

Graduate Mentoring Statement

I have modelled my own mentoring style on the positive experiences I was fortunate to have when I was a PhD student and postdoctoral researcher. My PhD research mentor was 500% invested in the success and well-being of his students. One of the best examples of this, is the significant amount of time he spent helping me refine my oral presentation skills. I am a shy person by nature and this, combined with a dose of imposter syndrome, made this aspect of my PhD training especially stressful and challenging. To overcome this, my PhD mentor was my audience for practicing every single presentation, from student seminars and committee meetings to postdoctoral interviews. His patience and advice truly helped me overcome a dread of public speaking and develop a critical skill that helped me achieve subsequent success as a scientist and educator in academia. To this day I remember his advice on the importance of being able to walk the audience through a data slide in a clear and logical way. I have since realized through mentoring my own graduate students, that I am not the only one who has struggled with delivering effective presentations at this early career stage. As such, I try to invest this same level of time, patience, and encouragement with my own students, especially if they also share these same struggles or confidence issues. I strongly encourage my students to present their research at both national and international scientific meetings, as this fosters their confidence, hones their presentation skills, and broadens their networking and collaboration opportunities. This has helped support my students' success at these regional and national scientific meetings, as many have been recipients of competitive travel awards and/or have given award-winning oral and poster presentations.

The primary lesson from my postdoctoral supervisor that I have incorporated in my own student mentoring is to maintain high expectations for all my graduate students in terms of work ethic and data output, while at the same time recognizing that each student is an individual and that there is not a one-size-fits-all way to bring out these skills in students. I believe that setting high but realistic research goals with my students helps them build confidence and achieve their short- and long-term career goals. It also helps prepare them for the “real world” of science. For example, learning to be “a constructive critic” in terms of assessing your own data and research ideas takes some of the “sting” away when you have your first committee meeting, or when you get back those critical comments from your first peer-reviewed manuscript or grant application. Some students do best with a more structured mentoring style, with regular meetings and setting weekly or semester-long research goals, while other students are most productive and motivated when they are given the latitude and confidence to do so. At either end of this continuum, I feel that maintaining an open office door communication policy and being readily available to answer questions and discuss data is an important component of my mentoring style. This was a more challenging aspect of mentorship to implement during and after the initial COVID shutdown period in 2020, however my students and I adapted and continued to communicate frequently by Zoom during this period. I remain very proud of the fact that my graduate students maintained their productivity and work ethic during this period, with 8 peer reviewed publications from our lab in 2020, as well as completion of milestones such as oral qualifying exams.

During my time at the University of Florida (11/2008- present), I have chaired and trained 11 PhD students (2 current) and 3 MS thesis students (0 current) in my lab, and have served on a large

number of graduate student committees in our department (chair of 59 non-thesis MS committees, member of 30 PhD, and 6 MS thesis committees) as well as an external member of 9 PhD committees. During the last 5 years, I have served as chair and graduated 6 PhD students from my research lab. Three of these students have established exciting careers in industry, one is conducting postdoctoral research with a government agency, one started a scientific writing/editorial business, and one is a lecturer and administrator at a state college. This variety in post-PhD career paths reflects my students' unique and diverse research and career interests, which also plays a central role in my mentoring philosophy. It is extremely important to support my students' long-term career goals, not only by fostering core skills and success metrics common to all scientific careers (peer-reviewed publications, presentations at scientific meetings, experience in teaching) but also to integrate opportunities unique to each individual mentee and their long-term career interests. One example of this is providing graduate students with encouragement and opportunity to write and submit fellowship and small grant applications, a highly sought after skill in most career paths. During the past 5 years I have had PhD students receive fellowship and stipend funding through the National Science Foundation and National Institutes of Health (NIH), as well as a professional development award from the Florida Space Grant Consortium. Another example is to provide graduate students with their own opportunity to serve as a mentor, by hosting undergraduate researchers in our lab. Some of my graduate students have built their own successful track record as a mentor, with undergraduate students under their supervision co-publishing with them on their peer-reviewed papers and presenting at scientific meetings. In fact, one of my PhD graduates told me that his mentoring success and experience while a graduate student is one of the skills his current employer was most interested in during the interview process!

Finally, I am passionately committed to fostering accessibility and inclusiveness in my research program, with a track record of mentoring graduate students typically underrepresented in STEM. Of the graduated 9 PhD students from my lab, 5 were female, 3 were underrepresented minorities in STEM, 2 were non-traditional students, and at least 4 were first generation college students. I have demonstrated this commitment within the university by serving on the UF Microbiology and Cell Science departmental Microbiology for All committee since 2021. I have also participated in a series of interactive workshops that addressed Hidden Operational Bias (Hiring & Retention), Personal Awareness, and Mentoring, and I completed the 2021 Culturally Aware Mentoring workshop that was co-sponsored by the University of Florida CTSI Mentor Academy and National Research Mentoring Network.

In summary, one of the most rewarding aspects of my academic career is mentoring, helping my students become successful independent scientists who achieve their own career goals. I have been fortunate to have had opportunities to extend my mentoring beyond UF, by participating in mentoring activities at national scientific meetings and serving as a reviewer on NIH and American Heart Association graduate fellowship panels. My reputation as a mentor has also been recognized in my field through my invitations to give career seminars, as a keynote speaker (Virtual *S. aureus* Early Career Scientist Symposium in February 2021), and as a student-invited seminar at the University of Minnesota (September 2022). In these talks, I incorporate insights from my own journey as a first time in college, female academic, as well as discussion of imposter syndrome.