

## Discussion with 2019 Diamond Research Scholars Mentors



*Dr. Sherril Dodds (left)*

*Dr. Edwin Maas*

*Dr. Evangelia Bellas (center)*

### **Tell us about the student and project you mentored.**

**Dr. Dodds:** I mentored Makayla Peterson, a dance major. She wrote an essay and created a vlog (video blog) that examined how the Caribbean female dancing body has been colonized and misrepresented in American popular culture as a sexualized and racialized spectacle, but through fieldwork at several Caribbean festivals she demonstrated how social dance allows women to stage their Caribbean identity and perform community belonging in ways that critique these narrow misconceptions.

**Dr. Maas:** I mentored Kyra Skoog, a communication sciences and disorders major. Kyra's project focused on children with childhood apraxia of speech (CAS), a pediatric speech disorder in which planning of speech movements is impaired, and these errors may severely limit their speech intelligibility. Kyra's project examined whether commonly used measures of speech sound accuracy (e.g., consonant accuracy, vowel accuracy) are meaningfully related to intelligibility.

**Dr. Bellas:** I mentored Niko Di Caprio, a bioengineering major. His project used modified collagen biomaterials to probe how altered fat tissue matrix mechanics, as seen in obese tissue that has become fibrotic, can affect fat cell function.

### **How did this project intersect with or depart from your own research interests?**

**Dr. Dodds:** Although I am not an expert in Caribbean popular dance, I am familiar with the literature on this topic and my own work looks at how other forms of social dance enable participants to work through matters of identity and community belonging.

**Dr. Maas:** This project fit nicely with the research in our lab, much of which focuses on how to improve treatment for children with CAS. A common outcome measure in treatment studies is speech accuracy, whereas intelligibility is rarely used, in part because it is more time-intensive to code. Kyra's project addressed a fundamental question about the relationship between outcome measures that will help design of future treatment studies and potentially provide important

information to facilitate clinical decision-making by speech-language pathologists.

**Dr. Bellas:** One of our main areas of interest is studying how fibrosis in obese adipose tissue (fat) influences metabolic function. I have used biomaterials throughout my research; however, we had not yet used them as a tool to probe mechanisms. Given Niko's strengths and interests, we knew it was the right time to try this approach.

### **How would you describe your mentoring philosophy or style?**

**Dr. Dodds:** I try to work closely with the student to support their research interests, and help them to identify a project and methodology that suits their academic skills. As Makayla is such a creative individual, we felt that the vlog would really bring the dance to life on screen and allow her to engage with her community of practitioners.

**Dr. Maas:** Supportive, communicative, and honest. I offer guidance and resources, and then encourage students to figure things out independently and solve problems. I am around to help troubleshoot, of course, but I believe that students retain information better, and learn more deeply, by trying to find things out through trial-and-error or logic. I try to ask questions to help them work out the process, and play devil's advocate sometimes to push them to sharpen their thoughts and rationale. And I provide honest input about what science is and isn't, what an academic/scientific career entails, etc., warts and all.

**Dr. Bellas:** My style is to support project autonomy earlier than most other mentors do, especially autonomy in less experienced trainees. I have found most rise to the occasion and they learn a lot more in the process. This can mean the early stages are a bit more challenging but the outcomes are always impressive. Their success is then truly built off what they have fostered.

### **What, if anything, surprised you about the experience of mentoring a Diamond Research Scholar?**

**Dr. Dodds:** I was amazed at how self-motivated Makayla was. She responded so well to feedback on her writing that the work underwent a significant transformation from the early drafts through to the finished essay. The development of her writing was quite impressive.

**Dr. Maas:** Not entirely surprised, but the high caliber and dedication of the Scholars. It is truly a pleasure and privilege to work with such accomplished, smart, and motivated individuals who are the stars of the future.

**Dr. Bellas:** I was impressed with how insightful the Scholars became over their time with the program. It offered them a chance to think about their strengths, areas for improvement and the challenges of research. The community with other Scholars in different areas of research allowed them to see their struggles, concerns, ups and downs are shared by all regardless of field.

### **What tips do you have for students who are trying to find a mentor?**

**Dr. Dodds:** I had not worked with Makayla prior to the Diamond Scholars program, therefore I would advise students to take time to get to know their mentor a little. Makayla and I had a lengthy first meeting where we established that we had mutual research interests and that there was clearly a rapport between us.

**Dr. Maas:** Think about what sorts of research you find interesting. Check out faculty websites to see what they do, not just in your own department but in other departments as well. Don't be shy -- reach out to people. Be familiar with their research (generally). No need to read all their papers, but familiarize yourself a little with what they do. Have a resume ready because they will probably ask for one when/before you meet with them. Be able to articulate what your strengths

are, why you would make an excellent fit for someone's lab.

**Dr. Bellas:** I believe the environment is just as important (if not more important than) the research project. Do your 'homework'. Is the mentor generally supportive of their trainees? Are their trainees happy? It is ok to ask around and ask current trainees if possible. When you meet with the mentor, are their interests aligned with yours?

### **What advice do you have for undergraduates contemplating undertaking an in-depth research or creative project?**

**Dr. Dodds:** Be prepared to be flexible about what you can achieve in a relatively short time, and work closely with your mentor to share each stage of the research process. Regular check-ins ensure that any problems or challenges can be resolved relatively quickly, and they encourage the student to keep articulating what the project is and how its findings are developing.

**Dr. Maas:**

- Think about what your goals are and what you hope to gain from this experience.
- Persevere. Not everything works out, but keep trying. Don't be discouraged too easily. Be resilient. Believe in yourself.
- Most projects take longer than you expect. Setbacks are part of the process. That's OK, because you will learn as much (or more) from obstacles and mistakes than when everything goes according to plan. Research is often non-linear, and an exercise in delayed gratification. Sometimes you are working working working and waiting and waiting and waiting, with no tangible product to show for it. (The amount of time you spend does not linearly equate to amount of product). But then eventually when the product is ready, it is very rewarding. Nothing is perfect. That's OK. Just accept it. Don't let "perfect" be the enemy of "done."
- Now is a good time to explore your interests. Take advantage of this wonderful opportunity to expand your horizons.

**Dr. Bellas:** Be honest with yourself about what you can take on and how it may impact your other commitments. Undergraduates can have a heavy course load, multiple groups on campus, or a job to which they are already committed. Research is a big commitment. Talk to others doing research and get a sense of how much time they are spending in research. Is it something you can imagine working with your schedule and existing commitments? If not, are you willing to (or should you) put another commitment on the back burner? Sometimes you don't come to a conclusion you like, but that's OK, better to figure that out earlier rather than let something (like your grades) slip because you took on too much.