



HOLDREGE PUBLIC SCHOOLS FOUNDATION

Giving Back to Education

HHS Alumni Recognition Feature!

Dear HHS Alumni and HPS Foundation Supporters,

Holdrege High School is fortunate to have many very successful graduates. We are excited to continue sharing the stories of some of those HHS Alums thanks to the journalistic talents of Kristine (Long) Jacobson, Class of 1990.

We also welcome your suggestions and comments.

Join us in our mission to enhance educational programs and give back to the students of HPS. Your investment is guaranteed dividends! You can donate now through the Give2Grow Phelps County Match Day. Walk-in donations will also be accepted at the Phelps County Community Foundation office from 8:00am-7:00pm on November 17th.

[Click here to go to the HPS Foundation's Give2Grow web link.](#)



Sincerely,

*Teresa Kroll, Chairman
HPS Foundation Committee*

Toni (Kroll) Bartling - Class of 1996

Toni (Kroll) Bartling's Passion for Science Leads to Career in Genetics

By Kristine Jacobson

An advanced biology class at Holdrege High School first sparked an interest that eventually ignited a career in genetics for 1996 graduate Toni (Kroll) Bartling.

Toni earned a Ph.D. in genetics and has studied improvements in cystic fibrosis treatments and gene regulation in cancer and now works as a research scientist for Eurofins Biodiagnostics, where she develops genetic tests for the agriculture industry.

"Taking advanced biology in high school was my first introduction to

genetics, and I found it very interesting," Toni said.

She enjoyed her math and sciences classes the most at HHS. "Mr. Brestel, Mr. Lum, and Mr. Van Eperen were great teachers who really influenced my decision to pursue a career in science," she said.

In high school, Toni also enjoyed playing clarinet in the concert band and said being a member of the marching band color guard and winter guard are some of her best memories.

She studied biological sciences at the University of Nebraska-Lincoln after high school and continued to enjoy color guard as a member of the Cornhusker Marching Band Flag Line. "I credit the great band program at HHS for helping me achieve that amazing experience," she said.

While at UNL, she worked in a molecular biology lab studying fruit fly genetics, and that experience further cemented her career choice. "I believe that getting hands-on experience in the lab early on in my education was a big key to succeeding in my graduate studies," Toni said. "I found that I really loved the problem solving, experimental design, and hands-on aspect of working in a lab."

After finishing her bachelor's degree, she stayed at UNL to complete a master's degree in biological sciences. She moved to Ohio in 2002 with her husband, Brandon, and continued her education further in the genetics Ph.D. program at Case Western Reserve University Medical School.

Toni completed her Ph.D. and then did a post-doctoral fellowship at the Cleveland Clinic, where she began researching gene regulation in cancer. She continued her cancer research as a research scientist at the College of Nanoscale Science and Engineering in Albany, NY.

She was then and continues today to be amazed and fascinated about how DNA and protein function in curating the genetic blueprint of life. She found her research most motivating and fulfilling when she could apply that fundamental knowledge to answer questions that could improve human health. "This affected my choice of Ph.D. dissertation topic (cystic fibrosis) and my other academic research (cancer)," she said. "It is encouraging to see that the work I published out of my Ph.D. thesis about alterations in histone acetylation in cystic fibrosis has been built upon by other research in the field. It is my hope that someday this knowledge will be useful in developing new treatments."

After she completed her education, Toni accepted a contract position with General Electric's Global Research Center outside of Albany and worked on the development of hand-held diagnostic devices for infectious diseases. The devices, similar to an over-the-counter pregnancy test, could be used to detect tuberculosis and methicillin-resistant staphylococcus aureus (MRSA) infections from a skin or



Toni (Kroll) Bartling and husband Brandon

throat swab. The device would give test results in 30 minutes and would be beneficial in low-resource settings where traditional diagnostic equipment is not available. When Toni left GE, the product was still under development with the hope of it becoming commercialized. "Working at GE was an amazing experience," Toni said. "It was invigorating to work in a fast-paced industry on cutting edge technology."

After some time in the eastern United States, Toni and her husband decided to return to the Midwest to be closer to family. She now works at Eurofins Biodiagnostics in River Falls, Wis., where she develops genetic tests for the agriculture industry. The company serves major agribusiness companies as well as small growers and breeders. Toni's main responsibility is to develop custom DNA-based tests for agribusiness companies that are producing or breeding unique genetic traits in plants.

A typical week at her job involves consulting with agribusiness customers to determine their genetic testing needs, designing new DNA tests to detect or quantify a particular genetic trait, and working in the lab to then validate the new



Toni (Kroll) Bartling and son Evan

testing methods. "While there are differences between human and plant genetics, most of the fundamentals are the same," Toni said. "I have found that for myself, job satisfaction is not based as much on the physical subject I am working on, but the actual job activities. I really enjoy problem solving and developing novel solutions, so my favorite part of my job is the challenge of designing new testing methods."

When Toni is not working, she and Brandon enjoy spending time with their son, Evan, who is 5, in the great outdoors kayaking and exploring state parks.

She is grateful for her early years in Holdrege and her time at Holdrege Public Schools. "First and foremost, my parents gave me a great foundation for success and have always been very supportive," Toni said. "The great

education I received in the Holdrege Public schools really prepared me well to succeed in college."

She also said that hands-on lab experience early in her education and solid character values also have helped her succeed in her career. "Like with most things just hard work, persistence, and making the most out of the opportunities that present themselves have helped," she said.

About Us

The mission of the HPS Foundation is to support and enhance the educational efforts of students and teachers of Holdrege Public Schools by providing funding for innovative and challenging programs, learning experiences, and activities.

Holdrege Public Schools Foundation

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