

2014 WCC Rising Stars—Continued

Continued from Page 7

to solve tough problems. She began her research career in the lab of Dr. William Euler, examining surface modification of alloys for use in prosthetic devices and later obtained a NSF-REU position at Santa Clara University working under Dr. John Thoburn.

After graduating from the University of Rhode Island, *Lauren* worked in the Analytical Research and Development Department at Pfizer for one year before enrolling at the University of California Santa Barbara (UCSB) for graduate school. At UCSB, *Lauren* worked with Professor Steven K. Buratto on atomic-scale mass-selected clusters. She then traveled to the East Coast to perform research with Professor Cynthia Friend at Harvard University examining reaction mechanisms, surface intermediate formation, and the role of defects in surface reactions. In 2009, *Lauren* accepted a position at the University of San Diego as the Clare Boothe Luce Assistant Professor. At this primarily undergraduate institution, *Lauren* teaches inorganic, general, and physical chemistry and maintains a research group which examines how large petroleum-relevant molecules interact with modified oxide surfaces and how effective surface-supported hybrid materials are in the absorption of gas.

Throughout her career, *Lauren* has had several excellent mentors. While in graduate school, Professor Buratto provided guidance in *Lauren's* research project while allowing for scientific freedom which helped her to think critically. Dr. Paul Kemper, an instrument specialist in Professor Michael T. Bowers's research group, taught her the basics of how to design and build research instrumentation which *Lauren* continues to use today in her group. Furthermore, Professor Ram Seshadri encouraged *Lauren* to become involved in international material chemistry workshops which has influenced her current research area. He also continues to be a voice of encouragement.

Lauren's post-doctoral advisor, Professor Cynthia Friend, mentors *Lauren*, particularly on how to improve her writing and honing her critical thinking skills. Now at the University of San Diego, *Lauren* credits her department and particularly Dr. Tammy Dwyer and Dr. Deborah Tahmassebi for their support in her career.

Lauren strives to inspire the love of chemistry and research in her students, similar to Mrs. Sullivan. "I am a big believer in intrinsic motivation—one should do what makes one happy, even if it is challenging!" As the Clare Boothe Luce assistant professor, *Lauren* sends two female students every summer to research experiences at Ph.D. granting institutions. She also hosts book clubs and movie nights on chemistry related media to allow the students to know her on a more personal level. *Lauren* explained that it is rewarding to work with undergraduates and watch them become critical thinkers. As one of the WCC Rising Star Award winners, *Lauren* has demonstrated how the spark from one high school teacher can influence many chemists. Congratulations!

Prof. Elizabeth Jarvo

By Ellen A. Keiter



It was in her high school Advanced Placement chemistry course that WCC Rising Star **Dr. Elizabeth (Liz) Jarvo** first realized her love for the subject. The next big step in her choice of chemistry as a career came at the end of her freshman year

in college when she joined the research lab of Professor Youla Tsantrizos at Concordia University in Quebec as a visiting summer research student. As a result of that experience, she says she was "hooked."

Continued on Page 9

2014 WCC Rising Stars—Continued

Continued from Page 8

Liz, who grew up in Canada, earned a BS degree in chemistry, with honors, from Acadia University in Nova Scotia in 1997. She elected to further her education in the US, completing a PhD in chemistry at Boston College in 2002, followed by three years as a post-doctoral fellow at Harvard University. In 2005, she joined the Department of Chemistry at the University of California, Irvine (UCI) as an Assistant Professor, rising to the rank of Associate Professor in 2012.

At UCI, *Liz* leads a dynamic research group engaged in mechanism-based design of new reactions using organometallic catalysts and applying these transformations to complex target-oriented syntheses. In a collaborative effort with UCI Medical School researchers, new com-

pounds produced in her group having structural similarity to agents with known biological activity are tested for effectiveness against certain cancer cell lines. What *Liz* says she most enjoys about her current role is “working with talented graduate students and getting to ask questions about reaction mechanisms.”

According to *Liz*, she has benefited from a number of “fantastic mentors” throughout her professional development. She specifically named Prof. Scott Miller (her PhD advisor), Eric Jacobsen (her postdoctoral advisor) as well as Prof. Mike Kerr and Prof. Youla Tsanztrizos (her undergraduate research advisors). She credits them with teaching her numerous lessons about conducting research “from the virtues of running a proper control experiment to how to choose and dissect problems.”

2014 Cope Scholar

Prof. Abigail Doyle

By Alice Lurain

Prof. Abigail G. Doyle received the 2014 Arthur C. Cope Early Career Scholars Award sponsored by the Arthur C. Cope Fund for her “discovery of mechanistically novel and synthetically useful methods for selective, catalytic C–C and C–F bond formation.” This award is designed to recognize and encourage the excellent work in organic chemistry by researchers who have fewer than 10 years of experience since their terminal degrees.

Prof. Doyle earned her undergraduate and master degrees in Chemistry and Chemical Biology from Harvard University in 2002. She began her doctoral studies at Stanford University developing gold catalysts for the hydration of unactivated alkenes in the laboratory of Prof. Justin Du Bois, and then returned to Harvard in 2003 to join Prof. Eric Jacobsen’s group.

Her research there included the discovery of a transition metal-catalyzed enantioselective alkylation of tributyltin enolates with alkyl halides and the development of a thiourea catalyst for enantioselective nucleophilic additions to prochiral oxocarbenium ions. A native of Princeton, NJ, she has been an Assistant Professor in the Department of Chemistry at Princeton University since July 2008.

As part of the Cope Scholars Symposium at the Fall 2014 National Meeting in San Francisco, *Prof. Doyle* presented a talk entitled “New reagents and strategies for catalytic nucleophilic fluorination.” She highlighted the importance of fluorinated organic molecules in medical, agrochemical and materials applications due to the unique chemistry of these compounds, while noting the relative paucity of practical synthetic methods for carbon-fluorine bond formation.