



Dr. Donna Nelson - Chemist

1



When I was a child my parents taught me to believe that I could do anything I wanted to. But when I arrived at the University of Oklahoma to be a professor of chemistry, I began to have my doubts. I was a young scientist, a mother, and the only woman and Native American in my department. It would have been helpful to have someone to teach me how to be a scientist and a mother at the same time, and how to survive being “the only one.”

Since there was no one in person I could talk to, I turned to history and learned about a woman named Madame Marie Curie (<http://www.aip.org/history/curie/>). Madame Curie was the first woman in France to receive a Ph.D. in science and the first woman to lecture at the prestigious Sorbonne University. (<http://www.univ-paris1.fr/>) Her work

mostly focused on the uses of radiation in medicine. She won Nobel prizes in physics and chemistry, and became the first person to receive this award twice. (<http://www.nobel.se/>) On top of all these accomplishments, Madame Curie was also a mother. She took her daughter Irene everywhere with her, including the lab. Irene grew up to be a scientist and was awarded the Nobel Prize for chemistry in 1935.

Like Madame Curie, I wanted to spend as much time as possible with my child, but needed to focus on my career as well. Since I was a new faculty member, I had lots of work to do in the evenings and weekends, so I decided to take my son with me to my office while I worked in the lab next door. He soon became very comfortable with the world of science, and he is now in college and majoring in chemical engineering.

The female graduate students in the chemistry department told me they were grateful for the example I provided. I showed them that it is possible to be a woman chemist and have a family too. While I was happy to provide some guidance for these students because I understood what it felt like to be isolated, I was still struggling to find a community of females, Native Americans, and other minorities in the sciences.

Before arriving at the University of Oklahoma, I never felt out of place. (<http://www.ou.edu/>) I grew up in Eufaula, Oklahoma, the capitol of the Creek Nation. (<http://www.rootsweb.com/~itcreek/>) I don't think there was anyone in town that wasn't at least some part Indian. In fact, I recall vividly in grade school that we all thought it was strange if someone didn't have any Indian blood!

Early on I knew I enjoyed math and science. I had an ability to do things very logically and I always enjoyed difficult brain teasers and solving problems. In my school, boys and girls were equally encouraged. I was never made to feel that because I was a girl I couldn't succeed in math or science. In fact, in my advanced math class, there were five girls and only one boy!

My decision to attend college was an easy one. My parents and teachers were excited for me, and after a little deliberation, I decided to major in chemistry at the University of Oklahoma. However, when you grow up in a community like mine, it is very strange to leave that environment and find out that you are suddenly in the minority. It was a huge shock for me those first few days college when suddenly I was the only Native American and almost only woman in all of my science classes.

At first I didn't realize how different I felt. I thought maybe it was just because I was quiet or shy. Later on, I understood that the differences between my classmates and me were cultural. I particularly noticed these cultural differences when I became a graduate student at the University of Texas at Austin, and then

a professor. (<http://www.utexas.edu/>) I saw that many people think they have to promote themselves constantly in order to further their careers. This kind of self-promotion was not part of my culture, and I wanted to rely on my performance in science and teaching to advance my career – not bragging. But in the culture of science, people can often assume if you are quiet that you have no accomplishments! Despite the pressure to conform, I remained true to myself and my cultural heritage. Through this experience I learned that I can only do what I feel comfortable with and hope that people will see my intelligence and good qualities through my actions not my words. I learned that the most important thing about pursuing my dreams is that I feel good about myself, do what I feel is right, and behave with dignity.

Even though I am still the only Native American and one of three women in my department, I have found that I am not the “only one” in the world of science. I am working on creating a network of minority scientists across the country, encouraging universities to hire more scientists of color, and educating minority students on how to choose a school that will best support them. It is my goal that future minority women scientists will not have to turn to history books to find a role model - instead they will find role models all around them.