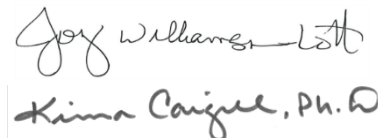


February 20, 2024

To: Dianne Harris, Dean, College of Arts & Sciences
Dan Pollack, Divisional Dean of Natural Sciences, College of Arts & Sciences

From: Joy Williamson-Lott, Dean of the Graduate School
Kima Cargill, Associate Dean for Academic Affairs, Graduate School



RE: Review of the Astrobiology Program (2022-2023)

This memorandum outlines the Graduate School's final recommendations from the Astrobiology Program academic program review. Detailed comments on the review can be found in the documents that were part of the following formal review proceedings:

- Charge meeting between review committee and administrators (January 9, 2023)
- Self-Study (April 24, 2023)
- Site visit (May 1-2, 2023)
- Review committee report (May 22, 2023)
- Astrobiology Program response to the report (October 17, 2023)
- Divisional Dean of Natural Sciences comment (December 10, 2023)
- Graduate School Council consideration of review (January 4, 2024)

The review committee consisted of:

- Randie Bundy, Associate Professor, School of Oceanography, University of Washington (Committee Chair)
- Loren Williams, Professor, School of Chemistry and Biochemistry, Georgia Institute of Technology

The Astrobiology Program offers a Graduate Certificate in Astrobiology. Additionally, the Astrobiology Program leads the implementation, coordination, and shared oversight of a "Dual-Title PhD," which consists of Astrobiology degree options embedded within departmental PhD programs and recognition of both fields of study on student transcripts. These degrees are awarded by each department in close coordination with the Astrobiology Program.

Dan Pollack, Divisional Dean of Natural Sciences in the College of Arts & Sciences and Victoria Meadows, Director of the Astrobiology Program, attended a Graduate School Council meeting to discuss outcomes from the review. The Council reviewed all documents from the review prior to the meeting. A summary of the review documents and the Graduate School Council discussion are attached to this memo.

Graduate School Council Recommendations

The Graduate School Council commends the Astrobiology Program on the strength of its programs, faculty, and students. After discussion, the Council recommended the following:

- Full academic program review in 10 years (2032-2033)

We concur with the Council's recommendations.

cc: Tricia Serio, Provost and Executive Vice President for Academic Affairs
Patricia Moy, Associate Vice Provost for Academic and Student Affairs, Office of the Provost
Jackie Belanger, Director, Libraries Assessment and Planning, University of Washington Libraries
Victoria Meadows, Director of the Astrobiology Program and Professor of Astronomy
Review Committee Members
GPSS President

Summary prepared by the Graduate School Director of Academic Program Review

Summary of Review Committee Report:

In its report, the review committee stated:

- The Astrobiology Program at the University of Washington is considered the premier graduate Astrobiology Program in the US and is an outstanding program by any measure.
- The program maintains strong connections with NASA, resulting in numerous benefits for the university including unique access to funding, research facilities, resources, training, and expertise.
- The committee does not identify urgent or systemic problems with the program overall, yet an opportunity now exists for the program to reimagine its funding structure going forward to ensure its continued success.
 - The program's cross-disciplinarity is a strength; it encompasses 11 departments and 4 colleges, engaging 28 faculty and 34 graduate students. However, fostering a cohesive funding vision for such a diverse program involves engagement across numerous colleges and departments with different priorities and visions.
 - The current program director has been largely responsible for leading and funding the program over the past 12 years and will be stepping down from her leadership role in the next 3 years.
- A missing element of scholarship of the program is lack of microbial ecology expertise. The committee recommends the program recruit a faculty member within Biology, Chemistry, Engineering and/or Oceanography to join the program.
- The current undergraduate course offered by the program (ASTBIO 115) is important for providing mentoring and teaching opportunities for graduate students, serving as an effective public face of the program to undergraduates, gauging interest in subject matter and informing future hiring efforts and teaching needs. The class appears to be popular but is currently under-utilized and under-subscribed due to the complicated nature of its numerous cross-listings and departmental capping by various departments (Earth and Space Sciences, Oceanography, and Biology). The committee recommends that the way this class is cross-listed and capped for students be reconsidered.
- Postdocs could be better entrained into the program. The review committee encourages the program to continue to give opportunities to postdocs to teach, mentor, and take advantage of professional development and leadership roles.
- The committee suggests that the University capitalize on the national and international recognition of the UW Astrobiology program and energize the Astrobiology faculty to raise the profile of the program to their department chairs, UW Advancement, and Deans to work together to find a future funding model that provides stability to the program beyond an individual PI's grant and matching funds.

Summary of Unit Response

In its response to the review committee report, the Astrobiology Program indicated:

- Strong agreement with the committee’s assessment on the threat posed by the lack of stable funding for this program.
- In the 25 years since the founding of the Astrobiology program, the astrobiology community has grown and obtained national prominence. The maturation of the field was driven in no small part by UW Astrobiology faculty, postdocs, students, and alumni.
- Today, 60% of the funds required to run the program are obtained from the Director’s competitive grant and matching funding. The program looks forward to working with relevant chairs, deans, the Graduate School, and the provost to find a better solution.
- Agreement and comments on each of the specific recommendations of the review committee:
 - *Recruit a faculty member to the Astrobiology Teaching Faculty with Microbial Ecology Expertise.* The program will continue to work with the deans of the College of Arts and Sciences and the College of the Environment to identify a potential solution. The program expects one of its faculty members will retire in the next three years, which may create an opportunity to do so.
 - *Improve the Cross-Listing and Capping of Enrollment for ASTBIO115.* Since receiving the committee’s report, the program has addressed this issue with the UW Curriculum Office.
 - *Continue to Integrate the Postdocs into the Program.* The program will enhance postdoc belonging and opportunities for professional development and networking. These include opening lines of communication through a Slack channel, inviting postdocs to attend classes and workshops, guest and co-teach, and increase opportunities to interact with and network with Astrobiology faculty.
 - *Develop a Stable Future Funding Model.* The program states that the majority of its funding relies on the director winning competitive research proposals, which is not a sustainable funding model. The program is exploring additional avenues for stable funding sources including learning about other interdisciplinary programs’ funding models. The program will follow the review committee recommendation to raise the program’s profile to relevant chairs and deans. To further explore possible funding avenues and coordinate the advocacy required to find program allies, the program has formed a Funding Committee of Astrobiology Program faculty.
 - *Formation of a justice, equity, diversity and inclusion (JEDI) Committee for Astrobiology to Organize Astrobiology JEDI Efforts Across Participating Departments.* The program will formalize a JEDI council representing departments, disciplines and diversity of its students, faculty and postdocs. The program’s 25-year anniversary will catalyze broader outreach to raise the program’s profile on campus and in the greater community.

Summary of response from the College of Arts & Sciences Dean’s Office

In its comment, the College of Arts & Sciences Dean’s Office stated:

- Agreement with the review committee’s assessment that the Astrobiology program is the premier graduate Astrobiology program in the US and an outstanding program by any measure.

- Support of the finding of the review committee that the funding model of the program is tenuous and the Astrobiology Steering committee and faculty should explore options for a more secure funding model.
 - Appreciation for the Astrobiology Program’s response to this recommendation and their creative ideas for exploration of this
 - The College of Arts & Sciences has and will continue to have strong support for the program but has not witnessed a broad representation of faculty support which spans the breadth of the program across the UW. It is imperative that this support reaches the leadership in all four colleges representing the program, from within their own faculty.
 - The College commends the program’s formation of a Funding Committee and looks forward to receiving, along with leadership of the other colleges, recommendations and ideas for stable and sustainable funding.

Summary of Graduate School Council meeting on January 4, 2024

The Graduate School Council discussion of this review included the following key topics:

- *NASA grant extended:* The program leadership gave an update that the grant from NASA has been awarded for another 5 years, buying the program and administration time to work toward a sustainable funding model.
- *Impending leadership transition:* As the renewed funding is tied to the research of the program director who intends to step down in the next few years, funding past that point is uncertain. The program director expressed concern that it may be challenging to find a new director if funding model is not resolved.
- *Program funding model:* The program and college expressed desire to continue work to identify a more sustainable funding model. The challenge is in part due to the program being situated outside the conventional departmental structure of UW and the fact that it spans numerous departments and colleges.
- *Exploring strategies of other interdisciplinary programs:* The Council discussed strategies that the Astrobiology Program can explore, such as tapping into its enthusiastic alumni, expanding undergraduate teaching, and looking at other interdisciplinary programs at the UW. Examples cited were Program on the Environment, Nutritional Sciences program and Urban Design and Planning.