

Contributions to Diversity

I am highly motivated to be actively involved in programs that promote diversity. As a [REDACTED] I have learned through personal experiences the importance of promoting programs to broaden diversity in academic departments. As a graduate student I learned early on to take advantage of summer workshops available to [REDACTED] students at UW-Madison, as they were useful to improve communication and scientific skills that contributed to my success as a Ph.D. student. Further, I also attended conferences organized by SACNAS (Society for Advancement of Chicanos/Hispanics and Native Americans in Science) where I learned there was a scientific community with [REDACTED] background and cultural challenges, that is ready to help and support [REDACTED]. I also learned that representation in science matters. I was so motivated when I was able to network with [REDACTED] scientists. It gave me a sense of confidence that I could aim for academic positions. Finally, it inspired to become a role model for [REDACTED] students.

Commitment to minorities: I have a strong commitment to minorities. While in graduate school at the University of Wisconsin-Madison I was an active mentor of the Research Experience for Undergraduates Summer Programs (REU). This program benefits minority students primarily and facilitates summer research. I guided/mentored the summer research of three awarded fellows of this program. As postdoctoral researcher at the University of Washington I was an active mentor in the GenOM ALVA program (Alliances for Learning and Vision for Underrepresented Americans). This is a program that covers tuition of underrepresented students as long as they develop a research project during the academic year. I mentored the research projects of three students of this program. At Michigan State University, I have been a mentor for the Summer Research Opportunity Program (SROP). The goal of this program is to increase the number of underrepresented students who pursue graduate studies and research careers by having a summer internship and conducting research. I am also an active member of SACNAS and I have participated both as a reviewer and presenter in their national conference. I plan to keep participating both at conferences and as a mentor in research programs that allow underrepresented minorities to conduct research either during the academic year or during the summer. I also plan to participate as a mentor of a grant workshop for early career scientists organized by the minority affairs division from the American Society of Biochemistry and Molecular Biology.

Community Engagement: I believe that engaging younger generations and communicating science in an accessible way to all audiences can broaden the diversity of applicants in scientific programs. I have partnered with the Gifted and Talented Education (GATE) program at MSU. This program fills a gap in the regional school system and provides challenging, hands on classes to students that excel in academics. The summer program is available for students in grades 7-10, and the division of Math, Science, and Technology is implemented as a 2-week summer workshop. Our educational goals include teaching microbiology basics (bacterial growth, genetics, selection, metabolism, etc.) in a bench-focused research setting wherein the students learn the concepts by conducting a two-week experiment. Twenty students attended our class and recovered lanthanides from recycled magnets using *M. extorquens*. Another year, ten students designed their own synthetic methylotrophic community to enhance soybean growth. GATE evaluates performance of every mentor with surveys completed by the participants. Feedback from our class has been very positive with high marks for the research intensive format and student-focused classroom sessions, and we have been invited to participate again next year. I plan to keep developing these summer workshops.

Finally, empowering women is also an important priority for me. I believe that having honest conversations with female students and power hours at conferences can help younger students be more prepared for the difficulties they will face in their careers. For example, by sharing how to balance family-work priorities, female students can feel empowered. This is why I wrote a chapter for "Women in Microbiology" published by the American Society of Microbiology. In it, I talk about one of my female role models, specifically how she showed me [REDACTED]. Through my community engagement I hope to inspire more women to pursue science careers and be bold.