 2012)
Now a post-doc at Indiana University with David Pisoni PhD

Katrina McClannahan, “Electrophysiology and Auditory Training” (2008 - present)

Christi Miller – “Signal-to-noise-ratio at the output of the hearing aid: What is its relation to self assessment measures?” (2009 – present)

MS and AuD

Michael Piskosz, “The effects of aging on voice-onset-time perception: An electrophysiological and behavioral study” (Master’s thesis, 2001).

Curtis Billings, “The effects of age and stimulus factors on the N1-P2 complex” (Master’s thesis, 2002).

Neeru Rohila, “The effects of age on the neural representation of simple and complex stimuli” (Undergraduate Honors project, 2002).

Allison Cunningham, “Consonant confusions and their neural response patterns: A Case Study” (Undergraduate Honors project, 2003).

Laura Kalstein, “Neurophysiological measures of amplified speech in hearing-impaired listeners” (Master’s thesis, 2003).

Neeru Rohila, “Neural representation of speech cues as a function of number of cochlear implant channels” (Master’s thesis, 2004).

Keri O’Connell, “Ototoxicity and Zebrafish” (AuD Research Project, 2004/2005).

Michelle Quinn, “Demographic analysis of AuD program growth” (AuD Research Project, 2004/2005).

Lisa Ness, “Ototoxicity and Zebrafish” (AuD Research Project, 2005/2007).

Lindsay Fulfs, “Infection control methods in audiology” (AuD Research Project, 2006/2008)

Wendy Tolin, “Auditory evoked potentials and hearing aids” (Undergraduate Honors Project, 2007/8).

Jordan Cannon, “Aging and Frequency Coding” (Undergraduate Honors Project, 2008/9).

Marcie Hoskyn. “Intra-subject reliability in people wearing musician ear plugs” (AuD Research Project , 2008-present).

Wendy Tolin, “Spectral ripple training in normal hearing adults” (AuD Research Project, 2010-present).

Shivani Patel, “Longitudinal changes in device settings among implant users” (AuD Research Project 2010-present).

Jessica Hesson. “Spectral ripple discrimination training in children” (AuD Research Project, 2010-present).

Committee Member

Theresa Luley (M.S. thesis, 1999).

Kate Drummond (M.S. thesis, 2001).

Ryan Connelly (M.S. thesis, 2001)

Jesica Pruitt (Ph.D. thesis, 2001 – 2004)

Richard Folino (M.S. thesis, 2002)

Megan McFarland (M.S. thesis, 2002)

Setsuko Murakami (M.S. thesis, 2002 – 2004)

Vickie Lorraine Farmer (Graduate School Representative – Ph.D., 2002 – 2005)

Jenifer Joan Hermes (Graduate School Representative – Ph.D. 2003 – 2006)

Emily Curtis (Graduate School Representative – Ph.D. 2001 – 2005)

Erin Donlin (M.S. thesis, 2003)

Evelyn Davies-Venn (M.S. thesis, 2004)

Mari Barger (Au.D. project, 2004)

Marc Caldwell 2005 (M.S. thesis)

Kumi Boike (Ph.D. thesis, 2001-2004)

Chris Sanford (Ph.D. thesis, 2001 – 2005)

Carolyn Tooley-Young (Ph.D. thesis, 2001 – 2006)

Daniella Kim (Ph.D. Dissertation, 2004 – 2006)

Stephanie Bor (Ph.D. Dissertation, 2004 – 2008)

Susan McLoughlin (Ph.D. Dissertation, 2007 – 2012)

Kumin Seo, (Graduate School Representative – Ph.D. 2006 – present)

Ilano Ipitikane (Graduate School Representative- Ph.D. 2006 - present)

Melissa Caras (Graduate School Representative (2008-2012)

Jongho Won Ph.D. – University of Washington (2008 - 2010)

William Wood (Graduate School Representative 2008-present)

Jessica Thomas (Ph.D. Dissertation 2011 – present)

PARTICIPATION IN TEACHING AND PROFESSIONAL DEVELOPMENT

1. UW Faculty Fellows Program (1998)
2. UW Faculty Workshops on Teaching and Learning: Mentoring Graduate Students (1999)
3. UW Junior Faculty Development Seminar – School of Medicine (1999)
4. UW Junior Faculty Development – Preparation of Tenure Materials (2000)
5. UW Provost’s Faculty Workshops on Teaching and Learning: Leading Effective

- Seminars (2002)
6. ADVANCE 2nd coed Mentoring for Leadership Lunch with Ron Irving (Divisional Dean of Natural Sciences) (April, 2007)
 7. UW/NSF Sponsored LCVI/ADVANCE Leadership Workshop (May, 2007)
 8. UW/NSF Sponsored LCVI/ADVANCE Leadership Workshop (Feb, 2008)
 9. UW/NSF Sponsored LCVI/ADVANCE Leadership Workshop (May, 2008)
 10. Winter quarter UW ADVANCE Quarterly Leadership Workshop (February, 2009)
 11. Spring quarter UW ADVANCE Quarterly Leadership Workshop (May, 2009)
 12. Fall quarter UW ADVANCE Quarterly Leadership Workshop (December, 2009)
 13. Fall quarter UW ADVANCE Quarterly Leadership Workshop (December, 2010)
 14. Winter quarter UW ADVANCE Quarterly Leadership Workshop (March, 2011)

COMMITTEES AND SERVICE

University of Washington

Appointed to the Graduate Faculty, University of Washington (1999)
 Appointed as a Virginia Merrill Bloedel Center affiliate (1999)
 SPHSC Doctor of Audiology (Au.D.) program development (2000 – present)
 SPHSC Colloquium Committee (2000 – present)
 SPHSC Search Committee for Clinical Audiology Position (Marilyn Dille, Ph.D.) (2000)
 SPHSC Search Committee for SPHSC Voice position (2001)
 SPHSC Fireside Chat monthly coordinator (2001 – present)
 Member of the Graduate Faculty (2001 – present)
 Research Affiliate – UW Institute for Learning and Brain Sciences (2001 – present)
 SPHSC Search Committee for Center for Mind Brain and Learning (two positions) (2002)
 UW Disabled Student Services – Consultant to Dyane Haynes: provide information on central auditory processing disorders for students at the UW (2001 – present)
 UW Auditory Neuroscience training grant preceptor and admissions chairperson (2002 – present)
 UW SPHSC training grant preceptor (2002 – present)
 UW SPHSC Auditory Neuroscience training grant preceptor (2002 – present)
 UW SPHSC Search Committee for Audiology position (2003 – 2004)
 UW SPHSC Colloquium coordinator (2003 – 2004)
 UW SPHSC Peer Teaching Evaluation Committee Chair (2004 – 2008)
 Tenure Advisory Committee for Kristie Spencer, Ph.D. (2004 – present)
 Technical Support/Advisory Committee (2004 – present)
 Tenure Advisory Chair for Stacy Betz, Ph.D. (2007 – 2008)
 UW SPHSC – Graduate Program Coordinator/Assoc. Chair (Spring quarter 2007)
 UW SPHSC Search Committee for Audiology position (2010)
 UW Faculty Senator – (2006 – 2011)
 UW SPHSC – Head of Audiology (2007-present)
 Tenure Advisory Chair for Julie Bierer, Ph.D. (2007 – present)
 Tenure Advisory Chair for Jessica Sullivan, Ph.D. (2010 – present)
 UW SPHSC Ombudsman (2007-present)

State/National

American Academy of Audiology – *Audiology Today* monthly publication “A Moment of Science,” (2000 – present)

American Academy of Audiology – Research Committee (2001 – present)
American Academy of Audiology – Reviewer for New Investigator/Student Grant Awards (2001, 2002, 2004)
American Academy of Audiology – Featured session coordinator (2002 – 2003)
American Speech-Language Hearing Association (ASHA) Technical/Platform Papers Committee Member for the 2003 ASHA Convention in Chicago.
American Speech-Language Hearing Association (ASHA) Topic Coordinator for the 2005 ASHA Convention in San Diego.
Conference on Implantable Auditory Prostheses – Steering Committee 2007
National Science Foundation – Regular reviewer of grant applications.
National Institutes of Health – *Ad hoc* AuD. study section member.
American Auditory Society - Podium Session Chair 2008
Member of the program committee for conference entitled: “The Ear-Brain System: Approaches to the Study and Treatment of Hearing Loss” Sponsored by the National Center for Rehabilitative Auditory Research in Portland, OR. (2008)
International Symposium Cochlear Implants in Children 2009 - Organizing committee 2009
American Federation for Aging Research - National Scientific Advisory Council (NSAC) 2008-present.
American Speech-Language Hearing Association (ASHA) Planning Committee Member for the 2011 ASHA Convention in San Diego
National Institutes of Health – Advancing health care planning meeting task force (March, 2012)

International/National Consulting/Mentoring

Mentor - NIH R03 grant to Jennifer Lister, Ph.D. University of South Florida (2004-2006)
Mentor - NIH K23 grant to Kelly Harris, Ph.D. Medical University of South Carolina (2007-2012)
Consultant - Elizabeth Leigh-Paffenroth, [National Center for Rehabilitative Auditory Research \(NCRAR\), Portland OR. \(2005-2006\)](#)
Consultant – Samantha Lewis, [National Center for Rehabilitative Auditory Research \(NCRAR\), Portland OR. \(2005-2006\)](#)
Mentor - Gregory Collet - National Fund for Scientific Research, [Université Libre de Bruxelles Belgium](#) (2009-present)
Lorna Halliday and Stuart Rosen - ESRC First Grants Competition University College London (2010 – present)
Consultant – NIH R03, Curtis Billings Ph.D., [National Center for Rehabilitative Auditory Research \(NCRAR\), Portland OR. \(2009-present\)](#)
University of Iowa – Speech Pathology and Audiology/Otolaryngology NIH P50 program project site reviewer and consultant (2010 - present).

Community

Numerous presentations to community groups (e.g., Senior Centers, Hearing Loss Association of America), (1999 – present)
National Day of Hearing Testing (May, 2000)
University Lion’s Club (2000 – present)
Undergraduate Sponsor for Sertoma Scholarship – Allison Cunningham (2000 – 2003)
Numerous media publications (e.g., Scientific America)

EDITORIAL SERVICE

Assistant Editor – Journal of the American Academy of Audiology (2000 – present)

Associate Editor – American Journal of Audiology (2002 – 2005)

Central Auditory Neuroscience Section Editor – Ear and Hearing (2005 – present)

Ad Hoc Reviewer for:

Brain Research

Experimental Brain Research

Cerebral Cortex

Clinical Neurophysiology

Journal of the Acoustical Society of America

Journal of the Association for Research in Otolaryngology

Learning and Memory

Psychophysiology

RESEARCH AWARDS (PAST FUNDED RESEARCH) (N= 16)

“Neural representation of speech in the elderly”

Principal Investigator: Tremblay

Agency: National Institutes of Health (NIH – NIA) \$50,000

Type: R03 AG18552-01

Period: 6/00 – 6/02

“Stability of behavioral and neurophysiological responses following listening training”

Principal Investigator: Tremblay

Agency: University of Washington. Royalty Research Fund. \$24,962

Period: 3/00 – 3/02

“Neural representation of native and non-native speech contrasts across the life span”

Principal Investigator: Tremblay

Co-Investigator: P. Kuhl

Agency: University of Washington. Center for Mind, Brain and Learning (CMBL). \$77,188

Period: 6/01 – 9/03

“Linking acoustic, physiological and behavioral measures: A new technique for studying hearing aid benefit”

Principal Investigators: Pamela Souza and Kelly Tremblay

Agency: University of Washington. Royalty Research Fund. \$25,763

Period: 7/02 – 7/03

“Speech-evoked cortical potentials in cochlear implant users”

Principal Investigator: Kelly Tremblay

Agency: The National Organization for Hearing Research Foundation. \$10,000

Period: 6/03 – 6/04

“Aging and the neural representation of speech: effects of hearing aid amplification and training”

Principal Investigator: Kelly Tremblay

Agency: American Federation for Aging Research. \$59,678

Period: 07/03 – 07/05

“Longitudinal changes following cochlear implantation”

Principal Investigators: Kelly Tremblay/Lendra Friesen

Agency: University of Washington Bloedel Mini-grant \$5,000

Period: 06/05 – 06/06

“Perceptual and neurophysiologic changes in CI listeners”

Mentor: Kelly Tremblay

Student: Lendra Friesen

Agency: American Academy of Audiology Student Research Award \$5,000

Period: 07/05 – 07/06

“Acoustic effects of WDRC amplification”

Principal Investigator: Pamela Souza

Agency: NIH R01 \$125,000/yr

Period: 2005-2010. Collaborator – 10% effort.

NIH/NIDCD Individual Predoctoral Fellowship (F31 DC007296), University of

Washington. Title: Hearing Aids and Auditory Evoked Potentials. Awarded to Curtis Billings. PI: Kelly Tremblay PhD

NIH/NIDCD Institutional Predoctoral Fellowship (T32 DC005361), University of

Washington. Auditory Neuroscience Training Program. Administrator Ellen Covey, Ph.D. Awarded to Curtis Billings.

NIH/NIDCD Institutional Predoctoral Fellowship (T32 DC005361), University of

Washington. Auditory Neuroscience Training Program. Administrator Ellen Covey, Ph.D. Awarded to Kathleen Faulkner.

NIH/NIDCD Institutional Predoctoral Fellowship (T32 DC00033), University of

Washington. Speech and Hearing Sciences Training Program. Administrator Lynne Werner, Ph.D. Awarded to Chris Clinard.

NIH/NIDCD Institutional Predoctoral Fellowship (F31DC010553), “Age-related Changes in Spectral Processing.” **Principal Investigator:** Chris Clinard, **Mentor:** Kelly Tremblay, PhD,

Co-mentor: A. Ravi Krishnan, PhD. (2009-2011)

NIH/NIDCD Institutional Predoctoral Fellowship (T32 DC00033), University of

Washington. Speech and Hearing Sciences Training Program. Administrator Lynne Werner, Ph.D. Awarded to Christi Miller.

“Neuroimaging studies of auditory learning”

Principal Investigator: Claude Alain

Co-Applicant: Kelly Tremblay

Agency: Canadian Institutes of Health Research (09/07-09/11) \$100,000

“Auditory training and neural plasticity in younger and older adults”

Principal Investigator: Kelly Tremblay

Agency: NIH NIDCD R01DC007705-01 \$175,000/yr

Period: 09/05 – 09/13 (NCE)

“Auditory training to improve spectral resolution in CI users”

Principal Investigator: Kelly Tremblay PhD.

Mentee: Kathleen Faulkner

Agency: NIH/NIDCD Predoctoral Fellowship (F31DC010309) (2009-2012)

“Neural representation and perception of envelope and fine structure in human.”

Principal Investigator: Kelly Tremblay PhD

Mentee: Jongho Won PhD

Agency: NIH/NIDCD Predoctoral Fellowship (1 F31 DC010297-01A1) (2012).

FUNDED RESEARCH – ONGOING (n=4)

“Electrophysiology and Auditory Training.” NIH/NIDCD Individual Predoctoral Fellowship

Principal Investigator: Kelly Tremblay PhD

Mentee: Katrina McClannahan.

Agency: NIH/NIDCD Predoctoral Fellowship (1 F30 DC010297-01A1) (2010-2013).

“Evaluation of Speech Recognition in Noise: Sound Signal Processing and the Brain”

Principal Investigator: Kelly Tremblay PhD and Jongho Won

Agency: American Hearing Research Foundation. (2012-2013)

“Linking SNR to hearing aid success”

Principal Investigator: Kelly Tremblay PhD and Ruth Bentler

Agency: NIH NIDCD 1R01DC012769 (2013-2017)

“Familial and birth cohort effects on the aging senses.”

Principal Investigator: Karen Cruickshanks PhD

Agency: NIH/NIDCD Administrative Supplement awarded to Kelly Tremblay
5R01AG021917

Pending (n = 1)

“Defining universal barriers to hearing health care”

Principal Investigator: Kelly Tremblay PhD

Agency: NIH/NIDCD (R21/R33) to be reviewed Jan 2013.

REFEREED ABSTRACTS AND PRESENTATIONS

1. Kraus N., McGee T., Carrell T., King C., **Tremblay K.** and Nicol T. Central auditory system plasticity associated with speech discrimination training. International Evoked Response Study Group, Park City, UT (1993)
2. Stein L., **Tremblay K.** and Rosenberg R. Infant hearing screening using click evoked otoacoustic emissions. American Academy of Audiology 7th Annual Convention. Dallas, TX, Abstract 205 (1995)
3. Stein L., **Tremblay K.** and Banerjee S. Issues in EOAE infant hearing screening. Otology Conference. Breckenridge, CO (1995)
4. Stein L., **Tremblay K.** and Rosenberg R. Infant hearing screening using click evoked emissions (OAE). Illinois Speech and Hearing Association, Chicago, IL (1995)
5. **Tremblay K.**, Kraus N., Carrell T., McGee T., Koch D. and Nicol T. Neurophysiologic correlates of transfer of learning. Association of Research in Otolaryngology, St. Petersburg Beach, FL, Abstract 183 (1995)
6. Stein L.K., **Tremblay K.**, Pasternak J., Banerjee S., Lindemann K. and Kraus N. Brainstem abnormalities in neonates with normal otoacoustic emissions. National Symposium on Hearing in Infants. Vail, CO (1995)
7. Stein L.K., **Tremblay K.**, Pasternak J., Banerjee S., Lindemann K. and Kraus N. Auditory brainstem neuropathy and elevated bilirubin levels. International Evoked Response Audiometry Study Group. Lyon, France (1995)
8. Koch D., Carrell T., **Tremblay K.**, and Kraus N. Identification and discrimination of natural and acoustically impoverished synthetic syllables by normal listeners and cochlear-implant users. Conference on Implantable Auditory Prostheses, Pacific Grove, CA (1995)
9. **Tremblay K.**, Kraus N., Carrell T., McGee T., Koch D. and Nicol T. Central auditory system plasticity: Generalization to novel stimuli following listening training. International Evoked Response Study Group. Lyon, France (1995)
10. Kraus N., McGee T., Carrell T., Zecker S., Sharma A., **Tremblay K.** and Nicol T. Listening, learning and the brain project. International Evoked Response Audiometry Study Group. Lyon, France (1995)
11. Koch D., Carrell T., **Tremblay K.**, and Kraus N. Perception of synthetic syllables by cochlear-implant users: Relation to other measures of speech perception. Association for Research in Otolaryngology, St. Petersburg Beach, FL, Abstract 428 (1996)
12. Carrell T., Koch D., **Tremblay K.** and Kraus N. Broad-phonetic categorization of speech in cochlear-implant users. J. Acoust. Soc. Am, Abstract. 100:4, 2692 (1996)
13. Stein L.K. and **Tremblay K.** Instructional Session: Infant hearing screening in the ISCU. American Academy of Audiology. Salt Lake City, UT (1996)
14. Koch D., **Tremblay K.**, Dunn I., Dinces E., Carrell T. and Kraus N. Speech-evoked N1 and mismatch neurophysiologic responses in cochlear-implant users and normal listeners. Association for Research in Otolaryngology, St. Petersburg Beach, FL, Abstract 320 (1997)
15. Stein L.K. and **Tremblay K.** Instructional Session: Screening in the special care nursery using OAE and ABR. American Academy of Audiology. Ft. Lauderdale, FL (1997)
16. **Tremblay K.**, Kraus N., McGee T. and Zecker S. The time course of learning:

- Neurophysiologic changes during speech training. 16th Congress on Acoustics and 135th Meeting of Acoustical Society of America, Seattle, WA (1998)
17. Stein L.K., McGee T., Pasternak J., **Tremblay K.** and Kraus N. NICU Graduates with evidence of auditory neuropathy. National conference on auditory neuropathy. Lake Arrowhead, CA (1998)
 18. Dinces E.A., **Tremblay K.L.**, Koch D.B. and Kraus N. Neurophysiological encoding of speech in an 8 year old post-lingually deafened cochlear implant user: Comparison to normal children. Association for Research in Otolaryngology, St. Petersburg, FL, Abstract 275 (1998)
 19. McGee T., King C., Nicol T., **Tremblay K.**, Cunningham J., Allen J. and Kraus N. Long-term habituation of the speech-elicited mismatch negativity. Association for Research in Otolaryngology, St. Petersburg Beach, FL, Abstract 167 (1999)
 20. **Tremblay K.**, Kraus N., McGee T. and Otis B. Central Auditory Plasticity: Changes in the N1-P2 complex following speech-sound training. Association for Research in Otolaryngology, St. Petersburg Beach, FL, Abstract 303 (2000)
 21. Souza P., **Tremblay K.** and Boike K. Age-related changes in downward spread of masking as a function of masker frequency and level. Association for Research in Otolaryngology, St. Petersburg Beach, FL, Abstract 530 (2000)
 22. **Tremblay K.**, Kraus N. and McGee T. Changes in the N1-P2 complex following speech-sound training. American Auditory Society, Scottsdale, AZ (2000)
 23. **Tremblay K.** & Billings C. "Hearing Loss and Aging." Hamilton House, Seattle, WA (2000).
 24. **Tremblay K.L.**, Kejriwal C. and De Nisi J. Auditory training and the N1-P2 complex. International Evoked Audiometry Response Study Group. Vancouver, Canada (2001)
 25. **Tremblay K.L.**, Piskosz M. and Billings C. The effects of aging on the neural representation of speech. International Evoked Audiometry Response Study Group. Vancouver, Canada (2001)
 26. **Tremblay K.L.**, Piskosz M. and Souza P. Aging and the neural representation of speech-cues. Association for Research in Otolaryngology, St. Petersburg Beach, FL, Abstract 951 (2002)
 27. **Tremblay K.** & Billings C. "Hearing Loss and Aging." Self Help for Hard of Hearing, Seattle Chapter at Hearthstone Community, Greenlake, WA (2002).
 28. **Tremblay K.L.**, Piskosz M. and Souza P. Aging and the neural representation of speech-cues. American Auditory Society, Scottsdale AZ (2002)
 29. **Tremblay K.L.**, Friesen L., Martin B.A., and Wright R. Test-retest reliability of the acoustic change complex using naturally-produced speech sounds. International Evoked Response Study Group, Tenerife Canary Islands, Spain.(2003)
 30. Friesen L.M. and **Tremblay K.L.** Test-retest reliability of the acoustic change complex (ACC) in adult normal hearing and cochlear implant listeners. Conference on Implantable Auditory Prostheses, Pacific Grove CA (2003)
 31. Souza P.E., **Tremblay K.L.**, Davies-Venn E., and Kalstein L. Explaining consonant errors using short-term audibility. American Academy of Audiology. Salt Lake City UT (2004)
 32. **Tremblay K.L.**, Souza P., Kalstein L., Friesen L., and Billings C. Neural representation of amplified speech cues in persons with and without hearing loss. Association for Research in Otolaryngology, Daytona Beach, FL, Abstract 1325 (2004)
 33. Billings, C., **Tremblay, K.**, & Souza, P. Neural representation of amplified speech sounds.

- NIH-sponsored student poster session at the annual American Auditory Society Meeting, Scottsdale, AZ, (March, 2004)
34. Souza P. and **Tremblay K.L.** Combining acoustic, electrophysiological and behavioral measures of hearing aids. American Auditory Society, AZ (2005)
 35. Billings, C. & **Tremblay, K.** "Effects of Age and Age-Related Hearing Loss on the Neural Representation of Speech-Cues." Featured Session at American Academy of Audiology Convention, Washington D.C. Abstract # FS202 (March-April, 2005).
 36. Billings, C., **Tremblay, K.** "Neural representation of amplified speech sounds." Auditory Neuroscience Retreat, Seattle, Washington (May, 2005).
 37. Friesen L.M., **Tremblay K.L.**, Rohila N., Wright R., Shannon R.V. and Baskent D. Speech Evoked Cortical Potentials as a Function of Cochlear Implant Channel Number. Paper presented at the Conference on Implantable Auditory Prostheses, Pacific Grove, CA, (August, 2005)
 38. Friesen L., **Tremblay K.L.**, Rohila N., Wright R., Shannon R. and Baskent D. Speech Evoked Cortical Potentials as a Function of Cochlear Implant Channel Number. Association for Research in Otolaryngology, Abstract 999. New Orleans, LA (2005)
 39. Billings C., **Tremblay K.L.** and Souza P.E. Effects of amplification and stimulus intensity on cortical auditory evoked potentials. American Auditory Society Meeting. Scottsdale, Arizona. Abstract (2006)
 40. Billings C., **Tremblay K.L.** and Souza P.E. Effects of amplification and stimulus intensity on cortical auditory evoked potentials. Association for Research in Otolaryngology Midwinter Meeting. Baltimore, Maryland. Abstract 220 (2006)
 41. Billings, C., **Tremblay, K.** "Effect of amplification and stimulus intensity on cortical auditory evoked potentials." Auditory Neuroscience Retreat. Seattle, Washington. (May 11, 2006).
 42. **Tremblay K.L.**, Picton T. and Ross B. Auditory evoked MEG responses to inter-aural phase changes: Effects of aging on response latencies. BIOMAG Conference. Vancouver, BC. Canada. (August, 2006)
 43. **Tremblay K.L.** Hearing aids and the brain. American Federation for Aging Research, Santa Barbara. California. (September, 2006)
 44. Cone-Wesson, B. **Tremblay K.L.** and Martin B. "Better late than never: Cortical auditory evoked potentials". ASHA Miami. (November, 2006)
 45. Billings, C., **Tremblay, K.** "Hearing aids & cortical auditory evoked potentials: effect of amplification, stimulus intensity, and noise." Auditory Neuroscience Retreat, Seattle, Washington (May, 2007).
 46. Faulkner, K.F., **Tremblay, K.L.**, Bierer, J.A. "Psychophysical tuning curves and electrically-evoked auditory brainstem responses with the partial tripolar electrode configuration." Conference on Implantable Auditory Prostheses, Lake Tahoe, CA (July, 2007).
 47. Billings, C., **Tremblay, K.**, & Souza P. "Cortical Auditory Evoked Potentials recorded with and without hearing aids: effects of stimulus intensity and amplification." International Evoked Audiometry Response Study Group, Bled, Slovenia (June, 2007).
 48. Friesen L. and **Tremblay, KL.** Speech evoked cortical potentials as a function of implant channel number. International Evoked Response Audiometry Group. Bled, Slovenia. (2007).
 49. Chau, W, Friesen, LM., Nie, K, **Tremblay, K.** (2007). Removing Cochlear Implant Artifact from the Electroencephalography Signals Using Noise Distribution Pattern. Paper

- presented at the Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July.
50. Faulkner, K., **Tremblay, K.L.** and Bierer J. "Psychophysical tuning curves and electrically-evoked auditory brainstem responses with the partial tripolar electrode configuration". Conference on Implantable auditory prostheses. Lake Tahoe. NV. (2007)
 51. **Tremblay, K.L.** Ross, B., and Picton T.W. Auditory training and the P1-N1-P2 complex: Age and stimulus effects. International Evoked Response Audiometry Group. Bled, Slovenia (2007)
 52. Kwon, S., Clinard, C., **Tremblay, K.**, Won, J.H., Drennan, W., Kim, I.Y., Rubinstein, J. "Behavioral and physiological discrimination of spectral-ripple stimuli." Poster presentation at the Northwest Auditory Meeting, Portland, OR (October, 2007).
 53. Won, J. H., Kwon, S., Clinard, C., Drennan, W., Daskika, V., **Tremblay, K.**, Rubinstein, J. "A new approach for measuring spectral-ripple discrimination." Association for Research in Otolaryngology, Arizona. (2008)
 54. Won, J.H., Kwon, S., Clinard, C., Drennan, W.R., Dasika, V., **Tremblay, K.L.**, Rubinstein, J. "New method for discrimination of spectral-ripple stimuli." Poster presentation at Association for Research in Otolaryngology MidWinter Meeting, Phoenix, AZ (February, 2008).
 55. Clinard, C., Kwon, S., Won, J.H., Drennan, W.R., **Tremblay, K.**, Rubinstein, J.T." Spectral-ripple discrimination thresholds: relation of behavioral and physiological measures." NIH-sponsored student poster presentation at the American Auditory Society Meeting, Scottsdale, AZ (March 2008).
 56. McClannahan, K., Inoue, K., **Tremblay, K.** "Effects of intervening behavioral tasks on the P2 potential." Poster presentation at American Auditory Society meeting, Scottsdale, AZ (March 2008)
 57. Tolin, W., Billings, C., **Tremblay, K.** "Effect of tone level and signal-to-noise ratio on neural responses." Poster presentation at the University of Washington Undergraduate Research Symposium, Seattle, Washington (May, 2008).
 58. Ross, B., **Tremblay, K.** "The time course of amplitude changes for N1m and P2m: effects of age and stimulus type. International Conference on Biomagnetism Sapporo Japan (August 2008).
 59. Bierer, J.A., Faulkner, K.F., **Tremblay, K.L.** "Probing the cochlear with partial-tripolar stimulation: The feasibility of electrically-evoked auditory brainstem measures." Assoc. for Res. In Otolaryngol., Baltimore, M.D (February, 2009).
 60. Faulkner, K.F., **Tremblay, K.L.**, Bierer, J.A. "Electrically-evoked auditory brainstem responses with the partial-tripolar configuration." American Auditory Society, Tempe, AZ (March, 2009).
 61. Billings, C., **Tremblay, K.**, & Stecker, G.C. "Signal-in-noise encoding and implications for people with hearing loss." Podium presentation at the annual American Auditory Society Meeting, Scottsdale, Arizona (March, 2009).
 62. Bierer, J.A., Faulkner, K.F., **Tremblay, K.L.** "Identifying low-functioning cochlear implant channels: Implications for cochlear implant fitting in adults and children." 12th Symposium on Cochlear Implants in Children, Seattle, W.A (June, 2009).
 63. Clinard, C., **Tremblay, K.**, Krishnan, A. "Effects of age on the perception and neural representation of frequency." Poster presentation at the International Evoked Response Audiometry Study Group Meeting, Rio de Janeiro, Brazil. (June, 2009).
 64. Bierer, J.A., Faulkner, K.F., **Tremblay, K.L.**, Nye, A.T., Bierer, S.M., Goldwyn, J.G.,

- Middlebrooks, J.C. "Identifying impaired cochlear implant channels by using the partial-tripolar electrode configuration: Implications for cochlear implant fittings. Conference on Implantable Auditory Prostheses, Lake Tahoe, CA (July, 2009).
65. McClannahan, K., Inoue, K., **Tremblay, K.L.** "Effects of repeated stimulus exposure and focused listening tasks on the auditory evoked P2 potential." Poster presentation at The 4th International National Center for Rehabilitative Auditory Research (NCRAR) Conference. Portland, OR. (October 2009).
 66. Clinard, C., **Tremblay, K.L.**, and Krishnan, A. "Effects of age on perception and neural representation of frequency." Poster presentation at the Aging and Speech Communication: An International and Interdisciplinary Research Conference, Bloomington, IN (October 2009).
 66. Clinard, C., **Tremblay, K.L.**, "Aging alters the neural representation of simple and complex sounds: Evidence from human FFR recordings". Association for Research in Otolaryngology (Feb., 2010)
 67. Faulkner, K.F., **Tremblay, K.L.**, Rubinstein, J.T., Werner, L.A., Nie, K. Auditory Training in Adult Cochlear Implant Listeners using Spectrally-Rippled Noise Stimuli in an Adaptive, Single-Interval Paradigm. Association for Research in Otolaryngology (February 2010).
 68. Clinard, C., **Tremblay, K.L.**, Aging Alters Subcortical Neural Representation of Simple and Complex Sounds. American Auditory Society, Scottsdale AZ. (March, 2010).
 69. Li, X, Nie K., Karp F, **Tremblay K.L.**, Rubinstein K. Characteristics of Stimulus Artifacts in EEG Recordings Induced by Electrical Stimulation of Cochlear Implants. 3rd International Conference on BioMedical Engineering and Informatics, Yantai, China (October, 2010).
 70. Tremblay, K.L., McClannahan, K., Inoue, K., Ross, B., and Collet, G. "Auditory training: Stimulus exposure, task execution, and response feedback affect the neural detection of sound." Acoustical Society of America, Seattle.WA. (May 2011).
 71. DeFrancisci, C., Won, J.H., Tremblay, K.L., Wright, R. Native language experience influences the perception of envelope and temporal fine structure cues. Acoustical Society of America, Seattle. WA. (May 2011).

INVITED PRESENTATIONS

1. Otis B. and **Tremblay K.** University of Washington Undergraduate Research Program Poster Presentation. "The time course of auditory perceptual learning." Seattle, WA (1999)
2. **Tremblay K.** "Changes in the brain while learning new sounds." Invited presentation to the University Lions Club, Seattle, WA (2000)
3. **Tremblay K.** "Neurophysiologic correlates of speech-sound perception and listening training." Canadian Academy of Audiology. Toronto, Canada (2000)
4. **Tremblay K.** "Hearing loss and aging." Self Help for the Hard of Hearing. Seattle, University Chapter (Hamilton House) (2001)
5. **Tremblay K.** "Hearing loss and aging." Self Help for the Hard of Hearing. Seattle Chapter (Hearthstone) (2001)
6. **Tremblay K.** Research Session: Clinical Research in Audiology, 14th Annual American Academy of Audiology Convention. Philadelphia, PA (2002)
7. **Tremblay K.** "Physiological assessment of central auditory disorders." American Speech-

- Language Hearing Association Convention. Atlanta, GA (2002)
8. **Tremblay K.** "Hearing loss and Aging." Self Help for the Hard of Hearing. Seattle Chapter (Hearthstone) (2002)
 9. Rohila N. and **Tremblay K.** "The effects of age on the neural representation of simple and complex stimuli." University of Washington Undergraduate Research Program Poster Presentation. Seattle, WA (2002)
 10. Cunningham A. and **Tremblay K.** "Consonant confusions and their neural response patterns: A case study." University of Washington Undergraduate Research Program Poster Presentation. Seattle, WA (2003)
 11. **Tremblay K.** "Auditory training: Implications for aural rehabilitation." 15th American Academy of Audiology Convention. San Antonio, TX. Featured Speaker (2003)
 12. **Tremblay K.** "Aging alters the neural representation of speech sounds." The Smith-Kettlewell Research Institute. San Francisco, CA (2003)
 13. **Tremblay K.** "Effects of age and age-related hearing loss on the neural representation of speech-cues." International Congress of Clinical Neurophysiology, San Francisco, CA (2003)
 14. **Tremblay K.** "Neural representation of acoustic cues: Implications for auditory rehabilitation." Canadian Academy of Audiology, Vancouver, Canada (2003)
 15. Merzenich M. and **Tremblay K.** "Implications of plasticity of the neural system for auditory rehabilitation: a multidisciplinary approach to aural rehabilitation." National Center for Rehabilitative Auditory Research (NCRAR), Portland, OR (October 2003)
 16. **Tremblay K.** "Electrophysiological perspectives on rehabilitation." American Academy of Audiology, Salt Lake City, UT. Featured Speaker (2004)
 17. **Tremblay K.L.** "Alternative Perspectives on Rehabilitation." American Speech-Language Hearing Association, Philadelphia, PA. Invited Speaker (2004)
 18. **Tremblay K.L.** "Physiological Perspectives on Rehabilitation." State University at Buffalo, Buffalo, NY. Invited Speaker (2004)
 19. **Tremblay K.L.**, Gordon-Salant, S. and Wingfield, A. "Hearing and Cognitive Changes in Aging Adults." American Academy of Audiology Conference, Washington, DC. Featured speaker (2005)
 20. **Tremblay, K.L.** "What Happens to Our Ears as We Age." Ears, Hearing & Beyond. Virginia Merrill Bloedel Hearing Research Center, University of Washington (2005)
 21. **Tremblay, K.L.** "Effects of Aging and Hearing Loss on the Neural Representation of Speech Cues." Aging and Speech Communication: An International and Interdisciplinary Conference. Indiana University, Bloomington, IN (October, 2005)
 22. **Tremblay, K.L.** "Effects of Aging and Hearing Loss on the Neural Representation of Speech Cues." Northwestern University, Evanston, IL (October, 2005)
 23. **Tremblay, K.L.** "Effects of Auditory Training on Speech Evoked Cortical Potentials." Rotman Research Institute, Toronto, Ontario, Canada (October, 2005)
 24. Billings, C., **Tremblay, K.**, & Souza P. "Aided evoked potentials: effects of amplification and stimulus intensity." Talk, Rotman Research Institute. Toronto, Ontario, Canada (2006).
 25. **Tremblay, K.L.** "Effects of Hearing Loss and Electrical Stimulation on the Central Auditory System." University of Toronto (Mississauga Campus), Ontario, Canada (March, 2006)
 26. **Tremblay, K.L.** "Effects of Auditory Deprivation and Stimulation on the Central Auditory System." University of Toronto (Mississauga Campus), Ontario, Canada (March, 2006)
 27. **Tremblay, K.L.** "Effects of Aging and Hearing Loss on the Brain" Northwestern University,

- Evanston IL (November, 2006)
28. **Tremblay, K.L.** Acoustic Information and Learning in the Adult Auditory System: Implications for Auditory Rehabilitation. Chicago, IL (November, 2006)
 29. **Tremblay, K.L.** Hearing aids and the brain: What's the connection? National Center for Rehabilitative Audiology, Portland, OR. (January, 2007)
 30. **Tremblay, K.L.**, Auditory training. International Congress on Rehabilitative Audiology. Leuven, Belgium. (June, 2007).
 31. **Tremblay, K.L.** and Alain C. Age-related changes affecting temporal processing: Evidence from event-related potentials. Aging and Speech Communication: An international and interdisciplinary conference. Indiana University. (October, 2007).
 32. **Tremblay, K.L.** Auditory training and the P2 response. Rotman Research Institute, Toronto, Canada (December, 2007).
 33. **Tremblay, K.L.**, The auditory brain. The British Society of Audiology. Nottingham, England. (September, 2008).
 34. **Tremblay, K.** and Brown C. "Assessing outcomes of amplification using cortical evoked potentials". American Speech Language Hearing Association (ASHA). (November, 2008).
 35. **Tremblay K.L.** "Hearing aids and the brain: What's the connection" Washington State Audiology Association (May 2009) Seattle, WA.
 36. **Tremblay K.L.** "Hearing aids and the brain: What's the connection" Unitron Educational Series (May 2009) Seattle, WA.
 37. **Tremblay K.L.** "Neuroplasticity of the Auditory System" International Symposium on Cochlear Implants In Children" (June 2009) Seattle, WA.
 38. **Tremblay K.L.** "The aging BRAIN and its contribution to hearing impairment" Virginia Merrill Bloedel Hearing Research Center Board of Trustees (June 2009) Seattle, WA.
 39. **Tremblay K.L.** and Billings, C. "Aided evoked potentials and implications for auditory training in hearing aid users." Invited presentation, Nordic Audiology College: Scientific Seminar about Hearing. Strömstad, Sweden. (2009).
 40. **Tremblay K.L.** "Diagnostic Grand Rounds" American Academy of Audiology. San Diego, CA (April 2010)
 41. **Tremblay K.L.** and Billings C. "NeuroAudiology: How cortical evoked potentials can be used in the clinic" American Academy of Audiology. San Diego, CA (April 2010)
 42. **Tremblay K.L.** "Effects of hearing prostheses on auditory evoked potentials" Objective measures in auditory implants. 6th International Symposium. (Sept. 2010) St. Louis MO
 43. **Tremblay K.L.** and Ross B. "Aging and auditory training" International Conference on Aging and Cognition" (October 2010) Dortmund, Germany.
 44. **Tremblay K.L.** "Hearing aids and the brain: What's the connection?" Northwest auditory meeting, University of Washington, Seattle. WA. (Oct. 2010).
 45. **Tremblay K.L.** and Pichora-Fuller, K. "Rehabilitating older ears and older brains" American Academy of Audiology, Chicago, Ill. (May, 2011).

KEYNOTE/ ADDRESSES

1. **Tremblay K.L.** "Effects of aging and hearing loss on the brain". ASHA Convention. NIH Sponsored Keynote Session on Development and Plasticity of the Auditory System, Miami Florida. (Nov. 2006).
2. **Tremblay K.L.** "Relearning to hear with your brain". International Congress for the Hard of

- Hearing, Vancouver B.C. (July, 2008).
3. **Tremblay K.L.** Keynote “Auditory Training: From the laboratory to the Clinic.” British Society of Audiology. Nottingham England (September, 2008).
 4. **Tremblay K.L.** “Aging and clinical electrophysiology” National Institutes of Health ARC Symposium: American Academy of Audiology. San Diego, CA (April 2010)
 5. **Tremblay K.L.** and Billings C. “Hearing aids and the brain: What’s the connection?” Cairo, Egypt (Jan. 2011).
 6. **Tremblay K.L.** Rehabilitating older ears and older brains. American Auditory Society. Scottsdale AZ. (March, 2011).
 7. **Tremblay K.L.** “Auditory training in aging adults” 1st International Conference on Cognitive Hearing Science for Communication, Linköping, Sweden, (June, 2011).
 8. **Tremblay K.L.** New Ideas in Audiology. Paris, France. (April, 2012).

PUBLICATIONS

PEER REVIEWED JOURNAL PUBLICATIONS

1. Kraus N., McGee T., Carrell T., King C., **Tremblay K.** and Nicol T. Central auditory system plasticity associated with speech discrimination training. *Journal of Cognitive Neuroscience*. 7(1):25-32 (1995)
2. Stein L.K., **Tremblay K.**, Pasternak J., Banerjee S., Lindemann K. and Kraus N. Brainstem abnormalities in neonates with normal otoacoustic emissions. *Seminars in Hearing*. 17(2): 197-213 (1996)
3. **Tremblay K.**, Kraus N., Carrell T. and McGee T. Central auditory system plasticity: generalization to novel stimuli following listening training. *Journal of the Acoustical Society of America*. 102(6):3762-3773 (1997)
4. **Tremblay K.**, Kraus N., and McGee T. The time course of auditory perceptual learning: neurophysiologic changes during speech sound training. *NeuroReport*. 9(16):3557-3560 (1998)
5. McGee T., King C., Nicol T., **Tremblay K.**, Cunningham J., Allen J. and Kraus N. Long-term habituation of the speech-elicited mismatch negativity. *Psychophysiology*. 38(4):653-8 (2001)
6. **Tremblay K.**, Kraus N., McGee T., Ponton C. and Otis B. Central auditory plasticity: changes in the N1-P2 complex following speech-sound training. *Ear and Hearing*. 22(2):79-90 (2001)
7. Ponton C., Vasama J., **Tremblay K.**, Khosla D., Kwong B. and Don M. Plasticity in the adult human central auditory system: evidence from late-onset profound unilateral deafness. *Hearing Research*. 154(1-2):32-44 (2001)
8. **Tremblay K.L.** and Kraus N. Auditory training induces asymmetrical changes in cortical neural activity. *Journal of Speech-Language-Hearing Research*. 45(3):564-72 (2002)

9. **Tremblay K.L.**, Piskosz, M. and Souza, P. Aging alters the neural representation of speech-cues. *NeuroReport*. 13(15):1865-1870 (2002)
10. **Tremblay K.L.**, Friesen L., Martin B.A. and Wright R. Test-retest reliability of cortical evoked potentials using naturally produced speech sounds. *Ear and Hearing*. 24(3):225-32 (2003)
11. **Tremblay K.L.**, Piskosz M. and Souza P. Effects of age and age-related hearing loss on the neural representation of speech cues. *Clinical Neurophysiology*. 114(7):1332-43 (2003)
12. Souza P.E., **Tremblay K.L.** and Boike K. Effects of decreased audibility produced by high pass maskers in younger and older adults. *Journal of the American Academy of Audiology*. 14(8):427-33 (2003)
13. **Tremblay K.L.**, Billings C.J. and Rohila N. Speech evoked cortical potentials: effects of age and stimulus presentation rate. *Journal of the American Academy of Audiology*. 15(3):226-37 (2004)
14. **Tremblay K.L.**, Billings C.J., Friesen L.M. and Souza P.E. Neural representation of amplified speech sounds. *Ear and Hearing*. 27(2):93-103 (2006)
15. Friesen L.M. and **Tremblay K.L.** Acoustic change complexes (ACC) recorded in adult cochlear implant listeners. *Ear and Hearing*. 27(6):678-85 (2006)
16. Souza P.E., Boike K., Witherell K. and **Tremblay K.L.** Prediction of speech recognition from audibility in older listeners with hearing loss: Effects of age, amplification, and background noise. *Journal of the American Academy of Audiology*. 18(1):54-65 (2007)
17. Billings C.J., **Tremblay K.L.**, Souza P.E. and Binns M.A. Effects of hearing aid amplification and stimulus intensity on cortical auditory evoked potentials. *Audiology & Neuro-otology*. 12(4):234-246 (2007)
18. Ross B., **Tremblay K.L.** and Picton T.W. Physiological detection of interaural phase differences. *The Journal of the Acoustical Society of America*. 121(2):1017-27 (2007).
19. Ross B., **Tremblay K.L.**, Picton T.W., Aging in binaural hearing begins in mid-life: evidence from cortical auditory-evoked responses to changes in interaural phase. *J. Neurosci*. 27: 11172-11178 (2007).
20. Martin B.M., **Tremblay K.L.** and Korczak P. Speech evoked potentials: From the laboratory to the clinic. *Ear and Hearing*. Ear Hear. Jun;29(3):285-313 (2008)
21. Friesen L.M., **Tremblay K.L.**, Rohila N., Wright R.A., Shannon R.A. and Rubinstein J. Evoked cortical activity and speech recognition as a function of cochlear implant channel number. *Audiology and Neurotology*. (2009)
22. Ross B. and **Tremblay K.L.** Stimulus experience modifies auditory neuromagnetic responses in younger and older listeners. *Hearing Research*, 248 (1-2):48-59. (2009).
23. Billings C.J., **Tremblay K.L.**, Stecker G.C., Tolin W.M. Human evoked cortical activity to signal-to-noise ratio and absolute signal level. *Hearing Research*, 254(1-2): 15-24 (2009).
24. Alain, C., Campeanu, S., and **Tremblay, K.L.** Changes in sensory evoked responses coincide with rapid improvement in speech identification performance. *Journal of Cognitive Neuroscience*. J Cogn Neurosci. 2010 Feb;22(2):392-403.(2010).
25. **Tremblay, K.L.**, Shahin T., Picton T, Ross B. Auditory training alters the detection of stimulus specific acoustic cues. *Journal of Clinical Neurophysiology*. 120(1):128-35 (2009).
26. **Tremblay, K.L.**, Inoue, K., McClannahan, K., & Ross, B. Repeated stimulus exposure alters the way sound is encoded in the human brain. *PLoS ONE*, 5(4), (2010).

27. Won, J.H., Clinard, C.G., Kwon, S.Y., Dasika, V.K., Drennan, W., **Tremblay, K.L.**, Rubinstein, J.T. Single-interval spectral-ripple discrimination: preliminary behavioral and physiologic data. *JARO*, Jun;12(3):375-93. (2011).
28. Bierer, J.A., Faulkner, K.F. and **Tremblay, K.L.** Partial-tripolar electrically-evoked auditory brainstem responses can be used to identify channels with a poor interface to nearby neurons in cochlear implants listeners. *Ear and Hearing*. Jul-Aug;32(4):436-44.(2011).
29. Boaz M. B., Campeanu S. **Tremblay, K. L.** and Alain, C. Auditory evoked potentials dissociate rapid perceptual learning from task repetition without learning. *Psychophysiology*, Psychophysiology. 2011 Jun;48(6):797-807. (2011).
30. Billings, C. and **Tremblay, K.L.** Aided cortical auditory evoked potentials in response to changes in hearing aid gain. *International Journal of Audiology*, July 50 (7), 459-467.(2011)
31. Li, X, Nie K., Karp F, **Tremblay K.L.**, Rubinstein K. Characteristics of Stimulus Artifacts in EEG Recordings Induced by Electrical Stimulation of Cochlear Implants. 3rd International Conference on BioMedical Engineering and Informatics, IEEE Proceedings. China. (2011)

INVITED PEER REVIEWED JOURNAL PUBLICATIONS

1. **Tremblay K.L.** and Kraus N. Beyond the ear: central auditory plasticity. *Otorhinolaryngologia*. 52(3):93-100 (2002).
2. Friesen L. and **Tremblay K.L.** Electrophysiologic measures of speech, language and hearing. In: *Perspectives on Neurophysiology and Neurogenic Speech and Language Disorders*. American Speech-Language-Hearing Association, 13(1):3-10 (2003).
3. **Tremblay K.L.** Beyond the ear: Physiological perspectives on auditory rehabilitation. *Seminars in Hearing*. 26:127-136 (2005).
4. Merzenich M., Pandya P. and **Tremblay K.L.** [Roundtable discussion: plasticity and auditory training](#). *Seminars in Hearing*. 144-149 (2005).
5. Souza P.E. and **Tremblay K.L.** New perspectives on assessing amplification effects. *Trends in Amplification*. 10(3):119-43 (2006).
6. Caldwell M.L., Souza P.E. and **Tremblay K.L.** Effects of probe microphone placement on the measurement of speech in the external ear canal. *Trends in Amplification*. 10(3):145-54 (2006).
7. **Tremblay K.L.**, Kalstein L., Billings C. and Souza P.E. The neural representation of consonant vowel transitions in adults who wear hearing aids. *Trends in Amplification*. 10(3):155-62 (2006).
8. **Tremblay K.L.** and Ross B. Effects of aging and hearing loss on the brain. Special Issue: "Issues of Development and Plasticity of the Auditory System". *Journal of Communication Disorders*. 40:305-312 (2007).
9. **Tremblay K.L.** Training-related changes in the brain: Evidence from human auditory evoked potentials. *Seminars in Hearing*. 28(2):120-132 (2007).
10. Alain C, **Tremblay K.** The role of event-related brain potentials in assessing central auditory processing. *J Am Acad Audiol*. 18(7):573-89 (2007).
11. Martin B.M., **Tremblay K.L.** and Korczak P. Speech evoked potentials: From the laboratory to the clinic. *Ear and Hearing*. 29(3):285-313 (2009).

12. Clinard, C., **Tremblay, K.L.**, and Krishnan, A.R. Aging alters the perception and physiological representation of frequency: Evidence from human FFR recordings. *Hearing Research*. Jun 1;264(1-2):48-55 (2010).

INVITED NON-PEER REVIEWED PUBLICATIONS

1. **Tremblay K.** and Cunningham L. "Suicide prevention for hair cells?" *Audiology Today*, July/Aug p.10 (2000).
2. **Tremblay K.** and Cunningham L. "In search of deafness genes." *Audiology Today*, Sept/Oct p.20 (2000).
3. **Tremblay K.** and Cunningham L. "The ABR: Alive and well for acoustic tumor detection." *Audiology Today*, Nov/Dec p.38 (2000).
4. **Tremblay K.** and Cunningham L. "Infants can't separate the trees from the forest." *Audiology Today*, Jan/Feb p.38 (2001).
5. **Tremblay K.** and Cunningham L. "Hair cell regeneration." *Audiology Today*, Mar/Apr p.37 (2001).
6. **Tremblay K.** and Cunningham L. "Cochlear implants: A topic of debate." *Audiology Today*, May/June p.14 (2001).
7. **Tremblay K.** and Cunningham L. "Of mice & men: Genetics of age-related hearing loss." *Audiology Today*, Sept/Oct. p.15 (2001).
8. **Tremblay K.** and Cunningham L. "Noise induced hearing loss – Prevention in a pill." *Audiology Today*, Nov/Dec p.37 (2001).
9. **Tremblay, K.**, Friesen, L.M., and Cunningham, L. Can the presence of noise improve hearing?, In *Audiology Today*, July/August (2002).
10. **Tremblay, K.**, Friesen, L.M., and Cunningham, L. Auditory brainstem implants. In *Audiology Today*, November/December (2002).
11. **Tremblay K.** and Cunningham L. "How does hearing loss affect the brain." *Audiology Today*, Jan./Feb. p.33 (2002).
12. **Tremblay K.** and Cunningham L. "Beyond the ear – Central auditory plasticity." *Audiology Today*, Mar/April p.49 (2002).
13. **Tremblay K.** and Cunningham L. "Can the presence of noise improve hearing?" *Audiology Today*, July/Aug. p.39 (2002).
14. **Tremblay K.L.** "Central auditory plasticity: Implications for auditory rehabilitation." *The Hearing Journal*, 56:1, pp.10-17 (2003).
15. Friesen, L.M., and **Tremblay, K.L.** Electrophysiological Measures of Hearing, Speech, and Language. In S. Raymer (Ed.) *ASHA: Perspectives on Neurophysiology and Neurogenic Speech and Language Disorders*, 13(1), pp. 3-10.
16. **Tremblay K.L.** "Plasticity of the auditory system." *Advance Magazine*, June 20, Vol. 15. No. 25. (2005).
17. Faulkner, K., Friesen, L., **Tremblay, K.** A neural perspective on cochlear implants. *Audiology Today*, 18:5 Sept/Oct. p.46 (2006).
18. Billings, C. J., & **Tremblay, K. L.** Hearing aids and the brain: What's the connection? *The ASHA Leader*, 12(7), 5, 23 (2007).
19. Faulkner, K., **Tremblay, K.** Is it possible to improve binaural hearing? *Audiology Today*, 19:1 Jan/Feb. p.53 (2007).
20. Faulkner, K., **Tremblay, K.** Babies Beware: Noise exposure might affect your hearing later

in life. *Audiology Today*. 19:4 May/June. p.53 (2007).

21. Faulkner, K., Clinard, C., **Tremblay, K.** A goldilocks perspective on auditory training: How much is just right? *Audiology Today*, 19:5 Sept/Oct. p.31 (2007).
22. **Tremblay, K.** & Ross, B. Auditory rehabilitation and the aging brain. *The ASHA Leader* 12(16), 12-13 (2007).
23. Clinard, C. and **Tremblay, K.** Can ripples predict speech understanding in listeners who wear cochlear implants?" *Audiology Today*, Jan/Feb 20(1). (2008).
24. Clinard, C. and **Tremblay, K.L.** Auditory Training. What improves perception and how? *Audiology Today*, Nov/Dec. 20(6). (2008).
25. Clinard, C. and **Tremblay, K.L.** Enlarged Cortical Maps Don't Always Improve Perception. *Audiology Today*, May/June 20(3). (2008).
26. Clinard, C. and **Tremblay, K.L.** From the top: Efferent activity changes with auditory training. *Audiology Today*, September/October 21(5). (2009).
27. Clinard, C. and **Tremblay, K.L.** Babies Beware II: Noise exposure might affect spiral ganglion cells later in life. *Audiology Today*, March/April 21(2). (2009).
28. **Tremblay, K.L.** "How long does it take for your brain to realize you're wearing a hearing aid." *Ask the Brains: Scientific American Mind*. (Jan. 2011).

INVITED PEER REVIEWED BOOK CHAPTERS

1. **Tremblay K.L.** Acoustic Information and Learning in the Adult Auditory System: Implications for Auditory Rehabilitation. In: *Hearing Care for Adults 2006, Proceedings of the First International Adult Conference*. Editors: C. Palmer and R. Seewald. Phonak AG (2006).
2. **Tremblay K.L.** and Burkard R. Aging and Auditory Evoked Potentials. In: *Auditory Evoked Potentials: Scientific Bases to Clinical Application*. Editors: R. Burkard, M. Don and J. Eggermont. Lippincott Williams & Wilkins (2007).
3. Martin B., **Tremblay K.L.** & Stapells D. Principles and Applications of Cortical Evoked Potentials. In: *Auditory Evoked Potentials: Scientific Bases to Clinical Application*. Editors: R. Burkard, M. Don and J. Eggermont. Lippincott Williams & Wilkins (2007).
4. Ison J, **Tremblay K.L.** and Allen P - Links Between Animal Models of Age-related Hearing Loss and Human Presbycusis. In: Popper and Fay. *The Aging Auditory System: Springer Handbook of Auditory Research*. (2009).
5. **Tremblay, K.L.**, Moore, D. Current Issues in Auditory Plasticity and Auditory Training. In: *Translational Perspectives in Hearing Science*. (2012).
6. Billings C. **Tremblay, K.L.** Willott J. The Aging Auditory System. In: *Translational Perspectives in Auditory Neuroscience*. (2012).

BOOKS

1. **Tremblay K.L.** and Burkard R. *Translational Perspectives in Auditory Neuroscience. Normal Aspects of Hearing.* Plural Publishing (2012).
2. **Tremblay K.L.** and Burkard R. *Translational Perspectives in Auditory Neuroscience, Hearing Across the Life Span – Assessment and Disorders.* Plural Publishing (2012).
3. **Tremblay K.L.** and Burkard R. *Translational Perspectives in Auditory Neuroscience, Special Topics.* Plural Publishing (2012).

Curriculum Vitae

Name: Lynne Ann Werner (Formerly Lynne Werner Olsho)
Academic Rank: Professor
Department of Speech and Hearing Sciences
Date of Birth: June 28, 1951

EDUCATIONAL BACKGROUND

Institution	Degree	Date
Loyola University of Chicago	Ph.D.	1980
Loyola University of Chicago	M.A.	1978
Northwestern University	B.A.	1973

Ph.D. DISSERTATION TITLE

“Auditory frequency analysis in infancy”

EMPLOYMENT RECORD

Institution	Position	Dates
Department of Speech and Hearing Sciences Department of Otolaryngology - Head and Neck Surgery (Adjunct) <i>University of Washington</i>	Professor Associate Professor Associate Professor (WOT) Research Associate Professor Research Assistant Professor	1999- 1995-1999 1992-1995 1992 1990-1992
Department of Otolaryngology - Head and Neck Surgery Department of Speech and Hearing Sciences (Adjunct) <i>University of Washington</i>	Research Assistant Professor	1986-1990
Department of Otolaryngology – Head and Neck Surgery Department of Speech and Hearing Sciences <i>University of Virginia</i>	Research Assistant Professor	1984-1986
Department of Psychology <i>Virginia Commonwealth University</i>	Assistant Professor	1979-1984
Department of Psychology <i>University of Loyola at Chicago</i>	Instructor and Research Assistant	1975-1979

TEACHING EXPERIENCE

Courses Taught During Last Three Years

Quarters	Course number	Course title	Number of students	Credit hours
Spring 2010-2012	SPHSC 461	Introduction to Hearing Science	70-85	5
Winter 2009, 2011	SPHSC 462	Hearing Development	12-20	3
Winter 2011-2013	SPHSC 504	Research Methods	12-20	3
Autumn 2012	SPHSC 509	Advanced Hearing Science	12	3
Various annually	SPHSC 568	Grant Writing for the Speech and Hearing Sciences	5-10	3

RESEARCH GRANTS AND CONTRACTS

Current

Principal Investigator, NIH Grant No. R01 DC00396; "Development of Frequency Resolution in Infancy;" December 1, 1987 - June 30, 2017; Current year budget \$212,500 direct costs.

Core Director; NIH grant no. P30 DC04661 (E. W Rubel, Program Director); "Hearing Research Core, Core A: Human Subjects Recruitment Core;" July 1, 2000 - June 30, 2015; Current year budget \$75,182.

Principal Investigator, Royalty Research Fund, "Development of a bias-free measure of infants; auditory sensitivity;" March 2013-February 2014.

Completed

Principal Investigator, Bloedel Mini-grant, "Perceptual constancy for vowels in infants with cochlear implants;" January 1, 2009 - December 31, 2009, \$5000.

Principal investigator, CMBL award, "Longitudinal Language Study;" April 1, 2001 - June 30, 2003; Current year budget \$71,047

Principal investigator, Royalty Research Foundation, "The role of audition in infants' attention to infant-directed speech;" April 1, 2002 - May 31, 2003. Budget \$22,134.

RESEARCH GRANTS AND CONTRACTS - completed (continued)

Co-investigator, Deafness Research Foundation; “Physiological and psychoacoustic measures of hearing development in Down syndrome” (R. Folsom, Principal Investigator). January 1, 2000 – December 31, 2000. Annual budget \$25,000.

Co-investigator, National Organization for Hearing Research; “Tympanometry and reflectance in infants and children with Down syndrome” (R. Folsom, Principal Investigator). February 1, 2000 – January 31, 2000. Annual budget \$10,000.

Principal Investigator, NIH Grant No. P01 DC00520; "Psychoacoustic, Evoked Potential and Acoustic Measures of Infant Auditory Function" (Project 4 of Hearing Development Program Project, E.W Rubel, Program Director); July 1, 1988 - June 30, 1998; Current year budget, \$49,322 direct costs.

Principal Investigator, March of Dimes Grant No. 12-176; “Development of Behavioral Auditory Assessment of Young Human Infants”; March 1, 1988 - February 30, 1992; Annual budget \$17,000 direct costs.

Principal Investigator, Virginia Merrill Bloedel Hearing Research Center; “Selective Attention to Sound Frequency in Infants and Adults”, July 1, 1991 - June 30, 1992; \$2,240.

Principal Investigator, “Developmental Psychoacoustics Conference”. Several grants were obtained to support a conference held at the University of Washington in August, 1991:

American Psychological Association Conference Grant	\$13,492
NIH Grant No. R13 DC01069 (direct costs)	\$10,000
Virginia Merrill Bloedel Hearing Research Center	\$ 3,317
University of Washington College of Arts & Sciences	\$ 2,000
University of Washington Graduate School	\$ 2,225

Co-investigator; University of Virginia Pratt Fund Award; “Sound-Attenuated Newborn Testing Room”; July 1, 1985 - June 30, 1986; \$17,835.

Principal Investigator, Virginia Commonwealth University Biomedical Grant-in-Aid, “Frequency Resolution in Human Infants”; January 1, 1982 - December 30, 1982; \$3,746.

Principal Investigator, Virginia Commonwealth University Grant-in-Aid, “Auditory Frequency Discrimination in Human Infants”; June 1, 1980 - May 31, 1981; \$3,765.

PROFESSIONAL OFFICES, AWARDS, SERVICE

Departmental Committees

Faculty Committees

Chair, Doctoral Curriculum Revision Committee, 1992-1998
Chair, Peer Teaching Evaluation Committee, 1995-2003
Member, Tenure Committee for Chris Moore 1995-1997
Member, Tenure Committee for Pam Souza, 1997-2002
Executive Committee/ Normal Aspects Interest Group Head, 1997-1998, 1999-2000,
2002-present
Member, Audiology Search Committee, 2003-2005
Chair, Normal Aspects Search Committee, 2004-2005
Chair, Tenure Committee for Kristie Spencer 2004-2008
Member, Tenure Committee for Tanya Eadie, 2003-2008
Chair, Tenure Committee for Chris Stecker, 2005-present
Chair, Neurogenics/Speech Science Search Committee, 2007-2008
Chair, Seminars in Hearing and Communication Sciences organizing committee,
2009- present
Chair, Department Website Committee, 2010 - present
Member, Tenure Committee for Jessica Sullivan, 2010-present
Chair, Promotion Committee, Beate Peter, 2012-present

Training grants

Auditory Neuroscience Training Program, Program Director Covey
Research Training in Speech and Hearing Science, Program Director Werner

University committees

Member, Affiliate Liaison Committee, Virginia Merrill Bloedel Hearing Research Center, 1995-
1998, 2004-present
Member, Bloedel Hearing Research Center Director Search Committee, 2003-2004
Royalty Research Fund Review
Member, Speech and Hearing Chair Search Committee, 1998
Member, Faculty Senate, University of Washington, 1996-1998
Member, Otolaryngology Chair Search Committee, 2007-2008
Chair, Site Review, Linguistics 10-year Review, 2011.

National and international committees

Chair, Membership Committee of the Acoustical Society of America, 2012-present
Ad hoc grant reviewer, NIDCD, 2007-2008
Member, Membership Committee of the Acoustical Society of America, 2007-2012
Ad hoc grant review for NIDCD P30 program, Bethesda, January 2006.

Research Consultant, Dept. Speech and Hearing Sciences, University of Arizona, 2004-present.
Member, Technical Committee on Psychological and Physiological Acoustics, Acoustical Society of America, 1987-1992, 2005-present.
Member, Technical Program Organizing Committee, Acoustical Society of America, Spring 1998 meeting
Member, Grant Review Committee, National Organization for Hearing Research, January 1994 - 1996.
Consultant, NIDCD Research and Training Center, Vanderbilt University; July, 1991 - June 1993.
Member, Hearing Research Study Section, NIH, October 1987 - September 1991.

Editorial review

Guest Associate Editor, Journal of Speech Language and Hearing Research
Regular *ad hoc* reviewer for Acta Paediatrica
Child Development
Developmental Psychobiology
Developmental Psychology
Developmental Science
Ear & Hearing
Infancy
Infant Behavior and Development
Journal of the Acoustical Society of America
Journal of the Association for Research in Otolaryngology
Journal of Experimental Child Psychology
Journal of Pediatrics
Journal of Speech Language and Hearing Research
Perception and Psychophysics

Honors

Fellow, Acoustical Society of America, June 2002
Honorable Mention, University of Washington Distinguished Graduate Mentor Award, 2002
Virginia Merrill Bloedel Hearing Research Scholar, 1999-2002
Paper— Olsho, L., Koch, E.G., Carter, E.A., Halpin, C.F. and Spetner, N.B. 1988. Pure tone sensitivity of human infants. *Journal of the Acoustical Society of America*, 84, 1316-1324— chosen as a ‘Major Work’ to be reprinted in *Sage Benchmarks in Psychology: Developmental Psychology*, J.G. Bremner and C. Lewis (Ed).

RECENT TALKS, PRESENTATIONS, PAPERS

Invited Presentations

- Werner, L.A. 2008. Human auditory development. Hallpike Symposium, London UK, February.
- Werner, L.A. 2008, Stages of human auditory development. Department of Speech and Hearing Sciences, University of North Carolina, Chapel Hill, NC. April.
- Werner, L.A. 2008, Infants' perception of pitch and music. Ears Hearing & Beyond, Seattle, WA, April.
- Werner, L.A. 2008. Development of auditory behavior. Widex Congress of Pediatric Audiology, Amsterdam, May.
- Werner, L.A. 2009. Development of auditory behavior: Hearing science. American Speech Language Hearing Association, Miami Beach, November.
- Werner, L.A. 2010. Development of auditory behavior. Diane Kewley-Port Lecture, Indiana University, Bloomington, October.
- Werner, L.A. 2011. Development of auditory behavior. James Madison University, Harrisonburg, Virginia, September.

Contributed Presentations

- Werner, L.A. 2008. The duration of infants' and adults' temporal windows. Association for Research in Otolaryngology, Phoenix, February.
- Jeon, H. & Werner, L.A. 2008 Infants' and adults' tone detection in modulated and unmodulated noise. American Auditory Society, Scottsdale, March.
- Werner, L.A. 2008. Stimulus characteristics that promote infants' sound separation. International Conference for Infant Studies, Vancouver BC, April.
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PART C: APPENDICES

Appendix D: Doctor of Audiology / 2010 Self-Study Report



College of Arts and Science

Seattle Campus

Doctorate of Audiology (Au.D.) Program

2010 SELF STUDY REVIEW

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Kelly Tremblay, Ph.D., Associate Professor and Audiology Interest Area Head
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Date Submitted: March 13, 2010

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PART A: BACKGROUND INFORMATION SECTION

I: OVERVIEW OF THE ORGANIZATION

Mission & Organizational Structure

Mission: The mission of the Au.D. Program is to promote excellence in education, research and service delivery and to be a center of excellence in education, research and clinical practice within and beyond our local community.

Vision: The vision of the Au.D. Program is to be a center for excellence committed to understanding the basic processes and mechanisms involved in human audition and its disorders, and to improving the quality of life for individuals affected by hearing and balance disorders across the life span.

To achieve this vision we will focus on these goals:

To provide Au.D. students with a foundation in speech and hearing sciences from which to draw from when assessing and managing populations with communication disorders.

To provide Au.D. students with a curriculum that meets or exceeds the academic and clinical practice requirements for professional certification (the Certificate of Clinical Competence in Audiology, or CCC-A) awarded by ASHA (American Speech Language Hearing Association).

To provide in-house clinical training through hands-on experience testing children and adults in the SPHSC clinic.

To provide clinical and rehabilitative Audiology services in the form of evaluations, consultations, and individual and group treatment through mentored placements inside and outside of the SPHSC clinic.

To provide a broad scope of education including cross-disciplinary training that prepares graduates for Audiology careers in a variety of settings.

To provide Au.D. students with an opportunity to participate in research as well as train for a career involving basic or applied research.

Degrees offered: A single degree is offered through this program: the **Doctor of Audiology (Au.D.)**. There are no alternate pathways or tracks within the program. It is a fulltime 4-year commitment. Continuing education and part time study is not offered.

Staffing: The Au.D. Program has four state-funded FTEs and four FTEs funded through a combination of the Department's release recapture budget, the Hearing Aid Dispensary budget and the Au.D. self-sustaining budget. As of Autumn Quarter, 2009, there is one Full Professor, one Associate Professor, one Assistant Professor, and five Lecturers. The Au.D. program has

one open professorial position to be filled. Further, there are two hearing science faculty who contribute to the teaching mission in the Au.D. program. In addition to SPHSC faculty, there are three Adjunct Associate Professors and three Clinical Instructors who contribute part-time teaching. Appendix C provides a more complete description of the SPHSC Au.D. faculty and their areas of interest.

The Au.D. Program has access to support staff in the Department of Speech and Hearing Sciences. There are 3.0 FTE support staff in the Speech and Hearing Clinic and 8.0 FTE support staff in the SPHSC Department. These support staff members provide to all aspects of the Department in the areas of administration, grants management, fiscal/budget, technology, reception, undergraduate advising, and clinic records. These staff members also serve other divisions within SPHSC (including: Speech Language Pathology and Basic Processes of Speech, Hearing, and Language).

Governance: The Department (SPHSC) is administered by a Chair with faculty organized into three principal interest areas (Basic Processes of Speech, Hearing, and Language; Audiology; Speech-Language Pathology), each of which is chaired by a group leader or Head. The Au.D. Program is administered within the Audiology Interest Area and is lead by an Interest Area Head (Kelly Tremblay). (See Appendix A for an organization chart of the Au.D. Interest Area.) The Audiology Interest Area meets monthly and is advisory to the Chair and the faculty as a whole concerning all aspects of the Audiology program including the Au.D. This includes: managing budgets, student admissions, curriculum planning, didactic and clinic evaluation processes, student tracking scheduling; faculty and TA deployment; and evaluation of graduate student progress. The Head of the Audiology Interest Area is on the Department's Executive Committee, a committee that is advisory to the Chair in matters of overall departmental planning and procedure.

The Au.D. program meets the accreditation standards established for the Department of Speech and Hearing Sciences. The clinical education program in the Department is fully accredited by the Council on Academic Accreditation (CAA) through the American Speech Language Hearing Association (ASHA) and will continue to be reviewed and approved by that organization. These external evaluations occur through yearly reports to ASHA as well as through on-site evaluations every five years.

Budget & Resources

The budget for the Au.D. Program receives contributions from three separate sources: 1) a portion of the GOF budget of the Department of Speech and Hearing Sciences, 2) fee-based revenues generated through additional student fees through Professional and Continuing Education, and 3) revenues from the Speech and Hearing Clinic Hearing Aid Dispensary. Students pay graduate tuition to the University of Washington (resident or non-resident tuition) as well as a separate clinical education fee paid through Professional and Continuing Education. The cost to students is the combined UW graduate tuition and the miscellaneous fees assessed through Professional and Continuing Education. For the 2009-10 academic year, the resident UW graduate tuition was \$13,409 (including summer) and the Professional and Continuing Education fees were \$10,192 (including summer) for a total (plus additional misc. fees) cost of

\$24,478 annually. For non-resident students, the UW graduate tuition was \$31,564 (including summer) and the Professional and Continuing Education fees were \$10,192 (including summer) for a total plus additional miscellaneous fees cost of \$42,632 annually. **The total four year degree tuition including Profession and Continuing Education fees is \$83,626 for in state and \$100,026 for out of state students.** The Hearing Aid Dispensary provides some small contribution to salary support for various Au.D. Program Faculty. Appendix B provides a budget summary.

Budget Evaluation: The Department of Speech and Hearing Sciences Executive Committee, advisory to the Department Chair, provides ongoing review and evaluation of all fiscal/budget matters in the Au.D. program as well as advice regarding faculty and staff deployment. The Executive Committee receives additional input from the Audiology Interest Area as well as the standing Clinic Coordinating Committee.

Funding Strategies: The on-going memo of agreement with Professional and Continuing Education assesses an instructional fee of \$10,192 for each student for each year in the program. This assessment allows for sufficient resources for faculty and staff to offer the Au.D. Program. In addition, we have a small training grant from the Association of University Centers on Disabilities (AUCD) that provides stipends to selected students in pediatric Audiology during the third year of study. Students participating in the Au.D. and Au.D./Ph.D. track are eligible to serve as teaching assistants (TA) when needed. This service comes with a tuition waiver and stipend.

SECTION II: TEACHING & LEARNING

Student Learning Goals and Outcomes

Student learning goals:

Student learning goals are driven by the Speech and Hearing Sciences faculty, the UW Graduate School and through national standards as determined by the American Speech-Language- Hearing Association (ASHA) (the organization which provides national accreditation to our Au.D. program). Undergraduate coursework in basic communication sciences is assumed upon entering the program; however, students without a background in speech and hearing sciences may require additional coursework beyond the required program plan.

Students are not required to have a speech and hearing undergraduate major in order to apply to the Au.D. program. Because we no longer require students to have majored in speech and hearing sciences at the undergraduate level, we are now able to recruit non-traditional students into the Au.D. program. This change in admission policy provides the opportunity to increase diversity in terms of educational background. We view this as a positive move for our profession because it provides the opportunity for students from pre-medicine, computer science, electrical engineering, linguistics and education to bring their perspectives and skills to the profession.

Upon completing the Au.D. program, however, all students will have a minimum of one course in each of the following areas: life science, physical science, behavioral science, and mathematics. Coursework must also satisfy ASHA requirements and include: normal development of speech and language; phonologic, morphologic, syntactic, and pragmatic aspects of human communication associated with hearing impairment; and normal processes of speech and language production and perception over the life span. Required and elective coursework for the AuD degree can be found in Table 2 and Table 3.

Table 2. Required courses and credits for the Au.D. degree

462 Hearing Development (3)	574 Assessment of Balance (4)	585 Pediatric Amplification (2)
503 Professional Issues (2)	575 Medical Bkgs (3)	586 Cochlear Implants (5)
504 Research Methods (3)	576 Otoacoustic Emissions (2)	588 Professional Seminar (F/W/Sp 3 rd yr = 3 total)
509 Adv Hearing Science (3)	577 Hrng Conservation (3)	592 Physiologic Assess I (3)
521 Instrumentation (4)	578 Hrng Screening (2)	593 Physiologic Assess II (3)
522 Instrument Repair (1)	579 Geriatric Audiology (2)	600 Research Practicum (3 cr x 4 qtrs = 12 total)
523 Special Topics (3)	580 Adv Audiol Rehab (3)	EDSPY 490 Basic Statist (3) (or eqv)
542 Counseling (2-3)	581 Mgt HI Child (2)	
570 Assess Aud Dysf I (4)	582 HA Amplification (4)	
571 Assess Aud Dysf II (4)	583 HA Selection (4)	
572 Pediatric Aud (3)	584 Adv Issues HA (2)	

Table 3. Examples of possible electives

EDPSY 471 Neurops Sch (5)	HSERV 510 Soc & Health (3)	UCONJ 442 Soc Aging (3)
EDPSY 419 Intervention (3)	HSERV 511 Health Ser (3-4)	UCONJ 524 Dev Neuro (3)
EDSPE 504 Sp Ed & Law (3)	HSERV 518 Soc & Eth (2-4)	UCONJ 411 Psych Aging (3)
E 518 Digital Sig Process (4)	MKT 335 Principles Selling (4)	UCONJ 440 Biol Aging (3)
ENVH 457 Industrial Noise (3)	NEUBEH 502 Neurobio (4)	ASL 305 Deaf Studies (3)
SPHSC Courses:		
SPHSC 308 Soc Cult Asp (3)	SPHSC 503 Current Issues Sp/Hearing Sciences (3)	SPHSC 505 Clinical Research in Comm. Disorders (3)
SPHSC 510 Physiological Acoustics (3)	SPHSC 511 Psychoacoustics (3)	SPHSC 514 Speech physiology (3)
SPHSC 515 Speech acoustics (3)	SPSHC 516 Speech perception (3)	SPHSC 525 Speech Signal Processing (3)
SPHSC 540 Phonological dev (3)	SPHSC 560 Studies in Speech Science and Disorders (3)	SPHSC 561 Studies in Hearing Science and Disorders (3)
SPHSC 562 Studies in Language Science and Disorders (3)	SPHSC 563 Proseminar: Instructional Development Forum (1, max 3 credits)	SPHSC 566 Seminar in Speech-Language Development (2)
SPHSC 567 Research Seminar in Speech and Hearing Sciences (1)	SPHSC 599 Research Practicum (variable, max 12)	SPHSC 600 Independent Study (variable, max 10)

All students participate in part-time clinical practicum experiences during the first three years in the program. Each student completes a 12-month full-time supervised externship during the final four quarters of the program.

The following outcomes are expected as a result of the combined didactic and practical coursework:

- Demonstrate a knowledge foundation concerning disorders of the auditory pathway
- Demonstrate a knowledge foundation concerning approaches to diagnosis and intervention of auditory disorders
- Practice in a variety of clinical settings such as medical facilities, schools, and private practices
- Provide clinical services to individuals across the variety of hearing disorders
- Provide clinical services to individuals across the lifespan
- Provide clinical services in a variety of work settings
- Critically evaluate the appropriateness and effectiveness of diagnostic strategies and clinical intervention
- Prepares students in the full breadth and depth of the scope of practice in audiology
- Personalize their approach in clinical practice and adapt to meet the needs of the individual as well as attitudinal and environmental constraints
- Demonstrate clinical decision-making skills

Methods to evaluate student learning:

Clinical Comprehensive Examination – Students who excel in the classroom might be challenged to demonstrate competency when working with patients. For this reason comprehensive practical exams using standardized patients have been instituted for 1st year and 2nd year Au.D. students. The purpose of these examinations is to monitor the clinical skills of the students as they progress through the 4-year Au.D. Program. Expected clinical competencies must be met before the student is allowed to progress to the next academic year. The content for the 1st year students covers diagnostic Audiology. Content for the 2nd year students covers one

of the following: adult diagnostic evaluation including integration of the auditory brainstem response and otoacoustic emissions; pediatric diagnostic evaluation or hearing aid troubleshooting/real-ear measurements. If a student does not pass the exam they are allowed one re-take. If the re-take is not passed the student is dismissed from the program. Students must pass the examination prior to outside placements.

Written Comprehensive Examination – 3rd year Au.D. students are required to pass a written comprehensive examination at the beginning of winter quarter. Examination questions cover the following area: pediatric assessment, adult assessment, amplification, normal audition and treatment of hearing impairment. If a question is not passed the first time the student is allowed to re-take a new question within the same topic area. Should that question be failed, the student may be dismissed from the program. The purpose of the written comprehensive exam is to evaluate the student's didactic knowledge and critical thinking.

Knowledge and Skills Acquisition (KASA) – students must acquire the knowledge and skills required for certification through ASHA (American Speech-Language and Hearing Association). At the conclusion of each clinical practicum, students meet with their supervisor to review their clinic progress relative to the KASA standards. Students will track their progress on a departmental computer-based program that will document their didactic and clinical coursework, as well as their clinical hours.

Au.D. Research Project – all students are required to complete a research project with the advice and approval of their advisor and research mentor. The entire project involves a 10-credit series of mentored research that results in a project showing evidence of mature scholarship, while contributing important and useful information to the profession. The student's work should demonstrate a firm grasp of the problems in a particular area of study and show an ability to communicate ideas in writing. Topics can be basic or clinical research. Some examples include: studying ototoxicity in zebrafish, estimating noise levels coming from the personal media players of college students, as well as examining the effects of auditory training on brain activity. We believe the Au.D. research component required for the completion of the Au.D. degree is an important area of training and is a strength and distinction of our program. Through the research project students develop critical skills in developing a research protocol, gathering and analyzing data, as well as conducting a final written and poster presentation. These experiences provide valuable lessons in understanding and consuming research in their professional careers. We are the largest Ph.D. granting institution in the country for Speech and Hearing sciences. Whether our students leave with a Ph.D. or the combined Au.D./Ph.D. we are providing significant contributions to the profession of audiology to further our knowledge and research base in our profession.

Methods for assessing student satisfaction:

At the completion of each didactic course and/or practicum experience, students are asked to anonymously evaluate the instructor through written comments and standardized forms available through the the Office of Educational Assessment. Completed forms are returned to the OEA and the scores are interpreted. Results of these assessments are returned to the instructor and the Chair of the department.

An additional method for assessing student satisfaction has been the creation of a student representative to act as a liaison between faculty and the Au.D. students. The Audiology Interest Group meets at least once a month and the student representative, who has been selected by his/her peers, is present at these meetings. The representative is given the opportunity to express any student concerns as well as contribute his/her opinion and is then responsible for sharing information from the meeting with the other students. The student representative may also bring up areas of concern to the Audiology Interest Group Head between meeting dates if needed.

Assessment of student learning:

The first group of 4-year Au.D. students entered the program in the fall of 2006. The clinical comprehensive hands-on examination was not commenced until the following year. Therefore, in the spring of 2008, ten first-year students took the exam during spring quarter. The purpose of this exam format is to assess a student's ability to integrate and apply knowledge gained in the classroom to a clinic setting, involving standardized patients. One student failed the exam the first time, but passed on the second attempt. In the spring of 2008, ten second-year students took the exam with two students failing the first time and subsequently passing the second re-take. Thirteen first-year students took the exam in the spring of 2009 with no failures.

The first written comprehensive exam taken by students in the 4-year Au.D. program, was offered at the beginning of winter quarter, 2009. The purpose of this written exam is to assess each student's ability to integrate knowledge gained in the previous 3 years and apply it to different case studies and theoretical models. Ten students took the examination. Each examination consists of questions representing five different specialty areas (see previous section). Only 10% of the questions needed to be retaken due to poor performance. All students subsequently passed this requirement.

In conclusion, the unit has used the findings described within this section to make significant improvements in the didactic and clinical requirements, as well as in the creation of clinical comprehensive examinations. The clinical comprehensive examination was driven by a need to assess clinical competencies under a consistent "benchmark" prior to progressing into the 2nd year of the program and prior to participating in external clinical rotations. Additional decisions regarding curriculum, practical experiences and examinations have been driven in part by student feedback and feedback from external clinical supervisors. For instance, a recent curriculum review of the clinical practica progression revealed areas that could benefit from change. Specifically, changes were made to the first year progression to assure an equal clinical experience in the 1st and 2nd quarters of their first year in the program. Prior to this change, students either participated in a speech clinic rotation, aural rehabilitation rotation or an employee hearing screening (EHS) program creating inconsistent opportunities to practice diagnostic skills. During Fall, 2009 all students participated in a diagnostic rotation to screen individuals for research purposes (or the EHS program). Positive feedback was provided by the students regarding this new opportunity. Another area of change was a review into the didactic curricula to eliminate redundancy between courses. This review was conducted in part because of student feedback regarding some redundancies in guest lecturers across different courses.

Instructional Effectiveness

The Department of Speech and Hearing Sciences conducts peer teaching reviews and merit reviews at varying intervals depending on faculty rank in accordance with UW policies. Merit reviews occur annually and peer teaching reviews occur annually for assistant professors, full and part-time lecturers and clinical faculty. Full professors, associate professors and senior lectures are evaluated every three years for the peer teaching component. A peer teaching committee evaluates each faculty member on the following self-submitted criteria. For each course or practicum taught, the instructor provides: syllabus, sample of lecture, sample of assessment tool (quiz, exam) and copies of instructional assessment forms including student comments. Faculty members are responsible for uploading materials to a website using the [Peer Teaching Feedback Checklist](#). This material is then reviewed by the committee and reported using the [Peer Teaching Committee Feedback](#) form. Each faculty member obtains a rating of “acceptable”, “needs attention” or “NA” for each of the measures. They also receive an overall rating for each course/practicum of “1” if they meet/exceed expectations or “O” if not meeting expectation. If a faculty member receives a “O” rating the faculty member meets with the Chair of the Department and a copy of the Peer Teaching Feedback Checklist would be placed in the faculty member’s record. The Chair would work with the faculty member to develop a plan to assist that faculty member into meeting departmental standards.

Additionally, each faculty member participates in a Merit Review annually. During this process each faculty member provides the following documents: a current CV, yearly activity report ([professorial](#) version and [lecturer](#) version) and a personal statement regarding their progress in the previous year with additional goals for the upcoming year. A peer observation may also be conducted as part of the Merit Review process. Faculty files are reviewed by peers. Ratings are only counted for colleagues within equal or higher ranks (i.e. full-time lecturers review full-time lecturers, part-time lecturers and clinical faculty but they do not review senior lecturers).

As part of the interview process for any position requiring classroom instruction, the applicant must conduct a lecture for a course. This lecture is observed by current faculty members and students. Once hired, the new faculty member is mentored by a senior faculty member and will be observed for at least one additional lecture. Faculty members are also encouraged to use the Center for Instructional Development (CIDR) for additional teaching support.

Doctoral and graduate students, including TAs, are provided additional training through SPHSC 563 Instruction Development Forum course. As described on the course website <http://faculty.washington.edu/lolswang/html/563index.html>, this course serves the following functions. “This course is designed to provide students with general and specific information regarding teaching at the college/university level. The course will expose students to University of Washington teaching resources and provide opportunities to learn about instructional techniques and issues as they relate to teaching in the discipline of communication sciences and its disorders. Guest speakers, panel presentations, group discussions will be included in the course delivery. Students will be expected to be actively engaged in both the teaching and learning of material. Students will be required to complete two assignments during the year. One assignment will be to investigate and lead a class discussion on a topic related to teaching

and of particular interest to the student. The other assignment will be to develop and write a short essay regarding the student's philosophy of teaching. The course is designed to not only provide opportunities to increase knowledge and skills in regards to teaching, but also as a forum for students to share personal experiences and insights related to teaching and learning.” In addition, the course website is available for TA resources such as sharing teaching tools, sharing previous syllabus and previous labs. Each TA is also supported by and works closely with the faculty member teaching the respective course.

Instructional changes that have occurred due to peer teaching reviews, merit reviews and/or classroom observations have varied per faculty member. Changes include revising a syllabus to provide greater clarity of course requirements and/or expectations for success within that class. We have also observed changes to the format and content of PowerPoint presentation material for improved organization. Course websites have been created in some cases, and expanded for others to provide web-based access to the course syllabus, lectures, readings and examples of student projects.

When clear correction is needed, faculty members have consulted with Center for Instructional Development and Research (CIDR), either voluntarily or at the urging of the Department Chair or Head of their respective Interest Group section. These efforts have demonstrated improvement on test construction, lecture style, management of grading data or all of the above. Consultants from CIDR have observed in the classroom environment to provide feedback to instructors. This has included obtaining information from students to share with the faculty member.

In order to enhance teaching effectiveness, faculty members attend numerous continuing education courses to further their knowledge base in didactic and clinical areas. The department encourages and supports faculty in this mission to remain current in our profession.

Teaching and Mentoring Outside the Classroom

Teaching and mentoring outside of the classroom are essential components of the Au.D. program in which all Au.D. faculty are actively involved. These components may be provided through activities such as advising, clinical rotations, research projects, work study positions, teaching assistant positions and student leadership as described within this section.

All Au.D. faculty mentor students as academic and program advisors. Advisors meet with the student regularly to ensure the student is progressing through their program satisfactorily and provide guidance in planning their overall program.

Students are assigned clinical rotations from the beginning of their program through their third year. Core faculty work with students individually during this experience and provide mentoring, teaching and guidance in a close relationship. The instructor meets with the student weekly to provide additional feedback and to assist the student in planning further sessions. Close mentorship allows teaching of specific skills as well as demonstration of critical interpersonal and professional behaviors within a clinical environment.

Professors and lecturers are also mentors to the Au.D. students for their research projects. In addition to classroom training on how to conduct a literature search and design an experiment, faculty work with students to help them develop a research question and then assist them throughout the design, implementation and written document. The result is a 10 credit sequence dedicated to a capstone project which is presented in written and oral form in the student's third year. In many instances, Au.D. students present their research projects at state and national meetings.

Professorial faculty also serve on dissertation committees for those students who are obtaining combined Au.D./Ph.D. degrees. They also mentor Au.D. students through Research Assistant or hourly positions available in their research labs. Experience and mentorship received in a research lab has exposed students to opportunities in research and has motivated many students to ultimately pursue the Ph.D. degree.

Au.D. students are offered hourly positions in the Audiology Diagnostic Clinic and the Lions Hearing Aid Bank. In these positions students work closely with Audiology Clinical faculty and learn important professional skills related to the field. Students are given experience and mentorship in practice management areas which facilitate and enhance the transition to expectations in clinical environments.

Au.D. students are eligible for Teaching Assistant positions during their second and third years and work closely with instructional faculty. Students who serve as Teaching Assistants meet regularly with the course instructor and are mentored in the essential elements of effective teaching and grading.

In addition, a faculty member is mentoring the University of Washington chapter of the Student Academy of Audiology (SAA). This relationship assists student members to develop leadership skills that they will hopefully carry into their professional career. The National Student Speech Language Hearing Association (NSSLHA) is an additional student organization for speech, language and audiology students from undergraduate through graduate studies. Our undergraduate advisor serves as the mentor for this organization.

Au.D. students receive significant mentoring from community professionals. Following successful completion of the second year clinical comprehensive exam, Au.D. students seek outside clinical rotations to begin the transfer of clinical skills to "real world" environments. We have affiliations with several community sites that have committed to mentor our students every quarter. These community sites as well as other sites around the nation also provide full and partial year externships to our fourth year Au.D. students. These relationships are critical to the overall clinical training of Au.D. students. We have established excellent relationships with these sites where we believe the students receive quality clinical instruction that is continued beyond the classroom and department clinical facility. We are confident these sites are committed to mentoring the next generation of audiologists by providing these quality growth experiences. **Anecdotally, placing fourth year students has presented a challenge for many institutions in the country, but we have not experienced problems of this same magnitude because our students are often interested in remaining in the Northwest for their 4th year. With little competition for this region, so far we have been successful with 4th year placements.**

To support our colleagues who volunteer as external supervisors, our department provides mentorship through hosting quarterly meetings and an annual “Summer Institute on Supervision” to support their supervisory training and education. These mechanisms enhance relationships, provide continuing education hours and opens dialogue between supervisors and the university. These events have been well-received by participants to enhance their teaching effectiveness.

SECTION III: SCHOLARLY IMPACT

The mission of the Audiology unit is to be a center of excellence in education, research and clinical practice within and beyond our local community. The Audiology unit includes three doctoral level tenure-track faculty members as well as four full-time lecturer/clinical supervisors. One measure of faculty leadership is success in competing for nationally funded research in a highly competitive environment with limited funding sources. Individual grant support is detailed below. Each of our tenure-track faculty members has or has recently completed funding from the National Institutes of Health, including one training grant for pediatric Audiology training (Folsom).

Our research and clinical interests cover a broad range of topics from newborn hearing screening and early measures of hearing (Folsom), auditory training, aging, and the effects of assistive listening technology (Tremblay), to the sound processing techniques to optimally stimulate the impaired auditory system in cochlear implant listeners (Bierer).

Professor Richard Folsom, Ph.D., CCC-A, has a focus on pediatric Audiology and evoked potentials. He is currently the Head of Audiology at the Center for Human Development and Disabilities at UW and a Research Affiliate of the Bloedel Hearing Research Center. Dr. Folsom has published in the areas of early identification of hearing loss, hearing development, and pediatric assessment. He is currently a principal investigator (UW site) on a large, multi-center research project entitled "Identification of Neonatal Hearing Impairment". The goal of this project is to evaluate the efficacy of both the auditory brainstem response and otoacoustic emissions as tools for identifying hearing loss in the neonatal period. He is also a principal investigator on a grant entitled "Auditory Sensitivity and Frequency Resolution" from the National Institute of Deafness and other Communication Disorders (NIH-NIDCD). Prof. Folsom has been involved as the President of the Washington Society of Audiology as well as serving on many national organization committees and chair positions for conferences. He has an extensive history of training and mentoring numerous masters' theses as well as doctoral dissertations. More information about Dr. Folsom can be found at: <http://depts.washington.edu/sphsc/folsom.htm>

Professor Kelly Tremblay, Ph.D., CCC-A and her research team are interested in auditory rehabilitation and study experience-related changes in the brain. Their program of research includes the effects of auditory deprivation (age-related hearing loss) and stimulation (hearing aids, cochlear implantation, and auditory training) on the brain. Hearing aids and cochlear implants help compensate for disorders of the ear, but successful rehabilitation also depends on the integrity of the central auditory system. Therefore, to learn more about the representation of sound in the brain, members of the Brain and Behavior lab use EEG methods to explore how sound is processed in the auditory systems of people with and without hearing loss. To learn

more about each project, visit this website

<http://depts.washington.edu/sphsc/labsites/tremblay/research.htm> She has a long history of funding as the PI on grants from the National Institutes of Health, American Academy of Audiology, American Federation of Hearing Research and the Deafness Research Foundation. She is also a Fellow of the American Speech-Language Hearing Association. Her Au.D./Ph.D. and Ph.D. students are also funded through NIH NRSA F30 and F31 grants.

Professor Julie Arenberg Bierer's, Ph.D., CCC-A research interests involve cochlear implants, which are prostheses that enhance or restore hearing in severely impaired individuals. Cochlear implant patients typically perform well, but they show a wide range of speech perception abilities and most cannot enjoy music. Her research addresses the possible causes of poor outcomes and explores new clinical techniques and signal processing methods that may improve the way cochlear implant patients hear. This link can be used to learn more about her work <http://depts.washington.edu/sphsc/bierer.html>

Our students also receive instruction and direction from faculty in the normal aspects division of our department including Lynne Werner, Ph.D. and G. Christopher Stecker, Ph.D. Dr. Werner's area of expertise lies in the development of hearing in infants. She is a well respected scientist and has had NIH funding for many years. For the Au.D. students she often teaches courses on Hearing Development and Research Methods. Dr. Stecker studies the perception of sounds from different locations in space and he has also been funded from NIH and NSF throughout his career. He has taught the required Instrumentation course and two doctoral level courses Physiology of Hearing and Psychology of Hearing that our Au.D. students may take as electives.

Our unit also involves our adjunct faculty members in didactic teaching, as well as clinical supervision. Our adjunct faculty includes world renowned clinician scientists including Patrick Feeney, Ph.D. who is currently Past-President of the American Academy of Audiology, and also the Chief of Audiology at the University of Washington Medical Center. Dr. Feeney teaches our vestibular course. Dr. Tom Rees is a UW associate professor of otolaryngology and director of the Audiology Services at Harborview Medical Center. Dr. Rees teaches courses in medical audiology, and medical coding. Dr. Susan Norton is currently the director of Audiology and the Cochlear Implant program and Seattle Children's Hospital and Regional Medical Center. She teaches courses in cochlear implants and management of hearing impaired children.

Are there any student accomplishments (both undergraduate and graduate) that have had broad impact on the field?

Many of our students, who have attended the University of Washington as undergraduates are Mary Gates Scholars who are active in our program prior to joining SPHSC as a graduate student. Within our graduate program, several students have been awarded scholarships through the LEND program described in the following section. In addition, students have presented their work and received travel awards to attend several international meetings, including the Association for Research in Otolaryngology, the American Auditory Society, and the Conference on Implantable Auditory Prostheses. Our first Au.D./Ph.D. student, Katrina McClanahan, was recently awarded an NIH individual fellowship training grant for students dually enrolled in both an Au.D. and a Ph.D. program. One of our former students, Naomi Bramhall, has gone on to a

Ph.D. program at the Massachusetts Institute of Technology, Health Scientist Training Program and she is co-author on a couple of peer reviewed papers from her Au.D. research project with Valerie Street, Ph.D. (one of the Bloedel faculty members). Additionally, over the last five years we have had two Ph.D. students receive the ASHA's New Century Scholars award, one receive the National Center for Rehabilitative Audiology Summer research traineeship and a number of University of Washington internal scholarships awarded for academic and clinical achievement.

In what ways have advances in the field or discipline, changing paradigms, changing funding patterns, new technologies and trends, or other changes influenced research, scholarship, or creative activity in the unit?

Advances in the field of Audiology have led to the expansion of the Au.D. program from 3 to 4 years enabling the curriculum to include advanced technology training in areas such as electrophysiology and cochlear implants. As part of the requirements for the four year Au.D. program we include a mentored research project and by increasing the length of the program by one year, the students can gain more research experience. Recently the NIH has added audiology as one of the clinical training programs that allows students to receive funding in the form of training fellowships for clinical and research training.

In terms of the clinical training, we have added clinical comprehensive exams during Spring quarter of the first and second year of the program (see Section II, subsection "Methods to Evaluate Student Learning"). We have incorporated the use of standardized patients from the medical school to serve as practice patients for hands-on training in the classroom, labs and for exams. Also, video cameras have been installed in the clinic for supervisors to observe students with patients and for counseling students about their interactions with the patients.

List any collaborative and/or interdisciplinary efforts between the unit and other units at the University or at other institutions, and the positive impacts of these efforts.

Students and faculty also benefit from regular scholarly exchanges with our colleagues at the Virginia Merrill Bloedel Hearing Research Center, for which all of our faculty are affiliated. This relationship consists of regularly scheduled journal clubs, a colloquium series, and our Au.D. students have the opportunity to conduct their research projects in the labs at Bloedel.

The Center for Human Development and Disability (CHDD) is an integral part of our program. The Leadership Education in Neurodevelopmental and Related Disabilities program at the [University of Washington \(UW LEND\)](#) is located at the CHDD, a University Center for Excellence in Developmental Disabilities (UCEDD). The UW LEND is a graduate level [interdisciplinary training](#) program that prepares students to assume leadership roles in their respective fields and insures a high level of interdisciplinary clinical competence in providing health and related services for children with neurodevelopmental disabilities and their families. There is a long-standing relationship between the LEND program at CHDD and the SPHSC department at the University of Washington. Faculty members in SPHSC serve as discipline leaders at CHDD. Faculty and staff at CHDD serve as professors, lecturers and clinical supervisors of both audiology and speech-language pathology student-trainees. Historically,

audiology students have completed all of their pediatric clinical training as part of the LEND program at CHDD.

Our department has recently developed a relationship with the Department of Music Education to educate students regarding music and noise exposure. We were also invited to discuss the effects of noise with a student group associated with the UW Dental program. At the student organization's request, 35 students were seen in our clinic for earmold impressions taken by Au.D. students and their clinical supervisors.

In terms of research, Dr. Tremblay has a long-standing collaboration with investigators at the Rotman Research Institute (at the University of Toronto), a center of excellence for aging where MEG facilities are available for research. Au.D. and Ph.D. students have benefited from this collaboration by learning about the procedures and outcomes, and/or contributing to the experiments and publications.

We are hoping to increase the presence of auditory habilitation for the pediatric population which has recently been evolving through our Aural Rehabilitation clinic. There is a shortage of clinicians and scientists in this specialty area. With this addition, it would allow us to create a specialty program that would permit more interaction and cross training with students in the Departments of Linguistics, and Psychology, as well as the College of Education.

How does the unit work with junior faculty to maximize their success?

Each junior faculty member is assigned a committee of two or three senior faculty mentor-advisors. The senior faculty members will eventually serve as the tenure/promotion committee, but in the early years of a new appointment, their role is to meet with the junior faculty member regularly to review progress and to offer advice for further progress. In addition, both committee members make themselves available to assist the junior faculty member in whatever way possible (e.g., reading and offering comments on manuscripts and grant applications; advising on issues related to funding or research methodology; observing and evaluating teaching). A junior faculty member's teaching and service loads are adjusted so they can devote their time to getting their research programs off the ground while preparing high-quality course materials. This system has been very successful in enhancing the professional development of junior faculty members and preparing them for successful lines of research and teaching, as well as successful tenure.

What specific strategy has the unit employed to recruit, and support the career success of, faculty members from under-represented groups? To what extent has the unit been successful in diversifying its faculty ranks?

Increasing cultural diversity has been a long-standing goal in the Doctor of Audiology program. This goal, however, has been difficult to achieve when compared to our Department's success in diversifying our undergraduate and graduate student ranks. Professorial faculty searches have been few and far between and any opportunities to diversify have been limited by the make up of our applicant pools. In our most recent professorial hire, five years ago, in spite of our efforts,

we were unable to recruit a faculty member from an underrepresented group. We are currently in the process of identifying potential candidates to hire into a vacant position on our professorial faculty for the Au.D. program and are encouraged that the applicant pool contains at least one individual from an underrepresented minority group. We are working closely with our Divisional Dean in the College of Arts and Sciences and the Vice Provost for Minority Recruitment and Retention to help bring about the recruitment of this individual.

As faculty in a Washington State supported institution, we are subject to state law that governs, and specifically prohibits, preferential treatment and/or direct recruitment of minority candidates specifically based on their minority status. Thus, the specific strategies employed in these recruitment endeavors have been almost exclusively word of mouth in addition to seeking out and identifying minority candidates at scientific meetings.

Unit's impact at regional, statewide, national and international levels

The Doctorate of Audiology program and its faculty members at the University of Washington contribute significant regional, statewide, national and international impact in the profession of Audiology. Our goal is to continue our contributions in the area that are outlined in this section.

The National Institute on Deafness and Other Communication Disorders (NIDCD) reports at least 36 million Americans have some degree of hearing loss and only 1 out of 5 individuals in need of amplification actually wears amplification (NIDCD website, <http://www.nidcd.nih.gov/health/statistics/quick.htm>).

Additionally, with the “Baby Boomer” generation reaching a point of age-related hearing loss, our profession is experiencing an increased demand for our services. **Unfortunately, our profession is not equipped to meet the increased demand for our services as we are facing shortages in both Au.D. and Ph.D. professionals.** An additional challenge facing our profession is the number of audiologists reaching retirement age. According to Freeman (AudiologyToday, Nov/Dec, 2009, p. 51) “approximately 6000 audiologists (38% of audiologists) will reach retirement age in the next decade.” Freeman (2009) also reports that our discipline is training approximately 5500 clinical audiologists each year.

The increased demand for our services coupled with a decrease in the number of audiologists reflects the continued demand for AuD training programs. Our program provides an opportunity for students to obtain an Au.D., a Ph.D. or a combined Au.D./Ph.D. In addition, our program is the largest PhD training program in the country for Speech and Hearing Sciences. With the introduction of the combined Au.D./Ph.D. program, several students have enrolled in this joint degree program. Our impact nationally is providing a quality program which continues to fill the pipeline of qualified audiologists and researchers to meet the rising demand of the hearing impaired population.

Regional/State contributions:

At a regional level, the University of Washington is the only program in Washington state granting an Au.D. degree. Undergraduate degrees are available in Communication Disorders/Speech and Hearing Sciences at Western Washington University, Washington State University, Eastern Washington University, Portland State University and University of Oregon.

Our program provides an opportunity for interested students to remain in the Northwest to complete their Au.D. training, at a program ranked in the top 5 nationally. **We are the only Au.D. granting program on the west coast, aside from one Au.D. program in California and one Au.D. program in Idaho.** The cross-dependencies of the in-state and out of state programs provide geographical diversity in our Au.D. students. The fact that we have a variety of in-state and out of state students contributes to our success in placing these students in their fourth year rotation.

Additionally, the presence of Au.D. training program in Washington state also serves to provide quality hearing healthcare in the region since our graduates often choose to reside in the Northwest after completing their degree. Other areas with Au.D. programs, including Eastern Washington and Oregon often report challenges recruiting audiologists to their regions.

An additional regional impact comes in the services provided through the Audiology section of the University of Washington Speech and Hearing Clinic. The Speech and Hearing Clinic is an integral part of the Au.D. training program which provides in-house training for the development of clinical skills. One service provided in this clinic is the provision of hearing aids through the Northwest Lion's Hearing Aid Bank (HAB). The HAB and two work study positions are funded by the Northwest Lion's Foundation for Sight and Hearing. These students work with audiologists within the Speech and Hearing Clinic, and with audiologists across Washington state in order to link donated/refurbished hearing aids to those patients who financially qualify for hearing aid assistance. The impact of this program is far-reaching to those in our community who would otherwise be unable to afford hearing aids to improve their ability to communicate.

Au.D. graduate students have provided clinical services for "Healthy Hearing", a hearing screening program within the Special Olympics International (SOI) Healthy Athlete initiative since 2003. This clinical work takes place under the supervision of Professor Richard Folsom, Washington State Clinical Director for the SOI Healthy Hearing program. Each year, Dr. Folsom takes 20 to 25 Au.D. students to the Washington Special Olympics (SOWA) summer games and provides clinical services for 200 or more special athletes through hearing screenings, counseling, and community referrals. The SOWA Healthy Hearing initiative is an important outreach aspect of the Audiology program in the Department of Speech and Hearing Sciences. This outreach serves the citizens of Washington State by improving access and health care for special athletes as well as educating Au.D. students about the special needs of, and how to communicate with, and care for, people with developmental disabilities.

Additionally at the state level, Kristiina Huckabay is currently fulfilling a 3-year term as President-elect, President and Past-President for the Washington State Academy of Audiology, a statewide organization representing audiologists. She is also mentoring the newly formed University of Washington Chapter of the Student Academy of Audiology (a national organization of students enrolled in Au.D. programs).

National contributions:

At a national level Dr. Kelly Tremblay serves as the Assistant Editor of the Journal of Academy of Audiology, the Program review committee and Editorial Board Member of the American Auditory Society and the Central Auditory Neuroscience Editor of Ear and Hearing. She has

also served (2002-2005) as the Associate Editor of American Journal of Audiology. Since 2000 she has written a monthly publication, “A Moment of Science” in the Audiology Today journal, a publication of the American Academy of Audiology. She is the Scientific Advisory Ad Hoc reviewer for grants for the National Institute on Deafness and other Communication Disorders (NIDCD), National Science Foundation (NSF) and Medical Research Council in the United Kingdom. She was also named a Fellow of the American Speech Language Hearing Association (ASHA) in 2008 and serves as an Ad Hoc reviewer for numerous journals. At the regional and state level, she is an invited speaker at professional meetings and serves on many University of Washington committees, including the Faculty Senate.

At the national level, our adjunct faculty member, Dr. Patrick Feeney is fulfilling a 3-year term with the American Academy of Audiology (AAA) as President-elect, President and Past-President. Dr. Feeney has also served as the Program Chair for the AAA convention, the Chair of the Research Committee for AAA and coordinator of the Division 6, Hearing Disorders, Research and Diagnostics of the American Speech-Language-Hearing Association (ASHA). A visiting faculty member, Dr. Thomas Littman has served on the Board of the American Academy of Audiology and on the Government Relations Committee for the Washington State Academy of Audiology. In addition, Kristiina Huckabay was chosen to attend the Future Leaders of Audiology Conference sponsored by the American Academy of Audiology to recognize leadership skills and provide additional support towards future leaders in the profession of Audiology. She is also a member of the Publications Committee for AAA.

Two of our faculty members (Martha Harney and Kristiina Huckabay) attended the “Gold Standards Summit: Transforming Clinical Education in Audiology”, sponsored by the American Academy of Audiology. This conference gathered representatives from 65 of the 73 Au.D. programs in the country to address critical issues affecting Au.D. training programs.

In order to fulfill the statewide and national shortage of pediatric audiologists, Richard Folsom, Ph.D. and Lisa Mancl, M.S. recently developed a program to increase pediatric training through the Pediatric Audiology Trainee Emphasis (PATE) for Doctor of Audiology students in the Department of Speech and Hearing Sciences at the University of Washington. A major focus of PATE will be involvement of long-term trainees in the LEND program at The Center on Human Development and Disability (CHDD). This specialized program will provide funded positions for Audiology trainees with the additional clinical training, didactic coursework, and research experience to prepare them to serve in leadership roles in their field. CHDD is one of the nation’s largest and most comprehensive interdisciplinary service, research, and training centers focusing on children and adults at risk, or who have established developmental disabilities. Audiologists currently are limited in their abilities and numbers to serve the number of infants and young children being diagnosed with hearing loss. The shortage of qualified pediatric audiologists is one of the leading barriers to diagnosis and intervention of hearing loss in infants and children. There are a number of reasons why infants do not receive audiologic follow-up, but one consistent challenge is the availability of qualified pediatric audiologists. Clearly, there is a need for more pediatric audiologists to serve the needs of this growing population, both in Washington State and nationally. The PATE program is our attempt to bridge this gap between this supply and demand issue.

International contributions:

The unit's international impact includes Martha Harney, who is serving on the Board of the Global Foundation for Children with Hearing Loss. As part of that role she is developing a teacher training program to be held at the Thuan Am Center for Disabled Children in South Vietnam in July, 2010. Additionally, Dr. Julie Bierer has been involved with publishing and reviewing for numerous peer reviewed publications in international journals and has been invited to present at international conferences. Additionally, Dr. Tremblay participated on the organizing committee for the International Symposium for Cochlear Implants in Children, 2009.

Dr. Tremblay has a long-standing collaboration with scientists at the University of Toronto (Rotman Research Institute) as well as visiting student(s) from Université libre de Bruxelles. These international collaborations have resulted in joint grants and publications.

PART B

UNIT-DEFINED QUESTIONS

The 4-year practice doctorate degree in Audiology (Au.D.) is offered by the Department of Speech and Hearing Sciences and was put into place because of new certification standards established by the American Speech-Language Hearing Association (ASHA), our national accreditation body. This new program completely replaced the Department's Masters of Science degree program in Audiology. The first year of the Au.D. program went into effect Autumn quarter of 2004.

There is no undergraduate component to the Au.D. degree and applicants need not have majored in Speech or Hearing; however, the Dept. of Speech and Hearing Sciences is actively involved with undergraduate students through course offerings, independent studies, and mentoring. Through these experiences, undergraduate students are introduced to information related to the theory, application, and profession of Audiology. For these reasons, the current academic review focuses on the Au.D. graduate degree program and as requested by the Graduate School, will yield information pertaining to the:

- 1. quality of instruction, research, and public service;*
- 2. value to students' general education and preparation for society;*
- 3. role within the University and effectiveness in fulfilling that role;*
- 4. resource requirements;*
- 5. future objectives and changes necessary to achieve them.*

To help determine where the unit is headed, what opportunities the unit wishes to pursue, and what goals the unit wishes to reach, it is important for us to identify our current strengths and weaknesses. Because the Au.D. program is a new degree for all institutions across the nation, one way to conduct this review is to compare our performance to our past ratings in addition to comparing our progress to peer programs across the nation. Traditionally, our peers have been

recognized according to rankings put forth by the US News and World Report – Graduate Schools - Audiology

(<http://grad-schools.usnews.rankingsandreviews.com/best-graduate-schools/top-audiology-schools/rankings/>). Currently the University of Washington is ranked #3 out of an existing 73 Audiology degree programs in the nation. For the past few decades, our Master’s degree program has been ranked in the top 5 so we will choose 4 additional top ranked schools for comparison. These institutions include: Vanderbilt University, University of Iowa, University of Texas-Dallas, Washington University – St. Louis.

With the recently mandated changes we, as well as our peer schools, have undergone significant changes. To determine the effectiveness of the changes made to our program, it is important to recalibrate ourselves so we know how we are doing compared to our peer institutions in terms of: 1) student recruitment and retention, 2) evaluating quality of instruction and student performance (didactic and clinical competency) according to student performance, external placements, and successful ASHA certification, 3) faculty workload distribution and use of alternative resources, 4) opportunities for student research and public service. These topics were identified because they are the areas in which all institutions are finding challenges and with the obtained information, we will be able to identify our strengths and weaknesses from which future objectives will be defined. Ultimately, our goal is to continue to be one of the strongest Au.D. programs in the nation.

#1) Student recruitment and retention

Our current Au.D. program is highly self-funded through Professional and Continuing Education with some professorial faculty and staff dependent on these fees. This funding situation puts some pressure on the Au.D. program to maintain a specific enrollment number in order to be sustainable. Because of the limited number of clinical rotation sites, UW Speech and Hearing Clinic and lab space, the current number of students admitted into our program each year is 12. A concern is that the UW Au.D. program has not substantially grown in terms of FTEs compared to other programs in the nation, and to do so would involve either raising tuition fees or increasing the number of students being admitted each year. Both of these options have the potential for a reduced return by pricing ourselves outside a competitive tuition range, and/or being unable to place students in clinical training environments. For these reasons, it would be helpful to know how many students are being accepted into our peer programs, the current cost of tuition, and if funding is being offered by the institution to help offset tuition expenses.

- a) What is the # of applications received at the UW since the inception of the Au.D. program?
- b) How do these numbers compare to the other top”5” schools in the nation?
- c) Compared to other top “5” institutions, how many students who are initially invited, accept?
- d) Compared to other top “5” institutions, how many in-state vs. out-of-state students accept?
- e) Compared to other top “5” institutions, how many students are accepted to the Au.D. program?

- f) Compared to other top “5” institutions, what is the total cost of an Au.D. degree?
- g) Compared to other top “5” institutions, what financial opportunities are offered to Au.D. students to offset the total cost of the Au.D. degree?

#2) Evaluating quality of instruction and student performance (didactic and clinical competency) according to student performance, external placements, and successful ASHA certification.

A challenge to all institutions has been to ensure that the additional curriculum put in place is effective at preparing students for a career in Audiology. This is especially true now that the 4th year training is conducted off-site. This means students need to meet a certain level of competency before being permitted to work with patients off-site. A challenge to all programs has been devising a way to evaluate student competency at different stages of the student’s program. Course grading systems are effective in identifying weak students in the didactic (scholastic) portion of the academic program; however, assessing clinical competency can be more subjective. In the last year, the UW faculty has put in place a series of practical/clinical exams to meet this challenge. It would be beneficial to determine if this evaluation method is achieving what it was intended to do, and how other programs have met this need. It would also be helpful to clarify how we define student competency (graduate rates, passing national praxis exams, etc) in relation to other programs. It is also important to acknowledge that it has been a challenge to expand the course curriculum with limited FTE’s. It would therefore be helpful to evaluate the content of our core curriculum, in relation to others, and determine if there are areas in need of improvement.

To evaluate our quality of instruction and determine where we are going in terms of didactic and clinic achievement:

- a) How many students graduate from our program relative to the other top “5” institutions each year?
- b) How many students successfully complete the ASHA praxis certification exam each year?
- c) How does each institution define and evaluate clinical competency?
- d) How does each institution define scholastic competency?
- e) How does our 4-year curriculum review compare to other institutions?
- f) Review progression of Au.D. courses to determine if the order/progression of clinic and didactic are optimal in order to prepare students for external rotations.

#3) Faculty workload distribution and use of alternative resources.

The structure of many Au.D. programs has changed in order to meet the new ASHA standards and accommodate the increased number of students and courses. To accommodate the increased number of students and curriculum many institutions have hired additional faculty, some programs have closed, and others have found alternative resources to compliment the existing staff. Given our limited number of FTE’s it would be helpful to compare how other programs

have accommodated the increased need for clinical tracking, student placement, and classroom teaching. Compared to other top “5” programs:

- a) How many courses are taught by faculty within and outside of the home department?
- b) Is on-line instruction available to students and are there efforts to expand web-based technology for distance learning?
- c) Are short courses used to fill voids in instruction?
- d) Are specialty certification programs offered?
- e) Are financial resources allocated to supplement teaching needs such as guest lecturers?
- f) What is the teaching load of all faculty members?
- g) Do clinical experiences take place within the home department, or within the community, at each stage of the program?
- h) How is student supervision managed?
- i) How are state-of-the-art materials and equipment, for student training, funded?
- j) Given the current and anticipated shortage of Audiologists, is there room for program expansion in terms of space and funding?
- k) What is the composition of faculty in terms of: a) professorial vs. lecturer, b) full-time vs. part-time.
- l) What is the department climate in terms of cultural diversity?

#4) Research and Outreach

The Department of Speech and Hearing Sciences prides itself as being one of the largest Ph.D. training programs in our profession. Within this environment, a perceived strength of the UW’s Au.D. program is that Au.D. students have the opportunity to be exposed and/or participate in research. It is a strength that we believe separates our Au.D. program from others. It is also a mechanism for recruiting new Ph.D. students, a mission that is very important considering the well publicized shortage of clinician scientists (Au.D./Ph.D.). With that said, given the recent changes to programs across the country, it would help us to know what research opportunities are currently being offered to students in other programs. This point is important because it has the potential to impact student recruitment into both Au.D. and Ph.D. programs. To maintain this standard, and to ensure that this practice can be maintained, it would be helpful to determine if we are still providing exceptional research opportunities compared to our peers. In addition to creating and sharing research ideas, an important component to every training regime is translating theory into practice and public service. Therefore, another educational opportunity for our students is creating the link to outreach and service within our community. Given our FTE status, this has been an area we have been challenged to meet consistently. Currently we provide outreach within the University (education and training of other departments), as well as through local affiliations with the Lion’s Club and Special Olympics. However, outreach aimed at the local aging community would give students the ability to familiarize themselves with the living arrangements and communication demands of seniors while potentially attracting new clientele for clinical service. Increased clinical services can result in additional revenue. This point is important because increased profits could be used to generate additional FTEs. To

assess how we are doing in terms of outreach and research, and if new ideas can be gleaned from peer programs, it would be helpful to know:

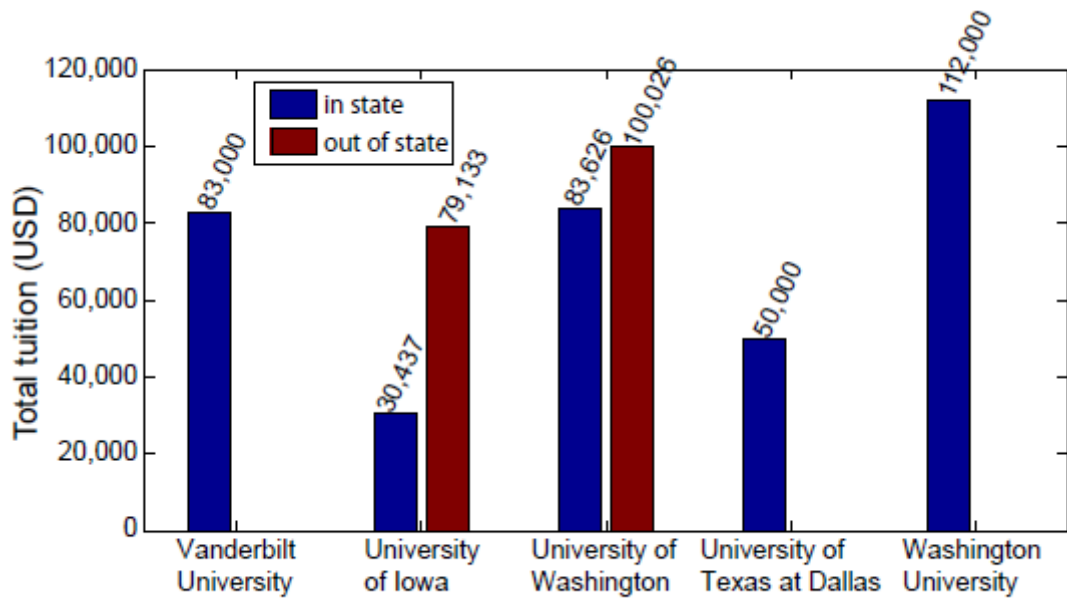
- a) How are students involved in research?
- b) How many students continue to pursue advanced training in research?
- c) How is public service and outreach integrated into student training?
- d) Are students evaluated on their service?

SECTION IV: ANSWERS TO UNIT DEFINED QUESTIONS AND IMPLICATIONS FOR FUTURE DIRECTIONS AND GOALS

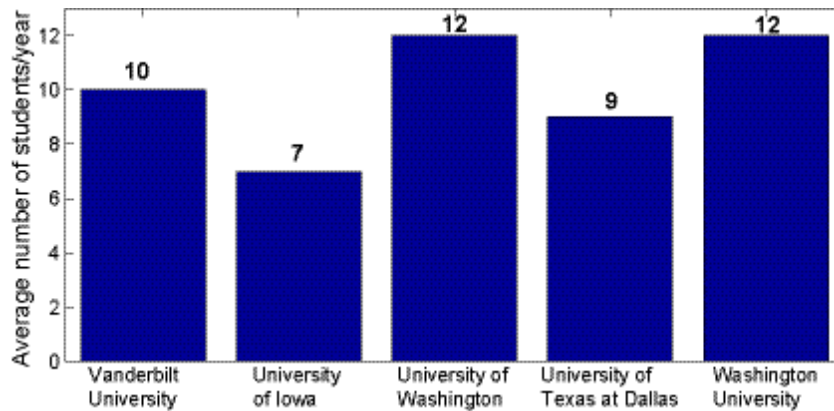
Unit defined questions were reviewed by peer institutions and returned to members of the Audiology Interest Group. In some cases, information was not available but for the most part answers were clear and concise. If needed, answers were confirmed with representatives from the peer institution. A spreadsheet, summarizing the data, was constructed and comparisons were discussed among Audiology IG members. For the most part, the UW program is comparable to peer institutions so below we identify and discuss only areas of discrepancy from our ten year plan.

No significant areas of weakness were identified in section #2 which addressed ‘evaluating quality of instruction and student performance (didactic and clinical competency) according to student performance, external placements, and successful ASHA certification’. We in fact appear to provide more student assessments than average with our two clinical comprehensive examinations and our written comprehensive examinations. This is also true for section #4 in terms of student research experience. **Our mentored 10-credit project exceeds the research requirements of our peer institutions.**

Particularly noteworthy was the information gleaned from sections #1 and #3. **We are the most expensive out of state program for tuition, with little opportunity of providing students with funding.** We are the 2nd most expensive program among our peers in terms of in state tuition. We are competitive in terms of offering hourly work study positions, but are not competitive in offering tuition waivers/stipends. **We are one of the largest programs, with a typical admission of 12 students per year.**

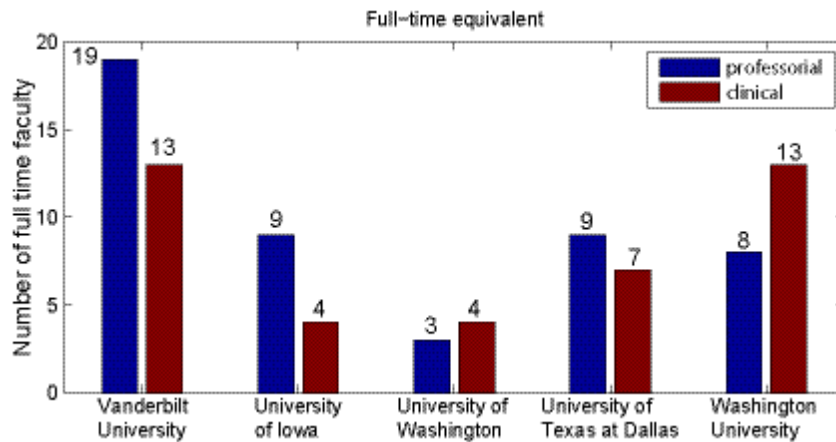


Tuition expenses for each peer institution.



Number of students enrolled in each Au.D. program.

Despite being one of the largest programs in terms of students served, we are the smallest in terms of Faculty FTEs. **The data show a stark contrast in terms of the number of professorial faculty (9-18 across the 4 institutions) as compared to the University of Washington (3).** With 4 clinical faculty FTEs we fall on the low end of the range of clinical FTEs in other programs (range 3.5-15). The clinical faculty discrepancy might in part relate to where the degree is housed because more clinical faculty are employed when the AuD program is part of an existing medical center. At the UW, our teaching clinic is housed in the SPHSC department and is separate from the medical school.



Number of FTEs at each institution.

With a shortage of faculty it is understandable that we are more heavily reliant on external instructors to teach required courses within the Au.D. program. At the UW, 35% of the courses are taught by external instructors while some of our peer programs use outside instructors to cover approximately 10 to 14% of their coursework. Two programs do not use outside instructors at all. Despite the FTE difference between institutions, we continue to offer a competitive program that meets and exceeds national standards. With that said, compared to our peers we have identified desired areas to expand our curriculum to broaden our Au.D. students knowledge and increase our competitiveness with other programs. These areas include: specialty training in pediatric auditory rehabilitation and electrophysiologic testing.

FUTURE DIRECTIONS AND GOALS

The Audiology professorial faculty shortage impacts many aspects of our program that go beyond outsourcing instruction. It limits the ability to mentor the research component of the Au.D. degree, and limits the number of people who can apply for NIH and NSF grants that can be used to support all aspects of the Au.D. program. It also presents a heavy burden of time taken away from research in order to administer the Au.D. program. These final two points are important because as previously described; statistics show an increasing demand for Audiologists. While some institutions continue to grow and report having adequate space and facilities to accommodate growth, the UW Audiology program does not. **Our most pressing goal is to fill the current professorial vacancy which will provide the opportunity to increase revenue through indirect costs (NIH/NSF grants) and redistributing workload amongst current faculty.** While it is a goal to increase the number of Professorial FTEs within the Au.D. program, we recognize that financial support through the College of Arts and Sciences is limited at this time. Growth will therefore be dependent on increased revenue sources either through student tuition and/or revenue from clinical services.

After conducting this assessment and reviewing tuition costs at our peer institutions, **we no longer believe raising tuition costs is an option.** We need to find alternative ways of increasing revenue and redistributing the work load on existing faculty. Some options include:

- 1) Revisiting the Au.D. research project. This aspect of the program is a valued strength that separates the UW from our peers, given the rich research environment here on the UW campus.

But the requirement of having a UW SPSHSC faculty member serve on a committee for each of the 40 enrolled students is not feasible. **2)** Evaluate ways in which the Audiology community might be more involved in the training of UW Au.D. students. If it is unlikely that the number of FTEs within the Audiology program will grow to be competitive with other programs, then perhaps we can enlist the support of adjunct faculty in allied UW programs. Possibilities include sending students to outside placements (e.g., UW Otolaryngology, Children's hospital) earlier in their program. A benefit to the students would be experiencing a greater diversity of patients and disorders earlier in their training while freeing up SPSHSC clinical faculty to take on more tasks that would facilitate program growth. Two targeted areas for growth are electrophysiology and pediatric rehabilitation. **3)** After reviewing other peer programs, one goal that emerged is to develop and offer a specialty certification in pediatric habilitation. We currently receive funding through a LEND program that could be used for this purpose. With the addition of a pediatric habilitation specialist on staff, we could increase this component of our training program and provide funding for students who partake in this certification program. This addition might also be a method for increasing Au.D. revenue through NIH grants, outreach, private and state funds (e.g., United Way, Dean's fund, and other philanthropic means). **4)** Assuming the ability to increase professorial FTEs it may be possible to increase the number of students, which in turn would increase tuition revenue. **5)** Another source of revenue is through clinical services and the hearing aid dispensary. It will be a delicate balance to free up clinical supervisors time in a way that does not impact clinical revenue. For this reason, it will be important to encourage growth in a way that is revenue generating. Examples include increasing the number of billable services as well as revisiting current UW SPSHSC Au.D. billing practices.

To ensure that the UW Au.D. program continues to be a top ranked training institution, the following goals have been set.

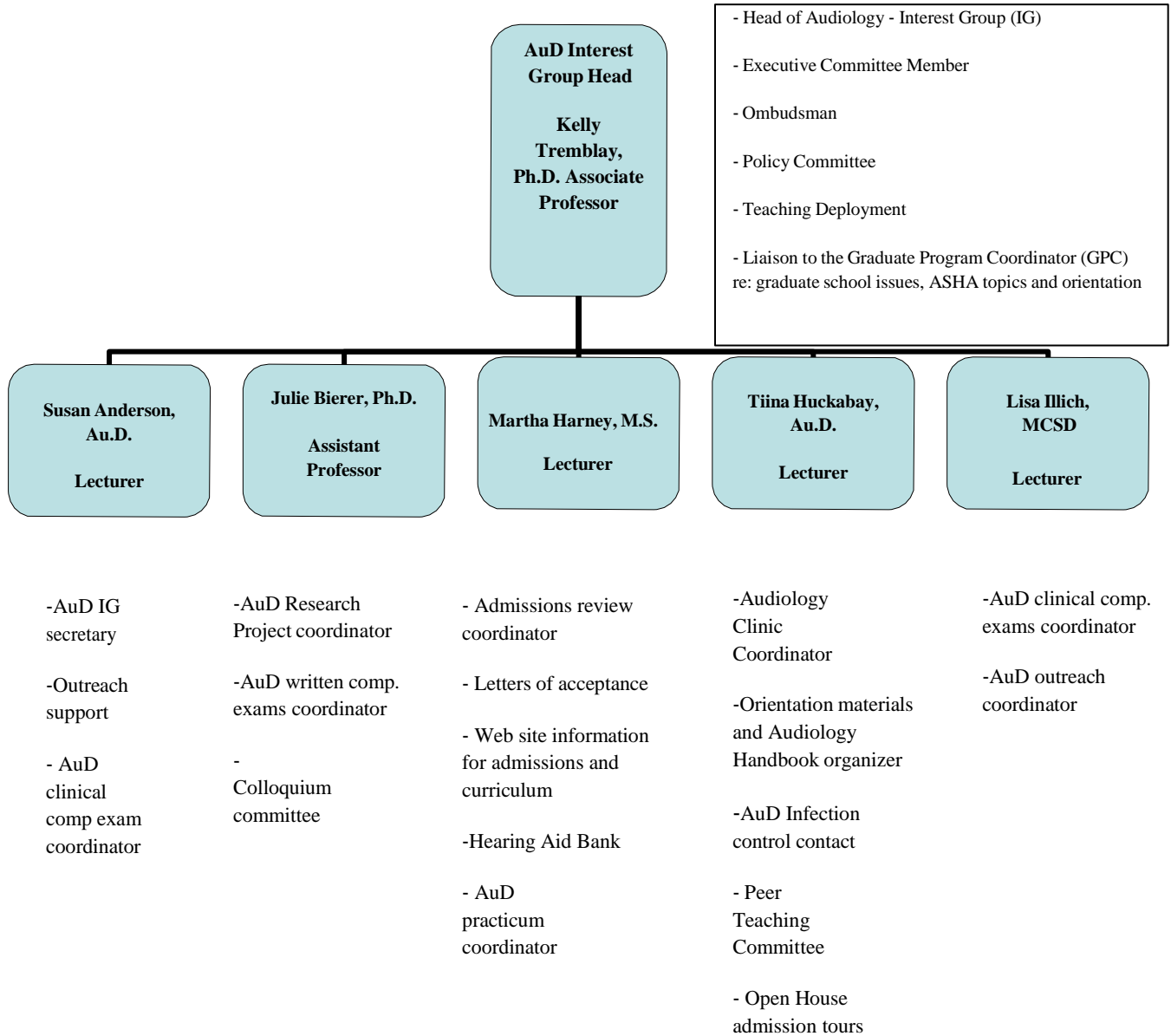
GOALS:

- Conduct curriculum review every 2nd year to ensure national standards are being met.
- Expand professorial faculty by recruiting a Ph.D. level person who can provide training and research in the area of pediatric rehabilitation and amplification
- Expansion of clinical services to include electrophysiologic testing and additional training and clinical experience with pediatric aural habilitation
- Obtain updated instrumentation such as electrophysiologic and otoacoustic emissions equipment
- Outreach to further expand our client base within the UW Speech and Hearing Clinic
- Further our alliance with UW affiliates (Harborview, Seattle Children's Hospital and UW Medical Center) to facilitate real world clinical experiences earlier in the student's clinical program
- Continue to strengthen our development funding opportunities to recruit and sustain top students to our Au.D. program
- Annually review billing practices to ensure appropriate processes for a dynamic teaching clinic
- Determine a way to ensure tuition expenses remain at a competitive level as compared to other institutions in the nation

Appendix A

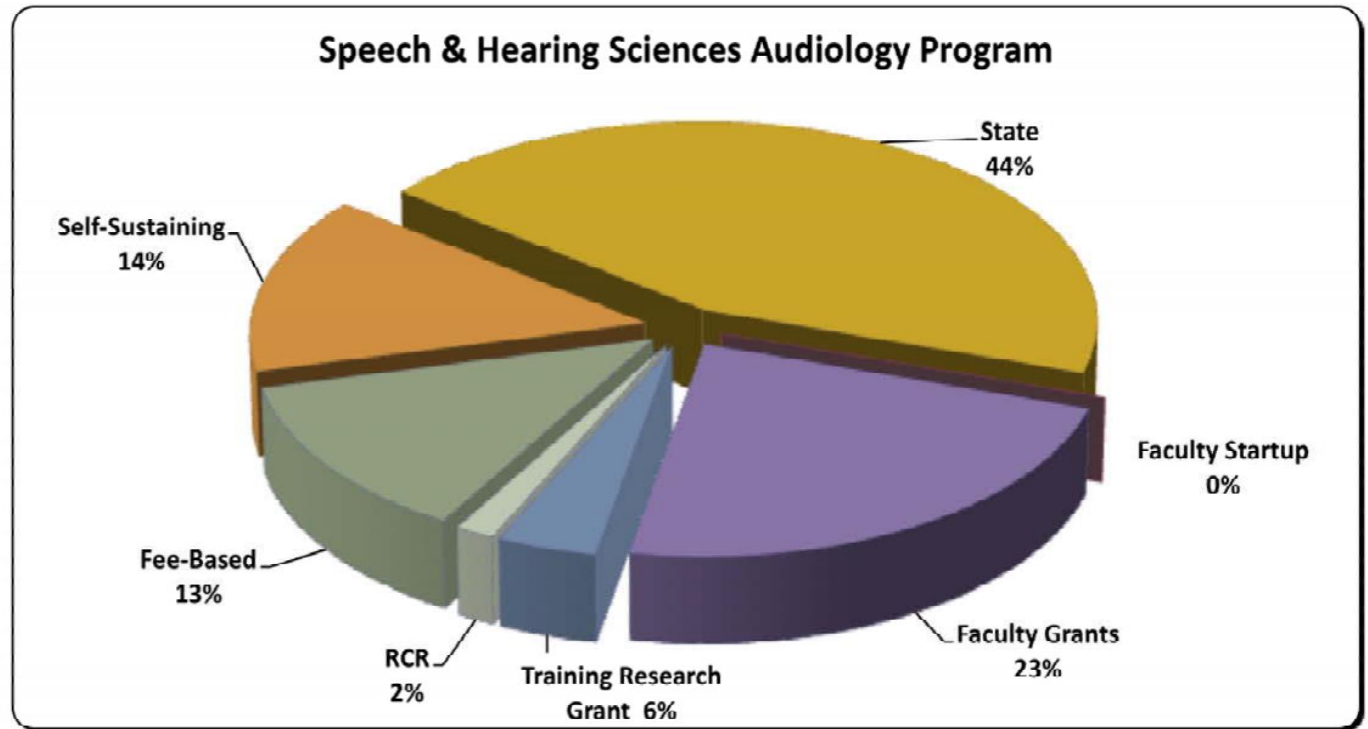
2009-2010 Au.D. Administrative Organization

Richard Folsom, Ph.D.
Department Chair



Appendix B.1. Department of Speech and Hearing Sciences funding sources for Doctor of Audiology Program. Budget summary for **2009-2011 biennium** (actual and projected).

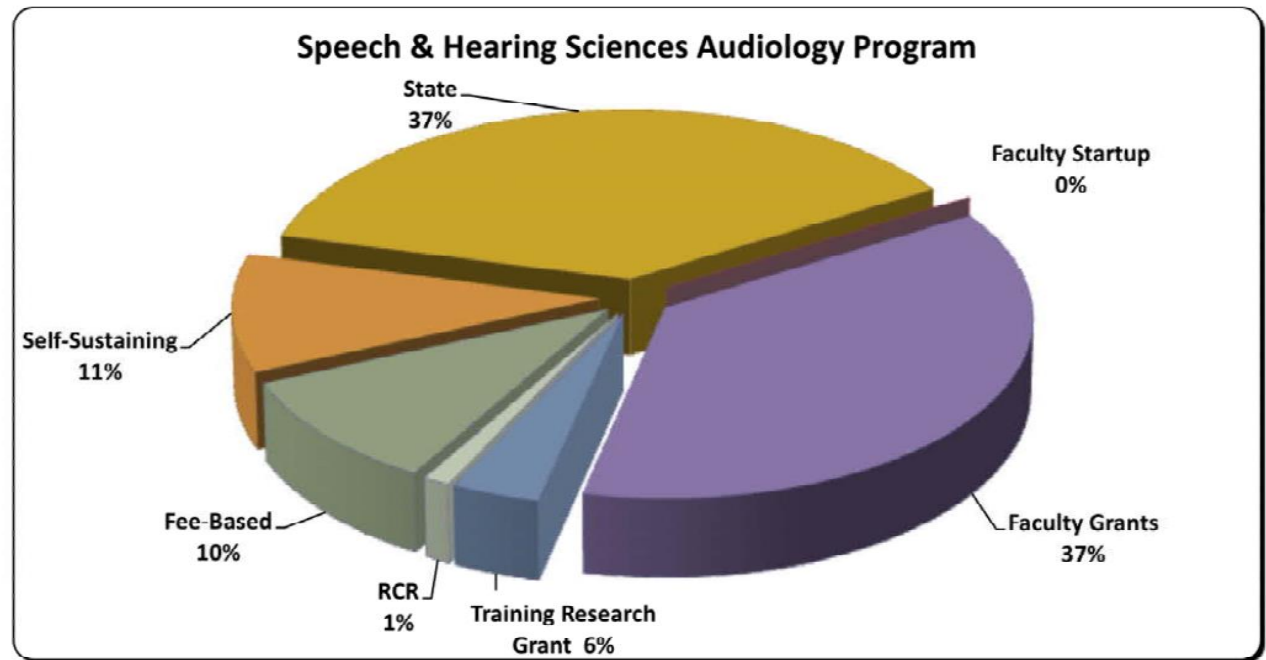
Funding Source	Amount
Fee-Based	\$ 341,402
Self-Sustaining	\$ 384,433
State	\$ 1,186,911
Faculty Startup	\$ -
Faculty Grants	\$ 607,807
Training Research Grant	\$ 103,595
RCR	\$ 41,031



Budget Summary: 2009 - 2011 Biennium

Appendix B.2. Department of Speech and Hearing Sciences funding sources for Doctor of Audiology Program. Budget summary for **2007-2009 biennium** (actual).

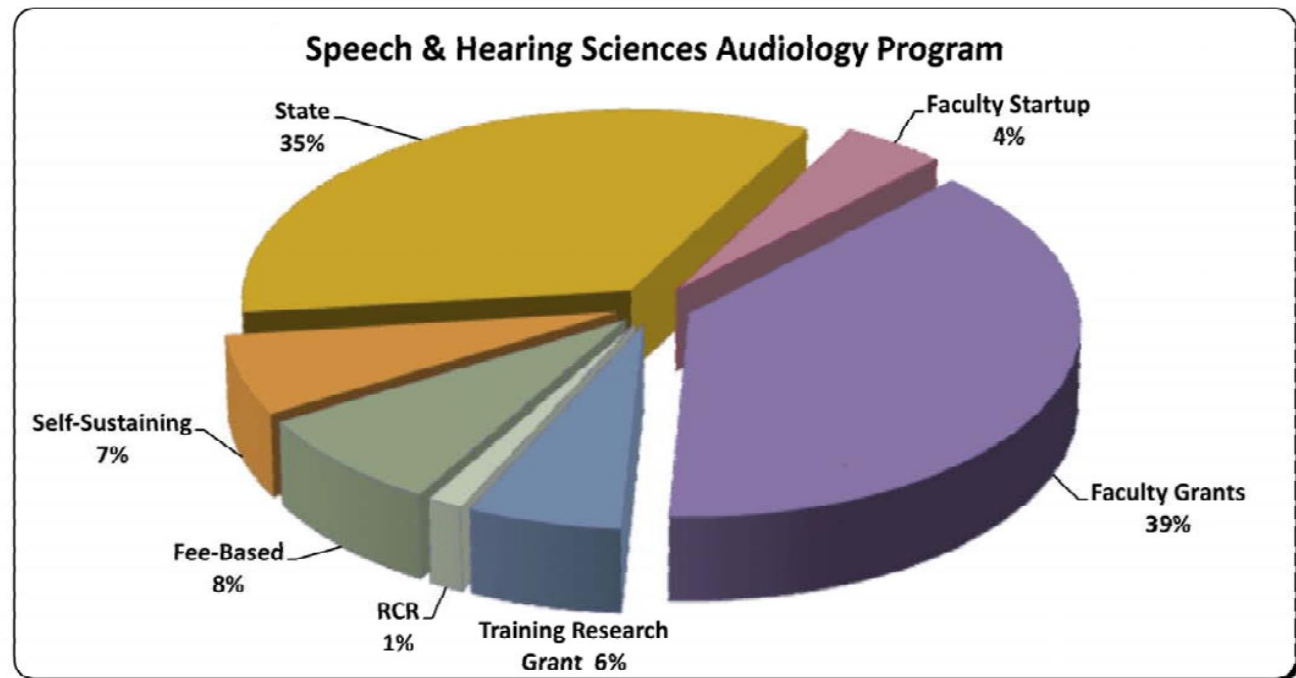
Funding Source	Amount
Fee-Based	\$ 355,807
Self-Sustaining	\$ 373,236
State	\$ 1,315,772
Faculty Startup	\$ -
Faculty Grants	\$ 1,312,868
Training Research Grant	\$ 131,473
RCR	\$ 39,623



Budget Summary: 2007 - 2009 Biennium

Appendix B.3. Department of Speech and Hearing Sciences funding sources for Doctor of Audiology Program. Budget summary for **2005-2007 biennium** (actual).

Funding Source	Amount
Fee-Based	\$ 250,616
Self-Sustaining	\$ 209,101
State	\$1,076,275
Faculty Startup	\$ 140,000
Faculty Grants	\$ 1,197,707
Training Research Grant	\$ 188,501
RCR	\$ 44,000



Budget Summary: 2005 - 2007 Biennium

Appendix B.4. Department of Speech and Hearing Sciences budgeted expenditures (actual and projected) for Doctor of Audiology Program.

Expenditures summary for **2005-2007, 2007-2009, and 2009-2011 biennia.**

Audiology State Funds: Permanent & Temporary*					
Object Code	Description	Biennium 05-07	Biennium 07-09	Biennium 09-11	
01-10	Faculty Salaries	\$722,683	\$933,882	\$804,990	
01-30	Auxiliary Teaching Staff Salaries	\$89,492	\$95,877	\$98,884	
01-60	Classified Staff Salaries	\$105,111	\$120,870	\$85,630	
01-70	Professional Staff Salaries	\$96,855	\$102,672	\$151,737	
01-80	Temporary Staff Salaries	\$6,725	\$13,085	\$7,781	
03	Other Contractual Services	\$31,178	\$32,987	\$27,641	
05	Supplies and Materials	\$16,595	\$10,248	\$10,248	
06	Equipment	\$7,636	\$6,151	\$0	
Totals		\$1,076,275	\$1,315,772	\$1,186,911	
*centrally supported benefits not reflected in these numbers					

Appendix C: Information about Faculty

SPHSC Professorial Faculty

Bierer, Julie; assistant professor; faculty; cochlear implants, psychophysics; Affiliate:
Bloedel hearing Research Center

Folsom, Richard; professor; faculty; pediatrics, auditory evoked potentials Adjunct
Professor: Pediatrics; Affiliate: Bloedel hearing Research Center

***Souza, Pamela**; associate professor; faculty; hearing aids, psychoacoustics
Affiliate: Bloedel hearing Research Center

Tremblay, Kelly; associate professor; faculty; adult assessment, brain plasticity
Affiliate: Bloedel hearing Research Center

*resigned 2009; position to be filled 2010

SPHSC Clinical Faculty

Anderson, Susan; lecturer; faculty; adult assessment, amplification

Huckabay, Kristiina; lecturer; faculty; adult assessment, amplification

Harney, Martha; lecturer; faculty; adult assessment, aural rehabilitation **Illich,**

Lisa; lecturer; faculty; aural rehabilitation

Mancl, Lisa; professional staff; staff; pediatric assessment, auditory evoked potentials

Appendix D: HEC Board Summary

A. Documentation of continuing need, including reference to the statewide and regional needs assessment

The need for this degree remains unchanged from the rationale established in the 2002 document to create the AuD program. The 4-year practice doctorate degree in Audiology (Au.D.) is offered by the Department of Speech and Hearing Sciences to meet new certification standards established by the American Speech-Language Hearing Association (ASHA), our national accreditation body. The Au.D is now the nationally recognized entry degree for audiology and therefore this new program completely replaced the Department's Master's of Science degree program in Audiology. The first year of the Au.D. program went into effect Autumn quarter of 2004.

There is no undergraduate component to this Au.D. degree and applicants need not have majored in Speech or Hearing; however, the Dept. of Speech and Hearing Sciences is actively involved with undergraduate students through course offerings, independent studies, and mentoring. Through these experiences, undergraduate students are introduced to information related to the theory, application, and profession of Audiology.

Impact at regional, statewide, national and international levels

The Doctorate of Audiology program and its faculty members at the University of Washington contribute significant regional, statewide, national and international impact in the profession of Audiology. Our goal is to continue our contributions in the area that are outlined in this section.

The National Institute on Deafness and Other Communication Disorders (NIDCD) reports at least 36 million Americans have some degree of hearing loss and only 1 out of 5 individuals in need of amplification actually wears amplification. Additionally, with the "Baby Boomer" generation reaching a point of age-related hearing loss, our profession is experiencing an increased demand for our services. Unfortunately, our profession is not equipped to meet the increased demand for our services as we are facing shortages in both Au.D. and Ph.D. professionals. An additional challenge facing our profession is the number of audiologists reaching retirement age. According to Freeman (AudiologyToday, Nov/Dec, 2009, p. 51) "approximately 6000 audiologists (38% of audiologists) will reach retirement age in the next decade." Freeman (2009) also reports that our discipline is training approximately 5500 clinical audiologists each year. The increased demand for our services coupled with a decrease in the number of audiologists reflects the continued demand for AuD training programs. Our program provides an opportunity for students to obtain an Au.D., a Ph.D. or a combined Au.D./Ph.D. In addition, our program is the largest PhD training program in the country for Speech and Hearing Sciences. With the introduction of the combined Au.D./Ph.D. program, several students have enrolled in this joint degree program. Our impact nationally is providing a quality program which continues to fill the pipeline of qualified audiologists and researchers to meet the rising demand of the hearing impaired population.

At a regional level, the University of Washington is the only program in Washington state granting an Au.D. program. Undergraduate degrees are available in Communication Disorders/Speech and Hearing Sciences at Western Washington University, Washington State University, Eastern Washington University, Portland State University and University of Oregon. Our program provides an opportunity for interested students to remain in the Northwest to complete their Au.D. training, at a program ranked in the top 5 nationally. We are the only Au.D. granting program on the west coast, aside from one Au.D. program in California and one Au.D. program in Idaho. The cross-dependencies of the in-state and out of state programs provide geographical diversity in our Au.D. students. The fact that we have a variety of in-state and out of state students contributes to our success in placing these students in their fourth year rotation.

In order to fulfill the statewide and national shortage of pediatric audiologists, our unit recently developed a program to increase pediatric training through the Pediatric Audiology Trainee Emphasis (PATE) for Doctor of Audiology students in the Department of Speech and Hearing Sciences at the University of Washington. As indicated earlier, a major focus of PATE will be involvement of long-term trainees in the LEND program at The Center on Human Development and Disability (CHDD). This specialized program will provide funded positions for Audiology trainees with the additional clinical training, didactic coursework, and research experience to prepare them to serve in leadership roles in their field. CHDD is one of the nation's largest and most comprehensive interdisciplinary service, research, and training centers focusing on children and adults at risk or who have established developmental disabilities.

B. Assessment information related to expected student learning outcomes and the achievement of the program's objectives

As indicated in more detail elsewhere in this report, students entering this program pass several benchmarks for assessing outcomes and measuring competency. These assessments include the clinical comprehensive exams, a written comprehensive exam, a mentored research project and acquisition of clinical knowledge and skill areas. The program has had a high completion rate of approximately 95%. All students who have completed the program have gone on to pass the national Praxis exam in Audiology.

C. Plans to improve the quality and productivity of the program

As an outcome of this self-study, our program has identified the following 10 year goals that we believe will enable us to remain competitive and sustainable as a center of excellence in Au.D. training:

- Conduct curriculum review every 2nd year to ensure national standards are being met.
- Expand professorial faculty by recruiting a Ph.D. level person who can provide training and research in the area of pediatric rehabilitation and amplification

- Expansion of clinical services to include electrophysiologic testing and additional training and clinical experience with pediatric aural habilitation
- Obtain updated instrumentation such as electrophysiologic and otoacoustic emissions equipment
- Outreach to further expand our client base within the UW Speech and Hearing Clinic
- Further our alliance with UW affiliates (Harborview, Seattle Children’s Hospital and UW Medical Center) to facilitate real world clinical experiences earlier in the student’s clinical program
- Continue to strengthen our development funding opportunities to recruit and sustain top students to our Au.D. program
- Annually review billing practices to ensure appropriate processes for a dynamic teaching clinic
- Determine a way to ensure tuition expenses remain at a competitive level as compared to other institutions in the nation

Number of instructional faculty, students enrolled, and degrees granted over last three years (Autumn-Summer)

	2006-07	2007-08	2008-09
FTE Instructional Faculty	7.6	8.6	8.6
FTE Graduate Teaching Assistants	4.5	4.5	4.5
Degree Program	Au.D.	Au.D.	Au.D.
Headcount of enrolled students	30	30	32
Number of Degrees Granted	0	0	0

*There have been no graduates of the four-year Au.D. program to date. The first cohort for the four-year program began in Fall 2006 and will graduate in Spring 2010.