

The Adventures of Meg A. Mole, Future Chemist



Dr. Tova Williams

In honor of this year's National Chemistry Week theme, *"Fabulous Fibers: The Chemistry of Fabrics,"* I traveled to Raleigh, North Carolina to meet Dr. Tova Williams.

Dr. Williams is an Assistant Research Professor in Textile Engineering, Chemistry and Science at North Carolina State University. She told me, "I'm passionate about advancing science within the area of dye/color chemistry. I design and develop environmentally-friendly dyes and dyeing processes using a variety of tools, including algae and fungus as sources of bio-color." In addition, she explained that she enjoys "teaching and communicating technical concepts to diverse audiences and inspiring the next generation of scientists." I could not wait to learn more about her work with dyes and colors!

So where does Dr. Williams work? "I do most of my work in a laboratory (and with chemicals), but I also often work with a computer to plan experiments and help me design



Personal Profile

Favorite color? Magenta

Favorite pastime/hobby? One thing I really like to do for fun is design interior spaces (Fun fact: I also considered being an interior designer when I grew up)!

dyes I want to create," she said. I really was excited to see the many colors of dyes she works with, and the amazing things she's able to create using them. She explained further, "I create dyes for different fibers such as textile and hair fibers, and I find ways to make the dyes less toxic." Not only are the colors beautiful, but she also understands how important it is for them to be safer for everyone.

Growing up, Dr. Williams' favorite subjects were Chemistry, Geometry, Calculus, and World History. "I was definitely interested in science when I was growing up," she recalled, "and my interests changed many times. At one point I actually wanted to be a marine biologist! I decided to be a chemist instead, because I fell in love with the science after taking my first class and later found out I could be a dye/color chemist and create less toxic hair dyes." She also got to participate in summer camps and do fun experiments.

I asked Dr. Williams what she liked the most about her job. "Every day is different," she shared, "and I get to not only shape science, but also the next generation of scientists, my community, and the world."

Take a look at all of the wonderful fabrics you see around you. From clothes, to curtains, and even towels, the excitement of chemistry helps chemists like Dr. Williams create many different colors to make fabrics beautiful. These chemists continue to look for ways to make fabric dyes even safer!