

Successful Women in Chemistry Series—2012 WCC Rising Stars Profiles

Gretchen M. Schroeder, Ph.D.
Bristol-Myers Squibb

Dr. Gretchen Marie Schroeder one of the 2012 WCC Rising Stars was born in South Bend, Indiana, and raised in Carrollton, Texas. After graduating from high school, Gretchen decided to attend Boston University. After taking organic chemistry during her sophomore year, Gretchen found her calling. Gretchen performed undergraduate research in the laboratory of Professor Kosta Steliou, where she synthesized biotin-derived catalysts for asymmetric epoxidation of olefins, for which she received an undergraduate award for distinction in research. During the summer, Gretchen chose to diversify her research experience at the University of Texas Southwestern Medical School, where she worked as a summer intern in molecular biology labs examining molecular pathways controlling development of the heart.

Gretchen graduated summa cum laude from Boston University in 1997 and then joined Professor Barry M. Trost's research group at Stanford University. Gretchen's doctoral work centered on the palladium-catalyzed asymmetric allylic alkylation of prochiral nucleophiles and the application of these methods to the total synthesis of natural products, including (+)-alloyathin B2. While at Stanford, Gretchen earned numerous awards including a National Science Foundation & Division of Organic Chemistry Graduate Research Fellowships. Her work in Professor Trost's lab resulted in nine articles being published in peer-reviewed journals.

After graduating from Stanford University in 2002, Gretchen accepted a discovery chemistry position at Bristol-Myers Squibb in Princeton, New Jersey, where she joined the Oncology Chemistry Group. She has had the privilege of working with a number of talented project teams on a variety of oncology targets including the Eg5 mitotic kinesin motor protein, c-Met kinase, JAK2, and the Bcl-2 family of proteins. Notably, she is co-inventor of two compounds in human clinical trials. Gretchen was awarded the 2012 ACS WCC Rising Star Award for Excellence in the Design and Synthesis of Novel Oncology Agents Resulting in Various Clinical Candidates.

In her free time, Gretchen enjoys spending time outdoors and can usually be found running, rock climbing or hiking with her dogs.

What should people look for in a satisfying career?

I believe the key to a satisfying career is finding something that you love to do at a place that you enjoy doing it. Both are essential.

What do you like best about your current work?

I love the challenges that present themselves in drug discovery. A medicinal chemist experiences countless setbacks and failures. Just when you think you have the ideal compound with the right target potency and attributes to create a drug, a piece of data comes in that throws you a curve ball. The sometimes unpredictable nature of drug discovery makes the successes even more rewarding.

— **Kelly George**

Dr. Annaliese Franz
University of California – Davis

Dr. Annaliese Franz, 2012 WCC Rising Star, developed an interest in science very early in life. As a young child, she was always inquisitive and enjoyed many kinds of hands-on activities. In high school, her focus turned to chemistry. Along the way, several amazing and inspirational teachers as well as her parents provided invaluable support, she says, "not because I was the top student but probably because they recognized my passion for science."

A passion for science is certainly evident in Annaliese's approach to her work and her record of accomplishment. After earning a Ph.D. in organic chemistry from the University of California, Irvine in 2002, she completed postdoctoral appointments at Harvard University and then continuing at the joint Harvard/MIT Broad Institute. In 2007, she joined the Department of Chemistry at UC-Davis as an assistant professor where she currently mentors a large group of students in a very active research program focused on synthetic methodology, organosilicon chemistry, and asymmetric catalysis. Among the things she most values about her position are being able to pursue new ideas and learning something new every day. She also finds it very satisfying to work with graduate and undergraduate students, sharing and discussing research ideas with them and seeing them develop satisfaction in their own research.

While she acknowledges that finding a good work/life balance can be a challenge, Annaliese follows the "work hard, play hard" motto. She says "I would rather pour on the steam to write another grant, pursue new collaborations, or devote extra time to mentoring my students" and then later engage "in a true escape, such as a trip to Costa Rica or a visit with my family." She also enjoys devoting a certain portion of her time to outreach activities, especially to promote science to girls, but she considers these to be on the "fun" side of the work/life ratio rather than work because they typically involve an inspirational group of people who contribute to her love of chemistry. She also makes time in her regular routine for jogging with her dogs, hiking, and gardening.

Annaliese believes it's important to "find a career where you can get caught up in your work and lose track of time because you are so excited about the ideas and the people you work with." In addition, she advises, "Be passionate and don't spend too much time comparing yourself to someone else. There is always someone who is farther along than you or more successful in one way or another. Ask your own questions, find your own answers, and look for the ways you can best contribute to chemistry and science."

— **Ellen Keiter**