



UNIVERSITY OF WASHINGTON

The Graduate School

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To: Phyllis Wise, Provost
Ana Mari Cauce, Executive Vice Provost
Office of the Provost, Box 351237

From: Suzanne Ortega, Vice Provost and Dean
Melissa Austin, Associate Dean for Academic Programs

RE: Astrobiology Graduate Certificate Review

At its meeting of March 2, 2006, the Graduate School Council met with members of the team that reviewed the Astrobiology Graduate Certificate Program (Professor Suzanne Hawley, Astronomy Department, and Professor Caroline Harwood, Department of Microbiology), Ronald S. Irving (Divisional Dean for Natural Sciences, College of Arts and Sciences), and Woodruff T. Sullivan (Professor, Astronomy Department and Director of the Astrobiology Program)

The Graduate Certificate Program in Astrobiology was approved by the Board of Regents in July, 2001, and is supported by the University Initiatives Fund (UIF). This was the first review of the program. The site visit was conducted on November 1-2, 2006, at which time the review committee met with Program faculty, students, and staff. The review committee evaluated both the Graduate Certificate and the UIF funding from the College.

Astrobiology is an emerging discipline that seeks to understand the origin and evolution of life on Earth and the likelihood of life at other locations in the Universe. The review committee reported that the University of Washington Astrobiology Program is the leading program in this discipline both nationally and internationally. It provides the broadest educational training, has the largest student enrollment, and has faculty participation from the widest variety of departments and colleges compared to programs at any other institution worldwide. Of particular note is the major participation of Oceanography faculty and students in the program, bringing the unique UW expertise in extreme ocean environments to the forefront of astrobiological research. With a National Science Foundation IGERT grant (recently renewed for a second five years) supporting graduate training and a NASA Astrobiology grant supporting student and faculty research, the

program is obviously successful in a very competitive funding environment. Perhaps the best benchmark is the excellence of the students, who have received many awards at conferences, have published numerous significant papers in prestigious journals, and have established a truly interdisciplinary culture resulting in several collaborative student efforts across departments and colleges. The students now identify themselves as astrobiologists, and these UW astrobiologists are already the leaders in the first generation of scientists to be trained in this new discipline. The committee found it “inspirational” to talk with the program’s graduate students. The challenge for UW is to maintain and promote the excellence that has been achieved.

The recommendations of the committee are:

1. It is essential to replace the vacant UIF faculty position with a new astrobiology faculty member as soon as possible. Further, since the record of mentoring and support for astrobiology is very uneven across the departments in the College of Arts and Sciences, and because the new hire will need to take an immediate leadership role in the Program, the committee recommends that the hire be at least at the Associate Professor level (i.e. with tenure).
2. The Graduate Certificate Program in Astrobiology should be continued. It is an excellent Program that has achieved national and international recognition, and demonstrated substantive success for its students. The committee recommends that the Program be reviewed again after another five-year term, primarily to assess the health of the Program after IGERT funding has ceased.
3. The University should identify an administrative body above the College level that has the authority to negotiate between separate units to ensure equity in faculty compensation. In addition, this body should secure from participating units commitments that are commensurate with the units’ involvement in the Program, advocate for the Program in University-level discussions of funding and development, and should be involved in the discussion of the proposed change to a Joint PhD program.
4. The educational opportunities afforded by teaching Astrobiology at the undergraduate level (115 and 300 level) are very important for the major societal issue of scientific literacy. Resources should be found to support additional TA positions for ASTBIO 115 and to teach a 300 level ASTBIO class. Teaching these classes, which benefit general education or broad science interests, should not be an overload but should be subject to the workload agreements in item 3 above.
5. The development plan to provide graduate student fellowships in future years is a worthwhile effort and should be incorporated into the overall University Development effort.

During the Council discussion, the Director noted that the College has authorized funds for the vacant faculty position to be filled. He said that if the UW is serious about supporting interdisciplinary programs, it needs to provide the administrative structure to sustain them. He noted that Astrobiology has been successful in getting the IGERT grant renewed for another five years. However, these grants can be renewed only once, so the Program will start considering development efforts to increase funding. The Divisional Dean noted that the College has invested in two faculty positions, and it would seriously consider requests

for additional faculty positions. Although there is room for growth, student funding also needs to be considered. During the Council discussion, the possibility of Astrobiology becoming an interdisciplinary department or a research center was discussed, along with the challenges this would pose to maintaining a vibrant interdisciplinary venture. The Council noted, and the Director agreed, that postdoctoral fellows would be a valuable addition to the program.

For more detailed information on the review of this program, please see the Review Committee's written report, submitted on December 13, 2005, and the response from the Director, submitted on February 13, 2006, and revised on March 3, 2006.

As noted above, the review committee recommended continuation of the Graduate Certificate in Astrobiology, with the next review to be conducted in the 2010-2011 academic year. The Graduate School concurs with this recommendation.

cc: David C. Hodge, Dean, College of Arts and Sciences
Ronald S. Irving, Divisional Dean for Natural Sciences, College of Arts and Sciences
Woodruff T. Sullivan, Professor, Astronomy Department
Members of the Graduate School Council
Members of the Astrobiology Review Committee
David Canfield-Budde, Academic Program Specialist, The Graduate School