

Successful Women in Chemistry Series—2012 WCC Rising Stars Profiles

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Dr. Megan Sassin U.S. Naval Research Laboratory

Dr. Megan Sassin, Research Chemist at the U.S. Naval Research Laboratory (NRL) and 2012 WCC Rising Star awardee, traces her interest in chemistry to her high school years. She says she found the subject especially appealing because it allowed her to use both her creative and methodical natures to solve a wide variety of problems. She was also drawn to it because of the many options it offered both for specialization within the discipline and for the type of position one could pursue.

Megan ultimately chose to specialize in electrochemistry, earning a Ph.D. from the University of California, Irvine in 2007 followed by a National Research Council postdoctoral fellowship in the Advanced Electrochemical Materials section at NRL. Megan is currently a staff scientist at the NRL where she focuses on the design, fabrication, and characterization of multifunctional 3D electrode architectures for energy-storage applications. Megan obviously has found her niche as she is “truly excited to go to work every day; especially on days when she knows she will be in the lab.” Megan describes the most satisfying aspects of her current work as “solving problems, having the flexibility to pursue what interests her, making a difference in the world, and presenting the findings to an audience.” Regarding that last point, Megan added, “After all, I did attend a performing arts high school, so I like to be on stage!”

Megan identified several individuals who have been important in her development as a chemist, beginning with three of her undergraduate professors at Southwestern University who encouraged Megan to pursue a Ph.D. in chemistry and continued to provide valuable support while she was in graduate school. Megan also singled out her postdoctoral adviser at NRL, Dr. Jeffrey W. Long, as well as her current section head, Dr. Debra Rolison who promotes a positive work atmosphere and challenges every member of her team to reach their full potential. Finally, Megan credits her husband (a fellow chemist) who, by his full support of her choice to be a research chemist, makes it possible for her to “have it all”. Megan’s dedication to science extends well beyond her own career. She is also active in efforts to promote broader participation of women in the discipline. While a graduate student at UC-Irvine, Megan founded a chapter of Iota Sigma Pi, the national honorary society for women in chemistry, and she is currently president of NRL’s Women in Science and Engineering (WISE) chapter.

To anyone seeking a satisfying career, Megan offers three points of advice: 1) find a subject that excites you and you are passionate about; 2) find a work environment/team that suits you; and 3) find a place that lets you use your skills and, at the same time, provides ample opportunities to learn new skills.

— Ellen Keiter

Dr. Malika Jeffries-EL Iowa State University

Prof. Malika Jeffries-EL, a 2012 WCC Rising Star, has always been interested in understanding and learning how things work. Malika participated in a summer science program for girls and discovered that becoming a chemist was one way to study how things



work. After receiving her first periodic table, Malika became excited about all of the possibilities for combining elements and was encouraged by her mother to pursue science. At Wellesley College, Malika’s organic chemistry professors, Drs. Jean Fuller and David Haines, influenced her towards a path in chemistry. After completing her Ph.D. at George Washington University, Malika spent one year at Smith College as a Mendenhall Fellow, and received a post-doctoral fellowship to work at Carnegie Mellon with Professor Richard McCullough. Malika joined the chemistry department at Iowa State University in 2005, and was promoted to associate professor with tenure in 2012.

Malika’s research focuses on the development of organic semiconductors—materials that combine the processing properties of polymers with the electronic properties of semiconductors. Malika has authored over 20 publications, and has won numerous awards including the 3M untenured faculty award, Emerald Honors for most promising minority scientist, the Lloyd Ferguson Award from National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCCChE), and an NSF CAREER award. To date, she has mentored over 30 students and postdocs. Malika’s keys to success are to “stay curious, work hard, and build a great network. Chemistry is not done in a bubble.” She also finds ways to balance work and life, even though that can sometimes be a challenge. Malika has friends who convince her to take breaks, and she makes time for exercise and hobbies to relieve stress.

Malika has important advice for future generations of women who want to go into the chemical profession – expose yourself to many aspects of the field and love the science. You do not need to decide on your field of specialty early in your career. For example, Malika was initially interested in forensic chemistry, but switched her focus to materials science after learning about conjugated polymers. She encourages young scientists to explore all of their options; in addition to traditional careers in industry or academia, there are many opportunities for chemical professionals.

— Christine Chow