

TOX QUARTERLY

The Official Publication of UCR Mini-ETOX GSA



Tox Quarterly Editors: My Hua, Victoria McGruer, and ETOX Mini-GSA Members

Content Provided by: Jin Chen, Seth Fernández, Victoria McGruer, Aalekhya Reddam, and ETOX Mini-GSA Members

ETOX in Grad Slam 2019

by Victoria McGruer, My Hua, and Jin Chen

ETOX third and second-year PhD students Jin Chen and C.M. Sabbir Ahmed competed in the quarter final rounds for Grad Slam 2019. Grad Slam is the annual UC-wide public speaking competition where graduate students have 3 minutes to present their research and its value. Attendees have the chance to vote for the Audience Choice award and the overall winner advances to compete against other UC campus winners.

Sabbir advanced to the Semi-Finals round and will be competing this coming Tuesday, February 19 at 1 PM at HUB 367. Come out to support Sabbir!

The UCR Grad Slam finals will be held on Monday, March 4th, 3:00-6:00 PM (Culver Center of the Arts in Downtown Riverside).



(Top) Jin speaks at quarter finals. Her talk is titled "Carbonyl: it's here, it's there, its toxicity gotta be clear" (Right Photo) Sabbir will compete in the Semi-Finals His talk is titled "Traffic-related particulate matter: a tiny player plays big on disease progression"



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Dr. Sihem Cheloufi is an Assistant Professor in the Biochemistry Department & Environmental Toxicology Program.

UCR ETOX Faculty Spotlight: Dr. Sihem Cheloufi

by Seth Fernández

Dr. Cheloufi obtained her B.Sc. degree in Molecular Genetics from King's College University of London. She then moved to Cold Spring Harbor Laboratory where she joined Dr. Gregory Hannon's group for her thesis project. Her doctorate work focused on investigating the role of small non-coding RNAs during mammalian development. She was awarded her Ph.D. in Genetics in 2010. Following her graduation, she joined the laboratory of Dr. Konrad Hochedlinger where she worked on identifying the key regulators of chromatin plasticity during cellular reprogramming. In 2017, she joined the departments of Biochemistry and Environmental Toxicology at the UC Riverside as Assistant Professor.

We also had the opportunity to sit down for a Q&A Session with Dr. Cheloufi:

Seth: What inspired you to go into research?

1. **Dr. Cheloufi:** When molecular biology took off with the Human Genome Sequencing Project--the field of genetics exploded. I got to meet influential people like Dr. James Watson when he inaugurated a building at Kings College in the UK. If it wasn't for the explosion of genetics, I would have gone to medical school like my brothers.

Seth: What has surprised you most about academia?

2. **Dr. Cheloufi:** The exchange of knowledge. You'd be surprised how much you teach but also learn from the students' different perspectives on class material. I might have an engineering student in my Molecular Biology class that asks a question I had never thought of, and I'd say, "Okay, let's look it up." The diversity of backgrounds in the classroom leads to diversity of thought, which I didn't expect. One part of academia that I like is the academic freedom. It's freeing to be able to research whatever interests you. Even though there are grants to write, stress, and long work hours I am confined to the goals of a company. Academia a very luxurious place.

Seth: What do you predict will be the next major research breakout in your field?

3. **Dr. Cheloufi:** Stem cell therapy and how to harness to cure cancer or regenerative medicine., and research concerning genome editing/CRISPR. Or even synthetic biology conducted at UCR, where we can make synthetic red blood cells with CRISPR to perform different tasks.

Seth: What piece of advice do you wish you were given when you were a graduate student?

4. **Dr. Cheloufi:** FOCUS FOCUS FOCUS. When you start graduate school your mind is naïve and you want to do everything. But it's good to have mini goals and its never too early to think about the big picture. You always need to have a goal in mind and its easy to not focus and venture off. To focus more on my main goals.

Seth: What do you do outside of lab for fun?

5. **Dr. Cheloufi:** If you asked me three years ago, I would've said exercising. Now, I have a three year old--so kid related stuff. It's just a different kind of exercise.

Seth: Why did you choose to work at UCR?

6. **Dr. Cheloufi:** The weather--I love the warm weather. I went from UK, Boston, and New York where it gets quite cold. The collegiatly of the university and how welcoming it is. Also, the family friendly environment where my children are close by campus, and my husband and I both can have working labs.

Environmental Toxicology Graduate Student News

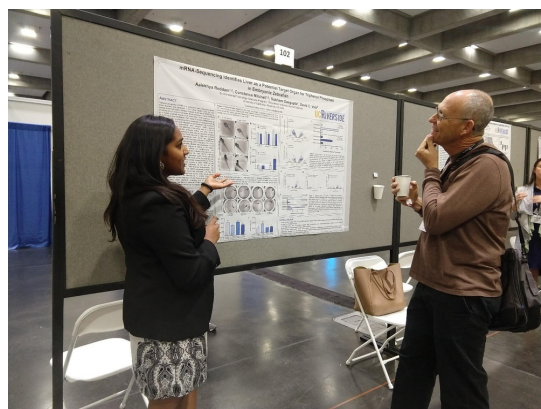
Compiled by Mini-ENTX GSA Members

- Student Spotlight: Lauren Walker Selected as Howard Garrison Public Affairs Fellow** Lauren Walker, a Ph.D. student working in Prof. Nicole zur Nieden's lab, has been selected by the Teratology Society as the first Howard Garrison Public Affairs Fellow. As part of the fellowship, Lauren will travel to Washington, DC in March to participate in the Capitol Hill advocacy day where Lauren and other FASEB members will meet with members of Congress and their aides to discuss the importance of federal funding for biomedical research. Congrats to Lauren! *Content is from ENTX News Blog curated by Dr. David Eastmond* (<https://etox-ucr.blogspot.com/2019/02/lauren-walker-selected-as-howard.html>)

Fall Recap! ENTX Students & Faculty at Events & Conferences



(Photo on Left) In Fall 2018, ENTX students and faculty sit down and have a chat over dinner.



(Photo on Right) Aalekhya Reddam presents a poster at the Society of Environmental Toxicology and Chemistry (SETAC) annual meeting

GSA Meeting Minutes: February 2019

by Seth Fernández

- The GSA Conference Travel Grant application will be online very soon! Keep an eye out for emails.
- Winter Grad Bash @ Getaway Cafe on February 20, 2019, 5:30-8:00 PM.

Other ETOX Program-Related Announcements

- Society of Toxicology (SOT) National Meeting Coming up in March 2019 in Baltimore, Maryland.
- Society of Research on Nicotine and Tobacco (SRNT) Meeting is in San Francisco, CA this week March 20-22, 2019.

Dissertation Defenses

Congratulations to **Cheryl Stork** who successfully defended her PhD dissertation on Thursday, February 14, 2019. Way to go **Cheryl!!!**

Upcoming Defense

Stacia Dudley will defend on **March 21st, 2019**. Time & Location: **TBA**

Sara Vliet will defend on **May 29th, 2019 at 9AM in 301 Science Labs**.

Dissertation Title: Leveraging Zebrafish to Identify Chemicals Disrupting Early Embryonic Development

UCR Environmental Toxicology Mini-GSA T-Shirt Fundraiser



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

If you are interested in purchasing a shirt, please fill out the order request form at <https://goo.gl/forms/BnEignaG6HqMslC32> and we will contact you to confirm order details and payment. If you have any questions please contact us at aredd006@ucr.edu.

Want a free t-shirt?!? Design a t-shirt idea and if yours is selected you get one for **FREE!**

Send submissions to aredd006@ucr.edu

ENTX Program Student and Faculty Publications

1. Ahmed, C.M.S., Jiang, H., Chen, J.Y., Lin, Y., 2018. Traffic-Related Particulate Matter and Cardiometabolic Syndrome: A Review 1–16. <https://doi.org/10.3390/atmos9090336>
2. Bertotto LB, Dasgupta S, Vliet S, Dudley S, Gan J, Volz DC, Schlenk D. 2018. Evaluation of the estrogen receptor alpha as a possible target of bifenthrin effects in the estrogenic and dopaminergic signaling pathways in zebrafish embryos. *Sci. Total Environ.* 651:2424-2431.
3. Dasgupta S, Cheng V, Vliet SMF, Mitchell CA, and Volz DC. 2018. Tris(1,3-dichloro-2-propyl) phosphate exposure during the early-blastula stage alters the normal trajectory of zebrafish embryogenesis. *Environ. Sci. Technol.* 52(18):10820-10828.
4. Dingle JH, Zimmerman S, Frie AL, Min J, Jung H, Bahreini R. 2019. Complex Refractive Index, Single Scattering Albedo, and Mass Absorption Coefficient of Secondary Organic Aerosols Generated from Oxidation of Biogenic and Anthropogenic Precursors, *Aerosol Science and Technology*, DOI: [10.1080/02786826.2019.1571680](https://doi.org/10.1080/02786826.2019.1571680)
5. Hamm JT, Ceger P, Allen D, Stout M, Maull EA, Baker G, Zmarowski A, Padilla S, Perkins E, Planchart A, Stedman D, Tal T, Tanguay RL, Volz DC, Wilbanks MS, Walker NJ. 2018. Characterizing sources of variability in zebrafish embryo screening protocols. *ALTEX* 36(1):103-120.
6. Hua M*, Omaiye EE*, Luo W, McWhirter KJ, Pankow JF, Talbot P. 2019. Identification of Cytotoxic Flavor Chemicals in Top-Selling Electronic Cigarette Refill Fluids. Accepted in *Scientific Reports* . * -Co-First Author
7. Mitchell CA, Dasgupta S, Zhang S, Stapleton HM, Volz DC. 2018. Disruption of nuclear receptor signaling alters triphenyl phosphate-induced cardiotoxicity in zebrafish embryos. *Toxicol. Sci.* 163(1):307-318.
8. Omaiye, EE., McWhirter KJ., Luo W., Pankow JF., & Talbot, P. Toxicity of JUUL Fluids and Aerosols Correlates Strongly with Nicotine Concentrations. 2018. Pre-print. bioRxiv 490607; doi: <https://doi.org/10.1101/490607>.
9. Omaiye, EE., McWhirter KJ., Luo W., Tierney PA., Pankow JF., & Talbot, P. High Concentrations of Flavor Chemicals in Electronic Cigarette refill Fluids. *Scientific Reports*, 2019. Accepted
10. Stinckens E, Vergauwen L, Ankley GT, Blust R, Darras VM, Villeneuve DL, Witters H, Volz DC, Knapen D. 2018. An AOP-based alternative testing strategy to predict the impact of thyroid hormone disruption on swim bladder inflation in zebrafish. *Aquat. Toxicol.* 200:1-12.
11. Vliet SM, Dasgupta S, Volz DC. 2018. Niclosamide induces epiboly delay during early zebrafish embryogenesis. *Toxicol. Sci.* 166(2):306-317.
12. Zhang, M., Ergin, V., Lin, L., Stork, C., Chen, L., Zheng, S., 2019. Axonogenesis Is Coordinated by Neuron-Specific Alternative Splicing Programming and Splicing Article Axonogenesis Is Coordinated by Neuron-Specific Alternative Splicing Programming and Splicing Regulator PTBP2. *Neuron* 1–17. <https://doi.org/10.1016/j.neuron.2019.01.022>

Have any news for our **Spring 2019 Edition? Please email My (Crystal) Hua (mhua002@ucr.edu) or Victoria McGruer (vmcgr001@ucr.edu) and share any ENTX-related news/events.**