

Successful Women in Chemistry Series

Professor Jong-In Hahm By Amy Balijs



Professor **Jong-In Hahm**, one of the WCC Rising Stars Awardees, obtained her B.S. degree from Seoul National University and her Ph.D. from the University of Chicago. Following her post-doctoral research at Harvard University, *Jong-In* began her independent career in the Department of Chemical Engineering at Pennsylvania State University before relocating to the Department of Chemistry at Georgetown University. Her interests in interdisciplinary research combining materials and biological science began when she worked in the NSF funded Materials Research

Science & Engineering Center with Professor *Steven Sibener* at the University of Chicago. Her current research focuses on the synthesis of nanomaterials for advanced biotechnological and clinical research including enhanced biomedical detection and optoelectric devices. *Jong-In* also probes how biological entities can control and promote inorganic nanomaterials production.

Jong-In credits her high school teachers and college professors as being the most influential people. She distinctly remembers the enthusiasm of her high school physics teacher explaining static charges. The teacher's passion was contagious, leading *Jong-In* to pursue a career in science. She also has worked with several professors who were equally passionate about science, in particular Professor *Junghun Suh* and Professor *Charles Lieber*. She has translated this enthusiasm into her current position, where *Jong-In* influences young minds and helps ignite their desire to pursue a scientific career. Furthermore, *Jong-In* enjoys the flexibility to pursue research projects that she is curious about while discovering ways to advance lives.

Originally from Korea, *Jong-In* admits that she does not get much time to travel home to visit family and friends. This is the hardest compromise for *Jong-In* as she pursues her career. Besides receiving the WCC Rising Star Award, she also obtained the ACS WCC Lectureship Award in 2007 which was designed to provide early and mid-career female chemists travel funds to present their research at Ph.D. granting institutions. She also recently obtained tenure and is on the editorial board of the *Journal of Analytical and Bioanalytical Techniques*.

When asked what advice she would give other women in chemistry, *Jong-In* replied: "Do not give up your passion for science. Challenging events do happen in one's career whether it is related to family issues, personal choices, and other profession reasons. Women may experience more of these challenges due to acknowledged/unacknowledged societal issues. Regardless, it is important not to give up." Based on her current accomplishments, *Jong-In* is following her own advice and has shown that she has not given up her passion for science.

Dr. Joy Haley By Ellen Keiter



Dr. Joy Haley (née Rogers) of the Air Force Research Laboratory and a 2013 WCC Rising Star says she got "turned on to chemistry" in her high school chemistry class. Although initially interested in biology, she ultimately chose to pursue a degree in chemistry, graduating with a B.S. degree from Frostburg State University in 1996. After being advised by an undergraduate mentor, *Dr. Don Weser*, that she needed to find her "niche" within chemistry, she soon found it when she took a course in analytical chemistry, an area that "really clicked" for her. That led her to enter a

graduate program in chemistry at the University of Maryland, Baltimore County where she specialized in photochemistry and earned a Ph.D. in 2001.

In that same year, *Joy* joined the Materials and Manufacturing Directorate at the Air Force Research Laboratory (AFRL), first as a post-doctoral fellow and then as a research scientist. She says that's where "the real world really started" for her. She found herself "surrounded by physicists, engineers, materials scientists, and a handful of chemists" and had to deal with the challenge of communicating with scientists in other disciplines. Now, twelve years later, she says "it has been a great adventure and opportunity."

Joy is recognized within the AFRL and well beyond as an expert in the photochemistry of nonlinear optical materials. She has a very impressive record of publications (55) and invited presentations (10) and is credited with helping to establish a state-of-the-art facility for photophysical measurements at the AFRL. She was recently appointed Assistant Chief Scientist in the AFRL's Materials & Manufacturing Directorate, a position that has given her a broader understanding of how the directorate operates and how it relates to Air Force needs. While she values the perspective this staff position has provided, it has also led her to realize that she truly misses doing research and the collaboration that goes with it. For this reason, she looks forward to returning to the lab at the end of her two-year term.

Joy believes that achieving a balance between work and home is "key to a successful life" and says she has "absolutely!" found this to be a challenge, especially since the birth of her daughter in 2010. However, she adds that one of the things she appreciates about her current position is that the Air Force takes family very seriously.

Joy recommends chemistry as a career choice for anyone who really enjoys the subject because of the many avenues for employment it offers beyond academia and industry--science writing, patent law, and areas of medicine, to name a few. She emphasizes that individuals contemplating a career in chemistry should like working with other people because that's a necessary element for advancing the discipline.