



American Chemical Society - Orange County Section

High School Awards Banquet

Tuesday, May 22nd 2018

**Titan Student Union
California State University Fullerton**

Registration	- 5:45 pm	Dinner (Italian Buffet)	- 6:00 pm
Speaker	- 6:45 pm	Awards Presentation	- 7:30 pm

Reservations: Register online through the Orange County American Chemical Society website www.ocacs.org. On the 'Education' tab, click on the 'High School Exam' button and then the 'Awards Dinner' button, or go to www.ocacs.org/acshighschoolexam.htm. Follow the directions to register all the guests and pay for their dinners with a credit/debit card or PayPal. Print out the PayPal receipt and bring it to the Banquet.

Registration and payment for the Dinner must be completed by **midnight on Thursday, May 17th 2018.**

To be seated with a particular high school's students, make sure you enter the name of the High School and we will do our best to accommodate you.

Cost: \$30 per person. The teacher of each student awardee and the student attend as guests of ACS, but reservations are required. No one can be seated for dinner without advance reservations.

Please remember to pay for the Dinners after filling in and submitting the online registration form.

E-mail questions to Helen Wagner at hwagner0227@gmail.com.

Directions:

Exit the 57 freeway on Nutwood Avenue and go west. Turn right onto North State College Blvd., right again on Student Union Way onto campus, and then make an immediate left. The Titan Student Union is on the right, followed by parking structure SCPS (State College Parking Structure). Be sure to park on level 2 or higher and buy a parking permit at one of the machines (cost: \$8). Parking permits can be purchased only with Visa, MasterCard or Discover, no cash is accepted.

Info at your Fingertips: An At-home Cancer Test

Alana Ogata

PhD Candidate, Department of Chemistry, University of California, Irvine

Abstract

The main theme of my talk is to be open. Be open to other ideas, to other people, to different career paths or different dreams. Be open to change. The greatest thing I have learned as a scientist is that while you cannot control unexpected changes, both good and bad, you are always learning and will therefore always have the power to also stimulate change.

I use chemistry to change the face of cancer diagnostics today. But my story will begin in high school, where I hated chemistry class. I was certain chemistry was not in my future. Entering as a math major into college, that mindset changed as I sat in on a chemistry lecture by my future research professor. She was using laser spectroscopy to solve study solar energy cells and I was immediately captivated. I joined her lab and for the rest of college, got the full experience of undergraduate research in a physical chemistry lab.

I had no plan for the next step but took the advice of my professor to apply to graduate school. I was certain I wanted to stay in solar energy research, and applied to PhD programs with professors in that field. I ended up at UCI, where I was set on joining a lab in solar energy cells, and then I randomly met a graduate student in Reg Penner's lab. Once again, my path totally changed. I joined Reg's lab and for the past four years have been working on electrochemical biosensors for medical devices that will enable people to detect cancer early.

During my time I've been heavily involved in collaborations with other labs and a startup, challenging me to be open to other people's working styles, ideas, and open to working in a team. Additionally, I have had experience working overseas in a lab that did not speak English as the primary language. The language barrier was huge and I had to change how I communicated and be open to new ways of interacting with lab members and understanding language and cultural differences. Even now as I finish up my PhD, I have no idea what exact career I want to follow, but I am not afraid of that. There are so many awesome opportunities out there that I am staying as open as possible to any opportunity I can pursue. For now, I am very excited by entrepreneurship and want to begin a startup that designs an at-home sensor for women's health. Finally, I want to encourage everyone to be citizen scientist and want this to be a part of my career.

Biography

Alana received her bachelor's degree at the College of William & Mary where she worked under Dr. Wustholz in a laser spectroscopy lab studying solar cells. Driven by her passion to study solar energy technology, she moved from the east coast to sunny California to pursue a PhD at UCI. After meeting Dr. Penner, Alana discovered the exciting field of biosensors and began a new path in electrochemical biosensors. Alana is currently developing biosensors for point-of-care cancer diagnostics in order to make cancer testing accessible to all. She collaborates with biochemistry labs at UCI and a start-up company, Phage Tech Inc., to bring these at-home cancer sensors to realization.