



Microbiology and Immunology Program Review 2021-22

Closing MOU

Date: August 25, 2022

Overview

Degree/Certificate Programs Reviewed: Bachelor of Science in Microbiology and Immunology

Dept Chair, Major Director & Deans: David AuCoin, Ph.D., Chair; Mary Burtnick, PhD., Director, Katherine McCall, Ph.D., Interim Dean of College of Science, Melissa Piasecki, M.D., Acting Dean School of Medicine

External Reviewers & Affiliation: Dr. Kari Dugger, Department of Microbiology and Immunology, Edward Via College of Osteopathic Medicine
Dr. Aaron Mitchell, Department of Microbiology, University of Georgia

Date of External Visit: March 31, 2022

The Microbiology and Immunology (MI) program was scheduled for regular program review as mandated by the Board of Regents and University policy. A self-study document for the department and its programs was developed by the department faculty and completed in the Fall of 2021 for the MI program. These respective reports were provided to the reviewers before they conducted a virtual visit on March 31, 2022. The external reviewers reviewed the program and met with relevant faculty, staff, students and administrators to determine the department’s accomplishments, examine strengths and weaknesses, and identify opportunities as it plans for the future. A final report was issued by the review team shortly after the review visit. In accordance with institution practice, responses to the review were solicited from the department and the dean. A final meeting took place on August 25, 2022. This document represents the final MOU of recommendations and findings from the review.

Signatures

Executive Vice President & Provost:

Jeffrey S. Thompson

Date: _____

Date: _____

Vice Provost, Undergraduate Education:	David Shintani	Date: _____
Vice Provost, Graduate Education & Dean, Graduate School	Markus Kimmelmeier	Date: _____
Dean, College of Science	Katherine McCall	Date: _____
Chair, Department of Microbiology and Immunology	David AuCoin	Date: _____
Acting Dean, School of Medicine	Melissa Piasecki	Date: _____
Director of MI major	Mary Burtnick	Date: _____

Major Findings and Conclusions

While the Microbiology and Immunology (MI) program was only recently established in 2013, it has been extremely popular with enrollments averaging around 200 students. The program graduates have been very successful obtaining full-time employment, graduate school admissions or professional school admissions, with ~80% of alumni being placed upon graduation. These successful outcomes are likely the reason that the external review team were greeted with such high praise for the program by MI students and alumni. The students commented on the quality of instruction and the accessibility to MI research faculty. The reviewers also commented on the enthusiasm of the MI faculty for the program and their commitment to the success of their students. The reviewers had high praise for the MI department leadership and attributed much of the MI program success to the Undergraduate Program Director (Burtnick). Although the reviewers had a strong overall impression of the department, they made the following recommendations to support the continued success of the department:

- Students appreciate the program's moderate size, which provides ready access to faculty and makes available many opportunities in research labs. Future program planning should focus on efficiency and sustainability of the current program mission, student success and faculty development.
- Currently, the program director, a tenured faculty member with a large research portfolio, is primarily responsible for administering the program. The reviewers recommend that the program hire an administrative assistant to support the director, so that the director's research productivity is not negatively impacted.
- The program should develop a sustainable effort to engage MI alumni. These alumni comprise a pool of potential donors and recruiters for the program. This network of MI graduates will also provide MI students with valuable professional contacts to facilitate employment opportunities.
- While the program has created a highly successful medically focused program, microbiology is a broad field with career opportunities outside the medical arena. As such the reviewers suggest that the program consider the development of additional program emphases focusing on disciplines including computational microbiology, bioinformatics and microbial ecology.

Next Steps for this Program/Department (topics will vary)

- While the program has been highly successful, it lacks the human and physical resources to grow beyond its current enrollment capacity of ~200 students. That being said, the program feels that it can continue to provide its students with a high quality academic degree program and will heed the external reviewers' advice to address efficiencies that support the program focus on student success.
- As funds become available, the program will prioritize the hiring of an administrative assistant to support the program director. In the meantime, student workers will be hired to help address this deficiency.
- While the program has little experience with alumni engagement, it will seek out advice from experts in this area, including persons from the UNR Alumni Office and UNR Med Office for Advancement and Engagement.

Vital Statistics on NSHE Reports

Number of students with declared major in the program area:

2021-22	<u>201</u>
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Number of graduates from the program for the following years:

2019-20	<u>51</u>
2020-21	<u>37</u>
2021-22	<u>36</u>

Program-level graduation rate using first-time, full-time, degree-seeking cohort at 150 percent completion time:

2019-20	<u>60%, n=30</u>
2020-21	<u>76.3%, n=59</u>
2021-22	<u>71.9%, n=32</u>

Headcount of students enrolled in any course related to the program (duplicated):

2021-22	<u>637</u>
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