

# TOX QUARTERLY

*The Official Publication of UCR Mini-ETOX GSA*



Editors: [Connie Mitchell](#), [My Hua](#), [Sara Vliet](#), [Jin Chen](#), and [Mini-GSA](#)

## Winter Outreach Recap!

Thanks to everyone who volunteered at the Science Olympiad and Stork Science Night! Pictured to the right are [Aaly](#), [Marissa](#), and [Tori](#) helping at the Science Olympiad in March 2018!



## UCR SOT Mixer!

The first annual ENTX SOT mixer was a success in San Antonio, TX. Current students and ENTX Alumni!

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## UCR ETOX Faculty Spotlight: Dr. Seán O'Leary

By Connie Mitchell



**Dr. O'Leary** received his B.Sc. in Chemistry from University College Dublin. He then traveled “across the pond” to study at Cornell University, earning both his M.S and Ph.D. degrees in Chemistry and Chemical Biology. During his Ph.D., he studied enzyme reaction mechanisms in the metabolisms of clinically relevant bacteria. Dr. O'Leary next started a postdoctoral fellowship at Stanford University School of Medicine. He used single-molecule fluorescence microscopy to better understand protein mechanisms and dynamics. He became a faculty member at University of California, Riverside in 2016. Dr. O'Leary's current research uses biochemical and biophysical techniques to better understand molecular mechanisms, primarily eukaryotic translation initiation.

**Q: What inspired you to go into research, and how did you first get involved?**

**A:** As a college student, I was a very big fan of curved arrows in organic chemistry. I am actually a chemist by training, and I loved pushing around arrows to try to understand how a mechanism worked with small molecules. Another subject I was doing was pharmacology. On the one hand, I was really into how small molecules behave in terms of mechanisms, on the other side I was looking at what these things actually do when you put them into a living organism. It got me excited that we could understand the basis for pharmaceutical action on a chemical level, and the contributions we could make by understanding that. I've always been interested in mechanisms that translate, *no pun intended*, into the research that we are doing. Very molecular, very mechanistic, I really enjoy doing it. By the time I was done with that I couldn't see myself doing anything else. Just the freedom and the creativity, and the ability to understand on the fundamental level how things really affect biology or people. From there I went off to a Ph.D. in Biological Chemistry looking at enzyme reaction mechanisms.

**Q: What do you find most challenging about being a professor?**

**A:** Being a professor is about effective management. I think the biggest challenge is making sure I'm effectively managing a team of people working really hard together to solve these complex problems, people coming into research who have different mindsets and goals. That's the biggest challenge that I find on a day-to-day basis, to make sure that everyone's needs are being met and that I'm being effective in interacting in the group and making sure everyone moves forward in the way that is best and most productive.

**Q: What piece of advice do you wish you had been given when you were a graduate student?**

**A:** Think big! Think big is my advice, and especially as you go through grad school. It's really easy to sort of focus on your work. You “need” to get the protein purified or you “need” to get the reaction to work, something of that sort. I think the thing I find is that you need to poke your head above the surface every now and then. That's something I probably didn't do early on. It's something I try to encourage here: broad awareness. And try to survey more broadly, how the one protein or the one molecule or the one model fits into the broader picture. Even for career development, just put the head up above the waves every now and then and try to understand where one's research fits into the bigger picture. Get involved in conferences, talk to your peers, talk to professors, talk to whoever you can. It's also a good buffer because grad school is hard, research is difficult. Get a sense that people will be excited if I solve this problem. Getting involved is a good antidote to academic life.

**Q: What is the strongest quality you for in someone who wants to work with you?**

**A:** The strongest quality... Well probably a mixture of two. The absolute strongest quality I look for is perseverance. That's the one thing that really can make the difference between getting to the end of a really difficult problem and not getting there. When I look for people, I look for people who are excited, and interested in a particular area. In particular, people who really want to solve the problem. Secondary to that (I'm cheating, in giving you two) people who have this broad awareness. If we solve this problem, why will people be excited?

**Q: What do you do outside of lab for fun?**

**A:** I think all the restaurants in Riverside shiver anytime they see me, certainly the Korean BBQ place. I think they hide all the meat when I go in there. I like foods. I like travel. I like hiking. I used to be a golfer, I rarely golf anymore. I enjoy all of those things, I really like traveling as well. I try to travel as much as I can.

## Upcoming ETOX Mini-GSA Events!

# Etox Graduate Program Spring (ish) Potluck

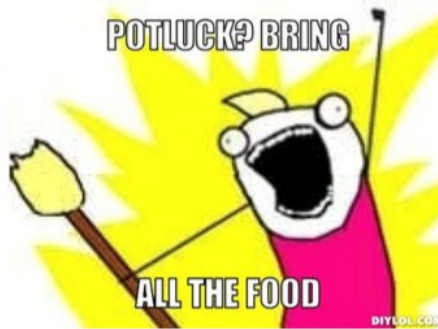


Friday, June 1  
5:30 – 8:30 PM  
Location: Picnic Hill

Bring a dish or beverages to share  
(and serving utensils!)

If you bring beer please provide  
another item

Sign up via Google Doc by 5/28



Hosted by the Environmental Toxicology Mini GSA



By Stefani Andrews

## The Annual Environmental Toxicology Symposium

The Annual Environmental Toxicology Symposium is coming up on **Monday, June 18<sup>th</sup>**. Due to the success of last year, the Mini-GSA will be continuing with our raffle fundraiser. This year will include new tiered prizes, don't forget to bring some cash and get your tickets! Please help us increase the **sustainability** of our program events by bringing a reusable mug! All faculty are encouraged to attend!

## GSA Meeting Minutes: Spring 2018

By Tori McGruer

1) GSA Conference travel grant applications could be moving to electronic submissions. Stay tuned for updates!

## Shout Outs!

**Tori McGruer** "Tori is an awesome of-  
fice-mate! I appreciate getting to talk to  
her about classes, traveling, and coffee!"

**My Hua** "Thank you for always having a  
smile on your face and bringing a posi-  
tive outlook!"

**Aaly Reddam** "Aaly is so excitable and  
positive! She is awesome to work with :)"

**Sara Vliet** "Sara is an amazing lab mate!  
She is always willing to take the time to  
explain something or help someone.  
Plus she loves coffee and cats"

**Macon Abernathy** "Macon is a really  
hard working, down-to-earth person, and  
I appreciate him!"

**Lauren Walker** "I appreciate your awe-  
some sense of humor and all the hard  
work you do!"

**Luisa Bertotto** "Luisa is such a great  
person to work with! She will be really  
missed when she graduates! June!"

Option #1  
White T-Shirt

Option #2  
Grey T-Shirt

Option #3  
Grey Hoodie

Shirt Pricing	
Option #1 White T-Shirt.....	\$20.00
Option #2 Grey T-Shirt.....	\$20.00
Option #3 Grey Hoodie.....	\$35.00
Option #4 Hoodie + T-Shirt Package.....	\$50.00

**ETOX T-Shirts:** Pre-order [here!](#)

## Future Conferences, Student Presentations, Student Achievements & Awards:

### Scott Coffin

Awarded NSF IGERT fellowship

Elected SoCal SETAC Student Representative

First author publication (**S. Coffin**, J. Gan, D. Schlenk. Comparisons of field and laboratory estimates of risk of DDTs from contaminated sediments to humans that consume fish in Palos Verdes, California, USA, *Sci Total Environ.*, 601–602, Dec 2017, 1139-1146)

Co-authored publication: (L. B. Moreira ... **S. Coffin**, ...D. Schlenk. Impacts of Salinity and Temperature on the Thyroidogenic Effects of the Biocide Diuron in *Menidia beryllina*. Feb 2018. *Environ. Sci. Tech.* 52(5)

### Luisa Bertotto

Awarded Environmental Sciences Outstanding Teaching Award

Awarded ORISE fellowship and a postdoc position in the laboratory of Dr. Tamara Tal at the EPA

Will be defending on June 8th at 9am in Science Laboratories 301

### Connie Mitchell

Received student travel award to attend the Teratology Society Meeting. Poster entitled "Disruptions in Nuclear Receptor Signaling Alters Triphenyl Phosphate Induced Cardiotoxicity in Zebrafish Embryos"

### Sara Vliet

Received student travel award to attend the Teratology Society Meeting. Poster entitled "Niclosamide exposure induces epiboly delay during early zebrafish development"

**Want to share any suggestions, announcements, shout-outs, or your accomplishments for the upcoming Fall issue?**

Please email Connie Mitchell (cmitc007@ucr.edu) or Sara Vliet (svlie001@ucr.edu)