

**St. Edward's University Orbit Magazine, spring 2018, page 7**

## **Intellectual Entrepreneurship Internship: Scholar Sarahi Enriquez and Mentor Marta Sans, PhD Candidate**

*The McNair Scholars Program participates in the Intellectual Entrepreneurship Internship (IE) program founded and directed by Dr. Rick Cherwitz, Professor of Communication Studies at the University of Texas at Austin. The IE program is a symbiotic opportunity which pairs current doctoral student mentors from UT Austin with St. Edward's McNair Scholars who shadow them in sitting in on graduate seminar, assisting with doctoral research and meeting graduate program professors and administrators. McNair Scholars are given the opportunity to discuss life as a graduate student with their mentors who, in return, gain a chance to directly contribute to the scholastic development of a future colleague. This year, we present the collaboration between SEU Scholar Sarahi Enriquez and UT doctoral student Marta Sans.*



**Marta, please feel free to tell us a little about yourself. What program are you enrolled in at UT, and what are you currently researching? How did you relate /connect it to your IE mentee's interest?**

Marta Sans: I am a third-year analytical chemistry graduate student working at the Livia Eberlin research lab at UT. I am originally from Barcelona, Spain and moved to the US on a tennis scholarship for my undergraduate degree at the University of New Orleans. In 2011, I moved to Austin for graduate school. My research efforts are towards the development and application of new technologies based on mass spectrometry for ovarian cancer diagnosis. In our lab we have developed methods like the MasSpec Pen, a pen-shaped device that can detect cancer during surgery using a single drop of water. The MasSpec Pen can extract molecules from tissue, which are later analyzed by a mass spectrometer and combined with machine learning algorithms to produce a diagnosis. Even though our research is very clinical, mass spectrometry is a very powerful analytical tool that shows diverse applicability in various fields, such as forensic chemistry, which is Sarahi's major. She was also taking her analytical chemistry course during the fall, where she was learning about mass spectrometry, so it was interesting for her to see what this type of instrumentation looks like in real life, learn a little about how it works and what kind of information can be obtained from a variety of different samples using these methods.

**How did you hear about the Intellectual Entrepreneurship Internship Program? What inspired you to become an IE mentor?**

MS: I received an email from one of our program coordinators, which was asking for graduate mentors at UT to participate in the IE program. I was excited about it being a mentoring opportunity in general, since I was seeking for more experience of that kind as I am potentially preparing myself for an academic position in the future. Also, I really enjoy working with students and helping them get a better idea of what grad school is like, especially as most of them are first generation college students, I think represents a very valuable experience for them. Also, it was exciting that it was outside of UT, so that we could share our research beyond our school and help students outside of UT.

**What were some of the topics that both would discuss during your time together?**

Sarahi Enriquez: I had the opportunity to visit the UT campus a lot and go with Marta to her lab and see some of the stuff she worked on. She also invited me to see seminars they would have once a week where doctorate students would present their research. I got to meet the other students who she worked with and see what their part of the project was. That was the coolest experience, seeing her lab and what other projects other chemistry research lab at UT are working on. And Marta was able to visit St. Edward's University and participate in the McNair graduate student panel.

MS: We discussed some of our college experiences, what classes we took and what we enjoyed the most. We also chatted about some of her future steps after college, going into the application process for graduate school. I gave her some advice about that as well as things to look at when you are deciding for a school and a professor to work for. Even though we talked a lot about science and school, we also shared some of our personal stories, we both speak Spanish and are very close to our family, so we bonded over that. And I told her that she should definitely take advantage of being a fluent bilingual!

**What events, activities, and courses did you invite, or encourage Sarahi to participate in along with you on campus at the University of Texas at Austin?**

SE: I had the opportunity to visit the UT campus a lot and go with Marta to her lab and see some of the stuff she worked on. She also invited me to see seminars they would have once a week where doctorate students would present their research. I got to meet the other students who she worked with and see what their part of the project was. That was the coolest experience, seeing her lab and what other projects other chemistry research lab at UT are working on. And Marta was able to visit St. Edward's University and participate in the McNair graduate student panel.

MS: Yes, Sarahi visited our lab on multiple occasions to shadow some of the experiments as well to see how the lab worked and what the dynamic was. I also invited her to attend our group meetings, where we always have one of our students presenting on research or on recent literature. She also attended some of our department seminars where we have students across the department give talks about their research.

**Marta, what advice would you give to incoming graduate students or undergraduates wanting to pursue graduate studies?**

MS: That's a good question! I think it is very important that when you are looking for a program you try to find a research lab where you feel like you could fit in well. That includes research, lab dynamic and considering whether the work style of the research advisor is something that you think would work for you. One of the things I wish I did was look for fellowship opportunities while applying for grad school. Even if your professor is well-funded, having an external funding source is always nice, it will help your professor save some money and it also looks very good on your CV. In terms of getting integrated into the program, I recommend attending events during orientation and other social gatherings organized by the department that will help you meet people and make friends. Having a group of people that you can share experiences with as well as do fun activities to de-stress has helped me a lot with maintaining a healthy work-life balance during grad school.

**Continuing with the previous question: what advice would you give to an undergraduate student interested in pursuing a graduate degree in chemical sciences in general? How should they prepare for continued study in higher education? (Any works to read, activities to get involved with?)**

MS: If you are still in college and have the opportunity to do so, try to get as much research experience as you can. It is usually good to have experience in diverse disciplines too, to help you figure out what you like, but if you know what you want, getting experience in your field of interest can help you get accepted in competitive groups. Apart from research, I would say that your recommendation letters and your statement of interest will carry the most weight to the acceptance process. Spend some time writing your essays and make sure they are tailored to the program you are applying to, so if you are looking for something to read, you can look into the publications from the groups you are interested in. In terms of recommendation letters, spend some time getting to know your recommenders if you haven't yet, so that they can also learn more about you, which will help them write better letters.

**Would you participate in the Intellectual Entrepreneurship Program with the McNair Scholars Program again? Would you encourage other graduate students at UT to become involved?**

MS: I definitely would! It was a great experience from my part and working with Sarahi was very nice. I think she is a very well-rounded student and I know she will do very well for herself. I hope my mentoring can take a bit of credit for that. And I would certainly encourage other students at UT to get involved. Even though we are all busy, finding the time to participate in these initiatives is worth your time, can help you value everything you have accomplished looking back to your undergraduate time, and it is also a good way to get back to the community.

**Sarahi, after being involved in the program with Marta, what are your thoughts on its connection to pursuing graduate studies?**

SE: The IE program gave me a better picture of what to expect in graduate school. It also made graduate school be a more reachable goal. This program helped me realize how diverse the chemistry field can be in a PhD. program and made me more excited about pursuing my PhD.