Overview

Research in Dr. Sung’s laboratory is focused on the regulation of gene function at the chromatin level in plants. Polycomb group (PcG) and trithorax group (trxG) proteins play evolutionarily conserved roles in the epigenetic regulation of gene expression. The mutually antagonistic activities of PcG and trxG proteins promote the stable and maintenance of repressed and active transcriptional states, respectively, via histone modification on the target gene sequences. She was also the former Associate Dean of Graduate Services where she created programs to help create a diverse and inclusive environment.

This interview was conducted in 2010.

Early Life and Education

Dr. Z. Renee Sung, a Professor of Plant and Microbial Biology at the University of California, Berkeley, has always been interested in what she studies. “Plants provide energy; they are a food source for human beings, and are important to maintaining a healthy environment,” she says. Throughout her distinguished career in the environmental field, Sung has studied plants and their processes from a variety of perspectives.

After earning her undergraduate degree in botany in her native Taiwan, Sung came to the United States to get her doctorate in plant physiology from the University of California, Berkeley (UC Berkeley). She then assumed a post-doc position at Massachusetts Institute of Technology, where she did pioneering work in helping develop a new research field called plant somatic genetics. After that, Sung returned to
Berkeley where she has remained throughout her career. “I was fortunate to be involved in a field that Berkeley was looking for more people in at that time,” she says. She has also conducted research at the Brookhaven National Laboratory and the Max Plank Institute of Cell Physiology, and has been an Associate Dean in the Graduate Division since 1995.

**Importance of Mentoring to Career**

While Sung enjoyed much professional success, she struggled for it largely without inspiration from mentors. “Being at a large university, it was a challenge to build relationships with other people who could have provided advice about how to survive in such a competitive environment,” she explains. Looking back at her career, Sung reflects that she might have benefited both personally and professionally from mentors, and strives to give her own students frank and helpful advice. “I have tried very hard [to mentor] since I realized what I missed,” she says. “If people come to me, I always take a very active interest and try to give very direct advice.”

Sung has dealt directly with diversity issues during her career at Berkeley. As Associate Dean in the Graduate Division, one of her main duties is to manage the Graduate Opportunity Program that promotes minority enrollment and retention. Sung took over those duties just as a California law banning affirmative action went into effect, and she has led efforts to re-tool the program while still complying with the law. “We have moved not to let this legislation affect minority enrollment,” explains Sung (Berkeley has a tradition of pioneering student diversity efforts). “We have revised the programs so that they are in compliance with the law, but are still able to help maintain minority enrollment. I also organized the first UC system-wide diversity forum to discuss ways in which to continue to promote diversity on campus in spite of the new laws.”

**Highlights**

Sung says she is most proud of surviving and thriving in a highly competitive academic environment, where she has had numerous scientific achievements and published in many of the major scientific journals. Sung says the academic environment can be especially difficult for a minority female lacking mentors, but she draws strength from her upbringing. “I feel like growing up in Taiwan as part of the majority and not as a minority gave me confidence,” she says. “When I came to the U.S., I had the confidence to face the challenges ahead.” Sung has this advice for minorities interested in the environmental sciences: “Seek help if you run into hardships. Don’t quit in the face of adversity.”