



Orange County Section April Dinner Meeting

College Awards Dinner Meeting

Wednesday April 24, 2019

Concordia University, Irvine

1530 Concordia West, Irvine, CA 92612

The Rho Programming Center (RPC) in Chi Rho Suites (the First Floor)

Gut Reactions: Using Chemistry to Uncover Functions of the Human Microbiome

Professor Elizabeth N. Bess, Ph.D.

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University of California, Irvine*

Registration & Social:	6:00pm	Dinner:	6:15pm
Presentation:	7:15pm	Awards Program:	8:00pm

Abstract: Within the human gastrointestinal (GI) tract there reside trillions of bacterial cells (microbiota) that harbor thousands of distinct genes (microbiome). This biosphere has evolved in the context of a diverse array of diet- and host-derived small molecules to which it is chronically exposed. Consequently, gut bacteria have developed numerous enzymes to respond to this chemical deluge; however, little is known about the chemical motifs metabolized and the impacts of those metabolites on health. The Bess Lab discovers chemical reactions encoded in the microbiome and uses this repertoire to understand the link between the gut microbiome and health, devising new ways to predict and prevent disease.

Biography: Dr. Elizabeth Bess joined the Department of Chemistry at the University of California, Irvine in Summer 2018. Her lab is fusing chemistry and microbiology to interrogate the chemical mechanisms by which the human gut microbiome impacts human health and disease. Dr. Bess was born in Salt Lake City, Utah. She received her B.S. degree from the University of Utah in Biological Chemistry in 2009. During this time, she performed research on pain perception in the Emergency Department at the University of Utah School of Medicine, worked as an autopsy assistant at the Utah Office of the Medical Examiner, and taught violin lessons to budding musicians. In 2015, Elizabeth earned her Ph.D. in Organic Chemistry. Under the mentorship of Professor Matthew Sigman at the University of Utah, she developed mathematics-based tools to quantitatively describe and predict the outcomes of catalytic reactions. As an HHMI postdoctoral fellow of the Life Sciences Research Foundation, Dr. Bess worked in the microbiology lab of Professor Peter Turnbaugh at the University of California, San Francisco (2015-2018). Here, she investigated how gut bacteria beneficially metabolize components of plant-based diets to prevent breast cancer. During her postdoctoral stint, Dr. Bess enjoyed leading yoga classes for UCSF scientists.

Reservations: Please visit <http://ocacs.sites.acs.org/collegeawardsprogram.htm> and make your reservations and payment online **no later than April 16, 2019 (Tuesday) 12pm noon**. All reservations and payments are final once they are submitted and we cannot accommodate any changes in reservations or refund your payment. Also, we cannot accept any payment at the registration on the day of event. For more information, please contact Dr. Allison Gotoh at ocacs.reservation@gmail.com.