



**DR. SARAH JUNG '04**

## MAKING STRIDES IN SCIENCE— FROM BULLIS TO THE MAYO CLINIC

Sarah Jung '04, Ph.D. is fascinated by the study of disease. As a scientist, she wants to know why and how diseases and conditions can cause such harm, and determine new ways to prevent disease and improve human health. Sarah's education—an undergraduate degree in chemistry, a master's degree in biology and a Ph.D. in microbiology—has helped her to forge a path toward discovering answers.

As a Bullis student for nine years, Sarah always loved math and numbers and credits former

mathematics teacher Mr. Victor Dvorsky with encouraging her interest. In Upper School, Sarah applied herself to her science courses. "Dr. Melissa (Ravenscroft) Chang introduced me to science in a way that was organized and incorporated math and everyday applications of chemistry and life." For a student as precise and methodical as Sarah, it was a natural fit.

Sarah attended the University of Maryland intending to study medicine, but opted for science because, just as at Bullis, she felt

very drawn to science courses—chemistry in particular. After graduating in 2008 with a Bachelor's degree in chemistry, she worked as a chemist at a small biotech company in Columbia, Maryland, conducting research to gain a better understanding of the individual components of the various samples being studied. Wanting to further her education to focus on more research-based lab work, Sarah applied to graduate school. During her graduate program at American University, she had unique opportunities to conduct research at the National

Institutes of Health in Bethesda, attending lab meetings and gaining more exposure to laboratory research settings. Her own research focused on skin cancer as she tested the responses of primary cells in various body systems. Thriving in the laboratory atmosphere, Sarah sought a more in-depth look at infectious diseases. Following her graduation from American in 2012, she began a Ph.D. program in microbiology at Tufts University.

While her program began with different rotations focusing

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on various lab diseases, she soon specialized in the study of cholera—a harmful bacterium and major public health concern, particularly in countries with water contamination. Her extensive research examined how cholera affects humans by observing how the bacterium communicates with itself. The *Tufts Medical Center Newsletter*, summer 2015 issue, stated that “Sarah’s research provides new insights into how bacterial pathogens integrate multiple sensory signals to elicit robust and coordinated quorum-sensing responses.” Sarah graduated from Tufts in May.

This summer, Sarah is poised to begin a two-year clinical microbiology fellowship at the prestigious Mayo Clinic in Minnesota, where she will train to become a lab director and work directly with patients who have infectious diseases. As she prepares to embark on this venture, Sarah reflects on her educational experiences thus far and says that “having really good, strong mentors with each phase has helped guide me. People who have encouraged me and offered different paths when necessary have opened my eyes and given me a broader perspective.”

She encourages Bullis students to study what they love and what most interests them, while staying open to trying new

things, especially in fields they might not otherwise consider. Sarah fondly remembers an art history class at Bullis with Mr. John Sandoval—something outside her wheelhouse of science and math—which ended up becoming just as important to her as her core classes. She learned to appreciate and understand art and the organized thought processes behind it. To this day, “whenever I visit a large city, I try to visit museums. I appreciated being able to expand my horizons outside of just what was of interest to me.”

Sarah enjoys being active outdoors and following her graduation from Tufts, she hiked the Bavarian Alps during an exciting trip to Germany. “That experience was such a thrill, from the breathtaking sights to the challenging physical aspect, and certainly a trip I will always remember,” she says. In addition, Sarah has volunteered at the Boston Marathon for the past three years, an activity special for her that she will miss with her move to Minnesota.

“Bullis has incredible teachers and leaders. My time at the School served as the beginning of a long academic journey, and I will always recognize that part of my education as inspiring and imperative to helping me achieve my goals. For this and so much more, I am truly grateful.”



**Opposite page, left:** Sarah presenting her thesis at the culmination of her Ph.D. program at Tufts University in May; at right, a recent headshot.

**Top left:** Sarah’s senior portrait in the 2004 edition of *Roll Call*.

**Top right:** Sarah and her boyfriend Pete Meintjes on their hike in the Bavarian Alps.

**Above:** Sarah is joined by her proud parents, former Bullis Headmaster Dr. Richard Jung and Dr. Jan Anderson as well as her Tufts adviser Wai-Leung Ng, following her thesis presentation.