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TOX QUARTERLY

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UCR COVID-19 Update: Testing on Campus

UC Riverside is still currently in the Phase II of its COVID-19 recovery plan. Therefore while limited on-campus research has resumed, most employees will continue to work remotely for the foreseeable future. UCR employees (including graduate students) will be able to get tested for coronavirus at a drive-thru site on campus. The drive-thru site will be at Parking Lot 26, and will operate from 8 a.m. to 4 p.m., including during the winter break. Appointments can be made online through this website: https://curative.com/sites/16577

IN THIS ISSUE

UCR ETOX Faculty Spotlight: Dr. Jason Cheng

by Victoria McGruer

Dr. Jason Cheng is the Graduate Student Advisor of the Environmental Toxicology Graduate Program and Professor in the Chemistry Department.

Dr. Quan Jason Cheng received his BS and MS degree in Chemistry from Nanjing University, China (in 1986 and 1989, respectively), and Ph.D. in Analytical Chemistry from the University of Florida in 1995. After a postdoctoral stint in a structural biology lab at University of California at Berkeley, he took a staff scientist position at Lawrence Berkeley National Laboratory from 1997 to 2001 where he later became a group leader. He joined the Department of Chemistry of the University of California at Riverside as an assistant professor in 2001, and was promoted to associate professor with tenure in 2007, and full professor in 2010. The research interest of his lab is centered around biosensing technologies with surface plasmon resonance, microarray, electrochemistry, functional materials, and surface-enhanced mass spectrometric methods. Dr. Cheng has published over 100 papers on various subjects including molecular interactions, supramolecular assemblies, biomimetic lipid membranes, bacterial toxins, electrospun nanofibers, SALDI-MS and cytotoxicity research.

1. As the new ETOX graduate advisor, how will you work to serve ETOX graduate students?

This is a difficult time for many of our students and faculties as well. As the Graduate Advisor, I will work closely with students (and their advisors) to provide support and guidance for their graduate study at UCR. My general role is to offer advices on student's coursework and progress of their study, to provide suggestions on qualifying committee, and to oversee DYP/GRMP and other fellowship applications. So please feel free to contact me whenever a question or a concern over the aforementioned subjects arises, and we will work out a plan to address it. The graduate advising is shared by me and ETOX Director, Dr Wenwan Zhong, who advises first year students. Currently the big concern is the pandemic, which has put an enormous amount of stress on our students. We want to make sure our students get sufficient support and advices on quarantine regulations, campus safety, continuous training and research progress, i.e., key matters that concern them. One of the main areas we work on now is first year students, whose graduate life is heavily impacted by the pandemic. We have put together a plan for what ETOX should be doing to help these students. We will form a guidance committee with Grad Advisor, Program Director, and faculty members from Student Affairs Committee for first-year students, and we plan to meet with them regularly to discuss their needs. We also have a large number of international students in our program who are facing even more challenges due to campus lockdown. We work with Graduate Division and International Students and Scholars (ISS) office to address their needs and concerns. Finally, we hope that we can engage Graduate Student Association (GSA) in helping reach out to students who may need additional guidance and support during this tough period.

2. What piece of advice do you wish you were given when you were a graduate student?

See the big picture and be aware of the tough road ahead. Always be in the state of learning. My advice is to absorb as much knowledge as you can (and publish as prolifically as you could). The Graduate School is a perfect place to acquire skills and build credentials.

3. What inspired you to go into research?

Curiosity. I have wanted to be a scientist since I was a teenager. Research gives me satisfaction, especially when a problem is solved.

4. How would you describe your research to someone who is not in your field?

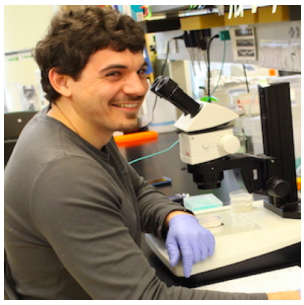
My lab develops technical methodologies (or technology) for detecting various molecular analytes including proteins, peptides, and pathogenic agents in complex medium. Known as biosensing, we utilize spectroscopic and imaging methods to quantify molecules that have significance in medical diagnosis. The main tool we employ is the label-free technique of surface plasmon resonance, which allows quantification of proteins and assessment of binding affinity without the need of a fluorescent tag. We also develop surface based mass spectrometric methods for cytotoxicity study at the single cell level and detection/identification of pathogens.

5. What do you like to do outside of work for fun?

I am an avid reader, especially about history. I also like to travel.

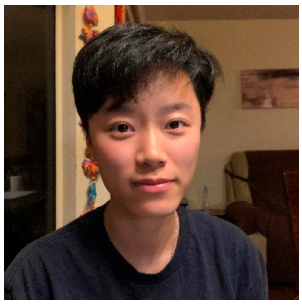
Environmental Toxicology Graduate Students

1st Year Graduate Students!



Kyle Anesko

Kyle graduated from the University of California, Riverside with a B.Sc.
Has joined **Dr. Adler R. Dillman's Lab.**

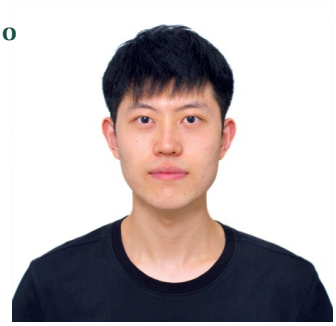


Xingyuan Chen

I lived and studied in Shenzhen, China before coming to America and I earned my undergraduate degree at the University of California, Irvine in 2020 as a General Biology major. I love playing sports and cooking in my spare time and I am really looking forward to joining the ETOX family!
Doing lab rotation in **Dr. Yinsheng Wang's lab.**

Zhongwen Cao

My name is Zhongwen Cao and I come from Dalian, China. I majored in Applied Chemistry at college. I like listening to music. If you want to recommend me some wonderful music, I will feel very happy.
Has joined **Dr. Yinsheng Wang's lab.**



Aleksandra Karapetrova

Sasha is from Chicago, Illinois and graduated Pomona College with a B.A. in Molecular Biology and a minor in Russian and Eastern European Studies. Her current research focus is studying microplastics in terrestrial ecosystems.
Has joined **Dr. Jay Gan's lab.**

Ching-Hsin Yang

I'm from Taiwan and my Chinese name is 楊景昕. I got my BS and MS in the Department of Agricultural Chemistry, National Taiwan University.
Has joined **Dr. Linlin Zhao's lab.**

Please join us in welcoming our new first year students! We hope that the first quarter has been treating you well :)

Graduate Student Publications

Dominguez, E.C.*; Heires, A.J.; Pavlik, J.; Larsen, T.D.; Guardado, S.; Sisson, J.H.; Baack, M.L.; Romberger, D.J.; Nordgren, T.M.* A High Docosahexaenoic Acid Diet Alters the Lung Inflammatory Response to Acute Dust Exposure. Nutrients 2020, 12, 2334.

Omaiye, E.E., Luo, W., McWhirter, K., Pankow, J., and Talbot, P. (2020) Electronic Cigarette Refill Fluids Sold Worldwide: Flavor Chemical Composition, Toxicity, and Hazard Analysis. Chem. Res. Toxicol. https://dx.doi.org/10.1021/acs.chemrestox.0c00266

Schaefer, M. V., Plaganas, M., **Abernathy, M. J., Aiken**, M. L., Garniwan, A., Lee, I., & Ying, S. C. (2020). Manganese, Arsenic, and Carbonate Interactions in Model Oxic Groundwater Systems. Environmental Science & Technology, 54(17), 10621–10629. https://doi.org/10.1021/acs.est.0c02084

Graduate Student Resources

• **Counseling & Psychological Services** – Get free, professional, and confidential mental health support (https://counseling.ucr.edu/)
• **Basic Needs** - Assists with providing emergency food support, emergency financial assistance through the economic crisis response team (ECRT) (https://basicneeds.ucr.edu/)
• **The Well** – COVID-19 wellness kits and masks are available to all students (https://well.ucr.edu/)
• **Student Health Services** – On-campus and off-campus guidance and resources for students experiencing health concerns (https://studenthealth.ucr.edu/)
• **Environmental Health & Safety's Coronavirus Webpage** – Campus updates, cases, research, return to work protocols, and wellness checks (https://ehs.ucr.edu/)