Dr. Mary Mahaney: Women Chemists in Industry

When Dr. Mary Mahaney was a chemistry graduate student in Germany in the 1970s, she needed liquid nitrogen to run her experiments. Mary requested to be trained on the equipment for liquid nitrogen. Unfortunately, her request was denied because, as the liquid nitrogen technician told her, “You are a woman.” Instead, every time Mary needed liquid nitrogen, the technician collected it for her. Eventually, when Mary was running an experiment over a long holiday weekend that required liquid nitrogen, the technician relented and taught her how to use the machine herself.

Approximately 30 years later, Dr. Mahaney is now the manager of the analytical chemistry group at Haartz Corporation in Acton, Massachusetts, where she has worked for the previous ten years. Dr. Mahaney acknowledged that the situation for women has changed drastically during the course of her career. “I’ve seen such big strides,” Dr. Mahaney said. “Now women expect to be treated fairly.”

**Discrimination**

For the most part, women in the chemistry industry in the greater Boston area confirmed that they are, in fact, treated fairly. Dr. Katherine Lee, a research scientist at Wyeth Company, went one step further. “It can be an advantage,” Dr. Lee said. “When you go to meetings and conferences, you are more visible. People remember you.” Nonetheless, several women said that they had experienced subtle dis-
crimination during their careers. In particular, after a woman returns from maternity leave, colleagues may question whether she is still as committed to her job as she was before the leave.

**Career Choices**

Many women chose to pursue a career in industry because they thought that industry would be more family friendly than other career paths such as academia. Dr. Sandy Gould of Millennium Pharmaceuticals said, “One of the things that put me off from academics is the lack of role models for women who have careers, who have families, who are balanced.” Further- more, the time when female professors are working towards tenure often overlaps with when they might want to start a family. Women who work in industry are better able to find a good balance between career and family. Conversely, there are women who choose their career paths for reasons that are unrelated to being female. For example, after Dr. Dana Buske finished her Ph.D. in organic chemistry at MIT, she joined an environmental engineering firm. “I didn't really like lab work,” Dr. Buske said, “but I liked the process of doing research and writing papers.” Although she is not directly using her organic chemistry knowledge in her current job, Dr. Buske explained that she uses the general research skills that she developed at MIT. These skills help her, for example, in advising companies on how to lower their toxic gas emissions.

**Support for female professionals**

Many companies have adopted policies designed to help women be successful. For example, Dr. Diane Joseph-McCarthy, associate director in Infection Computational Science at AstraZeneca, explained that at AstraZeneca, they provide free backup child care for times when school is not in session. They also allow employees to take five days of excused absences, which are different from vacation days, to care for a sick child.

Many women have options to limit their exposure to toxic chemicals during pregnancy. For example, some women are encouraged to stay out of the laboratory during their entire pregnancies. Instead, they may do computer-based work, such as data analysis and project management.

Companies also provide female employees opportunities to network and improve their managerial skills. For example, Dr. Lee and Dr. Joseph-McCarthy were involved in a program called “Women as Leaders in Discovery,” in which a group of forty women met every two months with an outside consultant. The program, according to Dr. Lee, helped to make the women more effective leaders and communicators.
Dr. Gould was involved in a program called “LEAD,” organized by Women Unlimited. This program, while not designed specifically for chemists, was nonetheless extremely helpful, according to Dr. Gould. “It is interesting to hear someone from Comcast talk about their experiences, and find that it is not that different from what I’ve experienced,” Dr. Gould said. “We all worry about the same things.”

Female-specific networking groups have also been helpful for some women. Dr. Buske and Dr. Lee were both active in a women in chemistry group while they were graduate students at MIT. Dr. Buske explained that the group allowed her to network and meet other women who she was not meeting while working in the laboratory. “It is important to realize that networking is something that men have always done,” said Dr. Lee, and women-specific networking groups afford women the same opportunities.

**Challenges**

Dr. Gould explained that women in industry still face particular challenges. Women need to be careful when criticizing a co-worker, as they may be characterized as “catty,” whereas men do not need to be as cautious.

Dr. Corinne Bauer of BIND Biosciences said that at a previous job, meetings sometimes began at 8 AM, a time that was particularly difficult for her and other women with children. When women complained about the meeting time, they were viewed negatively by some of their other co-workers. “This shouldn’t have been an issue at all,” Dr. Bauer said.

Even though the male to female ratio at many levels in companies is approaching 50-50, the upper level managers remain predominantly male. This phenomenon may be because many of these positions are extremely time-consuming, and women may not be interested in sacrificing to reach that level in the company. Millenium Pharmaceuticals, where Dr. Gould works, may be an exception to that trend, as they have many female managers.

**Concluding thoughts**

When asked what advice she would give to female graduate students and post-docs deciding on a career path, Dr. Gould said, “Think about what is going to make you happy and then think realistically about what that requires. You can think that it all works out and you can do everything…but you have to be realistic about what that all means. Something has to give.”
Companies can, and have been, implementing a variety of policies to make things easier for women. As Dr. Grazia Piizzi, a researcher at Novartis, said, “I feel lucky to work for a company like Novartis that recognizes how difficult it can be for women.”

Author’s note: Thank you to everyone who took the time to speak with me about their career. I found our discussions extremely interesting and highly rewarding.

From an article in the October 2009 issue of The Nucleus by Mindy Levine Ph.D.