Daniel Stoltz BS '13 Interview conducted by email Spring 2021

Why Did You Choose the Biology Major Program? 1-2 min

I chose the biology major program because I was searching for a major that would simultaneously allow me to fulfill all of my pre-med course requirements and offer a wide breadth of classes to round out my education at UW-Madison. Some of the other majors I looked at seemed too restrictive and narrowly focused with their class offerings, whereas the Biology Major Program offered opportunities to take a wide variety of classes in cellular biology, organismal biology, ecology, and evolution/systematics.

What Were Your Favorite Classes? Were there any specific Biology classes you loved?

Due to my interest in human medicine, the various organismal biology classes I took were my favorite. Human anatomy and human physiology were especially intriguing. It was my first time getting the opportunity to dissect a human body and learn about the complex yet elegant mechanisms that allow the human body to perform its daily routine functions. The content of these courses confirmed that medicine was a career path that I wanted to continue to pursue.

How did you get to know the biology faculty and instructors? Who was your favorite faculty member?

I found that the most effective way to get to know my professors and instructors was to attend their office hours as often as possible. Interacting with my professors in a smaller setting, especially in larger classes, made it much easier to ask questions or seek advice. My favorite faculty member was Kevin Strang, who taught my Physiology 335 course. The following semester I volunteered as a peer-led team leader for the course. I attended weekly leader meetings led by Dr. Strang where we discussed teaching techniques, small group communication skills, and various learning styles. I also held weekly study sessions with 6-8 Physiology students, fostering an environment of active learning in a small group setting by asking questions and generating discussion. I became even more involved in this tutoring program the following semester by volunteering to coordinate the entire peer-led team program for the Physiology 335 course. This involved recruiting and training new tutoring leaders, matching them with students, and creating an interactive website with resources and questions for tutoring leaders to utilize. Throughout this process, I worked closely with Dr. Strang, who I found to be particularly good-natured, humorous, and eager to share his vast knowledge of human physiology. I was thrilled to include his letter of recommendation in my application for medical school.

Were you involved in any student organizations, clubs or research? If so, do you have a favorite memory or accomplishment?

For four years, I worked as a research assistant at the University of Wisconsin Hospital within the Department of Pediatrics. The specific laboratory I worked in was called the Childhood Origins of ASThma (COAST) laboratory, which is a prospective birth cohort study designed to examine the interactions among age and immune system development with respect to the subsequent development of asthma and allergic diseases. Working in the COAST laboratory was one of my most meaningful undergraduate experiences because it allowed me to develop my interest in academic medicine. I was able to get involved in research projects that centered around an area of medicine that I was interested in. By conducting my own research, I developed an inquisitive nature, and learned how to ask important research questions, and conduct rigorous experiments to answer them. I went through the process of writing my first manuscript and submitting it to a peer-reviewed medical journal, which taught me how to write at a scientific level acceptable within the professional research community. That first manuscript has now been cited over 100 times in the scientific literature, which is firsthand proof that undergraduates can make meaningful contributions to academic medicine.

How did the Biology Major prepare you for your career path?

The Biology Major provided numerous opportunities to take classes in fundamental areas essential to my interest in pursuing a career in medicine. This allowed me to immerse myself in the actual material, concepts, and problems presented in these courses to see if they were compatible with a career path in medicine. Not only did the Biology Major help confirm that I was actually interested in this type of biological science, but it provided a strong foundational knowledge that I could apply as a medical student after graduating from UW-Madison.

How would you describe your current role as a resident physician? And what is something you enjoy most about it?

Resident physicians are doctors who have completed medical school and are receiving training at accredited programs in a specific specialty. I am currently training at the General Surgery residency program at Stanford University, which is a seven-year training program. During this period of clinical training, we care for surgical patients under the guidance of an attending surgeon. Residents are always supervised as we develop our surgical knowledge, care, and technical skills, and we are allowed to do more as we gain experience through training. During this process, we receive intense training in General Surgery, Trauma/Surgical Critical Care, Surgical Oncology, Endocrine Surgery, Advanced Minimally Invasive Surgery, Bariatric Surgery, Vascular Surgery, Transplantation, Colorectal Surgery, and Pediatric Surgery. By the completion of the training program, residents will perform more than 1,000 operations and are well qualified to join an academic faculty in Surgery, enter the practice of General Surgery, or pursue a fellowship for further sub-specialty surgical training.

The aspect I enjoy most about General Surgery residency is that it demands a consistent and unique blend of sharp clinical knowledge, empathy, interpersonal skills, and technical savvy. Operating on another human being requires an incredible amount of trust between the patient and their surgeon, and often times this occurs in the setting of patients being at in their most vulnerable state. I find it incredibly rewarding to constantly strive to earn and keep that trust, and to help guide patients through what may be some of the most difficult, scary, and challenging days of their lives.

How does the residency program help you discover your interests in the medical profession?

Our General Surgery training program provides opportunities to integrate basic and applied research into our clinical training program in preparation for a career in academic surgery. To facilitate this, as residents we spend two years in a period of intense research. Our residents have opportunities to conduct an impressively wide variety of research – some examples include basic/translational science, clinical outcomes, health care policy, bioengineering, and global surgery. In addition to conducting research, many residents also pursue additional advanced degrees in epidemiology, bioinformatics, health policy, or public health. I am thankful to be training at a program that prioritizes and supports our trainees' interests, whatever they may be within the surgical profession.

What Advice Do You Have For Alumni and/or Current Biology Majors?

I think my number one piece of advice is to be active, not passive in whatever interests or drives you. A world-class university like UW-Madison can offer endless opportunities to its students, but individuals need to actively take advantage of them in order to get the most benefit. Don't be hesitant to visit your professors in office hours, cold email a researcher in a laboratory you are interested in joining, or volunteer for an organization you are curious to learn more about. By being purposefully active, you will find that you meet crucial people and have influential experiences that can shape and mold your future career path in ways that you could have never imagined.