

Successful Women in Chemistry Series—Continued

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team member with exceptional problem solving skills and capability to produce high quality results.

Katie takes each day at a time so that she can balance work and life. Priorities constantly change and being prepared helps to ease stress. She says, “You simply have no control over some matters and must trust yourself to handle them the best way possible. With two young children, a husband, a dog, and a career to balance takes some logistics - but *Katie* wouldn't change it. She tries to keep home life relaxed and does not over plan weekends and evenings. *Katie* says, you really need the down time, especially with family. Her husband Matt constantly reminds her to slow down and enjoy the simple things in life. She gives most of the credit for balancing her life to her family. Simple things make her happy, like going for ice cream together, a quiet dinner, or taking her dog for a walk.

Katie's advice for women in chemistry is that you will have to navigate through personalities, prejudices, etc., regardless of which job you choose. However, if you love what you do and you give it your best, obstacles somehow seem less formidable and a lot of times they simply work themselves out. Don't be afraid to step out of your comfort zone and learn something new, get an additional degree, or train to run a half-marathon! You will be surprised what you can do when you challenge yourself, and what you learn about yourself in the meantime.

Dr. Nicole Crane **By Lisa Houston**



Dr. Nicole Crane, 2014 Rising Star Award Winner, received her B.S. in Chemistry from Kutztown University (Pennsylvania) in 2000. She then headed to Ann Arbor to attend the University of Michigan where she received a Ph.D. in Analytical Chemistry in 2004. After graduation, she completed two Post docs, one as a Visiting Scientist in the Counterterrorism and Forensic Science Research Unit at the FBI Academy in Quantico, Virginia and one for the National Institute

of Diabetes, Digestive and Kidney Diseases (NIDDK) at the National Institutes of Health in Bethesda, Maryland. Each of these provided *Nicole* with the opportunity to develop her skills in applied spectroscopy and imaging.

Nicole began her independent career at the Naval Research Center in Bethesda, Maryland applying her analytical and spectroscopic expertise in 2007. After one year, she decided

to see if the “grass was greener” somewhere else and took a position at Wyeth Pharmaceutical as the Analytical Development Manager. There she applied FTIR spectroscopy, near-infrared spectroscopy, and Raman spectroscopy to characterize raw materials, drug substances, and drug products and developed spectroscopic models for at-line and in-process monitoring. After less than a year on the job, Wyeth was purchased by Pfizer and *Nicole* decided to return to the Naval Research Center.

Nicole's research centers on development and utilization of spectroscopic techniques including Raman and FTIR spectroscopies and visible reflectance imaging to improve the understanding of wound healing, particularly traumatic acute wounds, as well as identifying and quantifying transplant associated ischemia and reperfusion injury. She initiated the Advanced Surgical Imaging Program within the Regenerative Medicine Department for the U.S. Navy and developed new technology to further evolve research projects. In addition, she has been an Associate Professor at the Uniformed Services University of Health Sciences since 2011. She is a big believer in trying to make the world a better place and her drive comes from knowing that her work may one day change a patient's life for the better.

Nicole feels that hard work, ambition and support from her mentors have gotten her where she is today. She feels very fortunate to have had some stellar mentors – people that have believed in her and pushed her to succeed – including her mother and grandmother and a number of undergraduate and graduate advisors. In fact, her advice to other women in chemistry in something her mother always told her – the sky is the limit! *Nicole* also advises to not be afraid to go after what you want. No one is going to hand it to you – when the opportunity arises, grab it and hold on tight.

Dr. Michelle Claffey **By Lisa Houston**

Great chemistry teachers in high school and college and her chemistry aptitude inspired 2014 Rising Star Award Winner **Dr. Michelle Claffey** to pursue chemistry further. *Michelle* grew up in Connecticut and attended Bates College in Lewiston, Maine where she graduated magna cum laude with a B.S. in Chemistry in 1994. As an undergraduate, she worked three summer internships at Pfizer as a medicinal chemist which exposed her to hands-on organic synthesis in a research environment. The practical application of organic chemistry sparked her desire to focus on organic chemistry at the graduate level. She attended the University of California at Berkeley where she did her graduate research in natural product synthesis.

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