

Final Report: WCU Innovation in Diversity & Inclusion Grant (2023-2024 AY), Fork

***“Diversifying representation for Biology students through an early-career seminar series”***

**Project overview and goals**

Student retention in Biology and other STEM fields can be enhanced by developing students’ sense of belonging in their department and, more broadly, in their field of study. This project connected students in WCU’s Department of Biology to diverse early-career biologists through a series of four seminars. In addition, the project gave the opportunity for a small group of students to share lunch with each scholar, as well as a larger reception following each seminar open to students, faculty, and the visiting scholar.

The goals of this project were threefold:

1. To increase representation of biologists from minoritized groups for WCU Biology students,
2. To build a greater sense of inclusion and belonging among WCU Biology students, both in our department and as members of the field, and
3. To raise the profile of WCU’s Department of Biology as a place for faculty job seekers from minoritized groups, to improve the diversity of future hiring pools and the future faculty composition of the Department of Biology.

During the 2023-2024 academic year, the “Diversifying Biology Seminar Series” brought four early-career biologists to WCU’s campus. These visiting scholars are postdoctoral scientists or visiting assistant professors at regional institutions and have one or more identities that are underrepresented in our current Biology faculty and the field of Biology at large (e.g., Non-native English Speakers, First-generation College Students, People of Color, Queer). We selected these four scholars from a pool of 25 scholars who stated their interest through an online form circulated to regional postdoc groups. Importantly, we chose these scholars democratically, with the Biology DEI committee (composed of both faculty and students) selecting two of the scholars and the students of the Biology capstone seminar course (Bio490) voting for the other two.

Underrepresented scholars are often asked to speak about diversity issues in addition to or instead of their research, unlike their white colleagues. This puts underrepresented scholars at a disadvantage because of overwork and/or because talks about diversity typically carry less weight as compared to research talks when applying to traditional academic jobs. By creating a platform for underrepresented early career scholars to present their research work, we simultaneously benefit those scholars and raise the profile of WCU among future faculty job seekers.

## Outcomes

The inaugural year of the “Diversifying Biology Seminar Series” brought the following early-career biologists to WCU’s Department of Biology for lunches with students, a research seminar, and a reception open to the department:

<b>Name</b>	<b>Date of visit</b>	<b>Role &amp; affiliation</b>	<b>Seminar title</b>
Dr. Yu-Chieh David Chen	30 Oct 2023	Postdoc, New York University	“Wiring up the brain during development: Coordination and propagation of cell fate choice in neural circuit assembly”
Dr. Rebecca Clements	4 Dec 2023	Visiting Assistant Professor, Swarthmore College	“Nucleated Red Blood Cells: Unexpected Orchestrators of Fetal Immunity”
Dr. Brienna Anderson-Coughlin	19 Feb 2024	Postdoc, University of Maryland	“Evaluating Microbial Water Quality - From Food Safety and Public Health Perspectives”
Dr. Yuri Silva	25 Mar 2024	Postdoc, Lehigh University	“Unveiling copper acquisition in <i>Bacillus subtilis</i> ”

Each of these visiting scholars shared lunch with a group of 4-7 students from the Department of Biology. Faculty did not attend these lunches to facilitate students’ growth and confidence as independent scholars interacting with near-peers.

The research seminars presented by each of the visiting scholars were included as part of the Biology Capstone Seminar (Bio490), with an enrollment of about 50 upper-level students each semester. The seminar series was open to other students and faculty in the department, and the room, which seats 77, was often filled to capacity. In past years, Biology faculty members did not often attend seminars, but this series has revitalized a culture of seminar attendance in our department. Further, students asked thoughtful and intelligent questions at every seminar.

Immediately following each seminar, the program supported a reception open to all and held in the Center for STEM Inclusion. Attendance at these receptions grew from 10-12 students and faculty for the first seminar up to approximately 30 for the last seminar in the series. Students, visiting scholars, and faculty members had meaningful interactions and conversations at these events. Anecdotally, I watched upper-level students in our department mention their shared identities (First-Generation College Students) and research interests (Microbial Biology) in excited conversation with our guests.

During the spring semester, I solicited anonymous feedback from students who participated in events associated with this program. Some of the students mentioned a

sense of awkwardness and “general reluctance to ask questions” or a feeling of uncertainty in how to interact with speakers during the lunch. In response, I have developed a “guide” to provide student attendees to help them prepare questions and facilitate conversation, which I provided to students who attended the final lunch and will provide for future events.

Students mentioned that they “liked being able to chat personally with these guests and learn about their experiences”. Students mentioned that the lunches with visiting speakers were “really nice because [they were] a more informal way of talking about the field and potential jobs without the stress” and were “very helpful in getting to ask more personal questions regarding the guest speakers journey through undergrad, grad, etc.” One student mentioned that they appreciated each of the events being “helpful in a different way (lunch questions seem more about the grad school process, the seminars are great for the research aspect, and the receptions are great for discussions).” We look forward to building on the success of this inaugural seminar series and continuing to improve outcomes for the future.

### **Next steps**

We are grateful to have been awarded funding through the WCU Innovation in Diversity & Inclusion Grant program to continue this seminar series for a second year. We will continue to host early-career biologists with underrepresented identities to share their research, increasing opportunities for WCU Biology students to see and interact with diverse biologists. In this second year of the program, we will more quantitatively measure the effectiveness of the seminar series in increasing students’ sense of sense of community in our department and belonging in our field. We also plan to coordinate with other departments to increase student involvement and interactions, highlighting interdisciplinary scientists and topics.

Thank you for your support!

Respectfully submitted,

A handwritten signature in cursive script that reads "Megan Fork".

Megan Fork