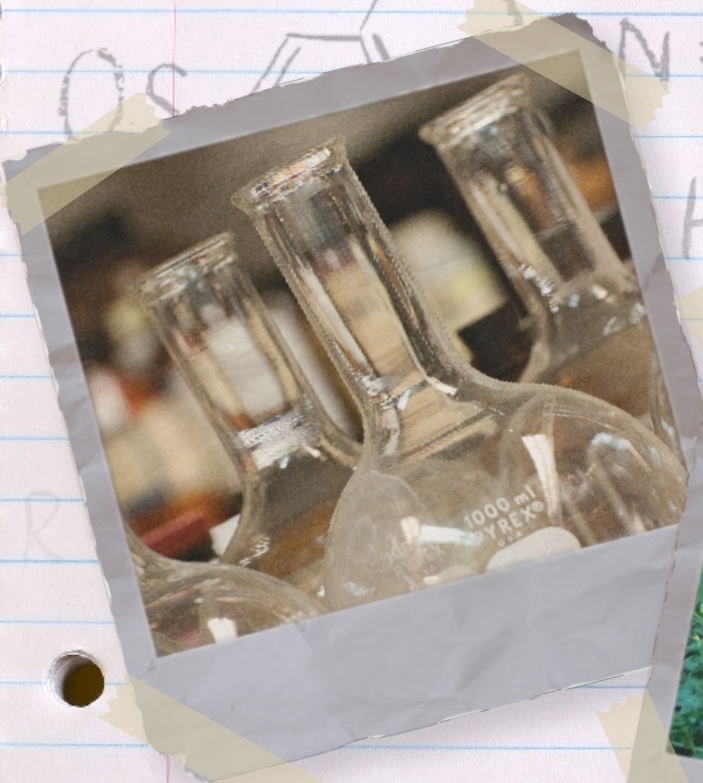




KEISHA BATES '11



Striving  
to be  
Extraordinary

by Matt Thomas '00



When alumna Keisha Bates '11 made a visit to Gustavus Adolphus College as a high school senior, she remembers her admission counselor telling her that “Gustavus is a safe place to do extraordinary things.” That statement resonated with Bates during her four years on the Hill, and sticks with her today as she is in the early stages of her professional career at one of the top research universities in the world.

As a biology major, Bates spent plenty of time in various laboratories honing her research skills, but at Gustavus she also was able to explore an interest in dance, promote healthy lifestyle choices as a Peer Assistant, and study abroad in Costa Rica.

“I was able to develop myself as a truly whole person, and in every tiny step, Gustavus supported me,” Bates says. “I was able to pursue dancing, a passion I never had the opportunity to explore until college; dig deep into my personal faith and belief system; challenge my opinions on politics, social justice, and the world; push myself out of my safe comfort zone known as Minnesota; grow socially by leaps and bounds; and the list could go on.”

Bates says that she cannot shower the biology and chemistry departments at Gustavus with enough words of gratitude and appreciation for encouraging her to seek academic excellence. She says the two departments prepared her for her career by helping her find a balance between technical knowledge, critical thinking, and social intelligence.

“Data is useless unless you are able to translate it into words. Research is enhanced when done in collaboration with other minds. Science is nothing unless shared with others.

To truly succeed in the world, especially in the scientific world, one must be able to translate what is on the bench to the general public, create a community of collaboration and camaraderie, and think in interdisciplinary ways,” says Bates. “The Gustavus biology and chemistry departments helped me learn how to actually apply what I learned to the real world, and not just the world of science. They helped me develop into a scientist that knows more and does more than science, a trait that has set me apart from other job-seekers and many other people in these fields.”

Bates conducted many small research projects through the laboratory curriculum of the biology and chemistry departments as well as through her study-abroad program in Costa Rica. She investigated the acute thermostability of the enzyme fumarase c, researched the role of light intensity as a cue for cricket behavior, and studied a



novel plant-animal interaction in the Costa Rican rainforest.

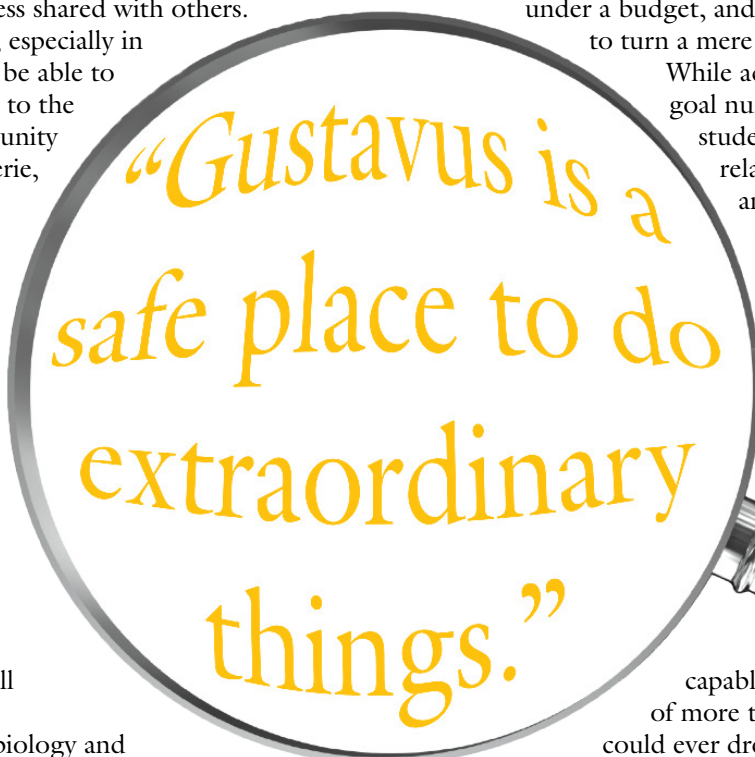
“What I am realizing now is the fact that my professors required me to develop and implement most of my research projects from start to finish rather than just perform bits and pieces of one, and that was extremely beneficial to my future,” Bates says. “I learned not just how to do the science, but to develop an idea while considering the scientific, political, moral, and financial implications. I learned how to relate to people why my data matters and why they should care about it, how to work under a budget, and how to justify that budget, and how to turn a mere curiosity into great science.”

While acquiring knowledge is certainly goal number one for any undergraduate student, alumni of Gustavus know that the relationships they develop with professors and other mentors are just as valuable and a unique reward of the liberal arts experience.

“While at Gustavus I had many mentors within biology and chemistry as well as outside of my area of study and even outside of the academic program,” Bates says, “Pamela Kittelson (biology), with her gentle yet strong words; Alisa Rosenthal (political science), who always made me feel

capable of more than I could ever dream of;

Cindy Johnson (biology), with her contagious passion and optimism; Kirk Carlson (financial aid), who was the first person to make me feel valued at Gustavus; Brenda Kelly (chemistry), who is most



definitely Superwoman; and Judy Douglas (drug and alcohol education), who never ceases to amaze me with how deeply she can touch people's lives."

Most Gustavus alumni can rattle off a similar list of mentors who influenced them during their four years, but many will name one individual who they feel changed their life. That person for Bates was biology instructor Kiki Harbitz.

"In regard to science, she re-opened in me the childish curiosity about how the world works. She helped me out of my "I need to get a good grade" mentality and taught me how fun science really is, how science doesn't have to be stuffy or dry, and how delicate and beautiful nature is," says Bates. "How she influenced me the most, however, was in the way she had an honest and listening ear, showed how much she cared for me as a scientist and as a growing young woman, and led by example in the way she lived her life with such incredible balance and love for others. To this day, she is a mentor and a friend, and has influenced my life in a way in which I could never repay."

Today, Bates is living in Baltimore and working as a research technician at the Johns Hopkins University School of Medicine. Bates works in a neuroscience research lab that focuses on synaptic plasticity. Many of the students and post-docs who work in the lab need mice with specific genes or genetic mutations to perform behavioral experiments on, or to use their brains to culture neurons for their experiments. Bates's role is to breed more than 700 mice and 40 different genetic lines for the researchers to use. She takes tissue samples, performs DNA extraction, polymerase chain reaction, and gel electrophoresis, analyzes DNA, and mates the mice so that researchers have the appropriate mice for their experiments.

"I think I am passionate about this work because we know so little about the human brain, and the more we learn, the more we can help develop treatments for people with memory and learning issues such as Alzheimer's disease and autism," Bates says.

Bates knows that she will not be poking and prodding mice for the rest of her life, but she views it as a valuable experience that

will likely lead her to her next journey in the wonderful world of science.

"As to where this job leads, I am still trying to figure that out myself," Bates says. "All I know is that I hope it leads to something where I can make a deep and positive impact on the lives of others."

Spoken like a true Gustie.

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*Matt Thomas is the director of media relations and internal communication at Gustavus Adolphus College. After graduating from Gustavus in 2000 with degrees in communication studies and history, Thomas worked as a sports journalist in the western suburbs of Minneapolis before returning to Gustavus in 2007.*

*Design and layout by Anna Franke '16*

