Biomed Student Cultivates Novel Life

By: Desiré Bennett

Cameron Ingram is the UC College of Engineering and Applied Science Engineer of the Month for October. Cameron maintains a 3.94 GPA in his senior year in the Biomedical Engineering program while also minoring in Medical Science in the UC College of Medicine.

Cameron says he chose UC for a number of reasons. “I decided that the University of Cincinnati was the right school for me because UC is a strong research institution,” he said. “But particularly for my chosen area of Biomedical Engineering.” He says that the concentration of area hospitals near UC’s campus, such as Christ Hospital, UC Medical Center, and Cincinnati Children’s is astounding and creates the perfect opportunity for co-op experiences for biomedical students.

Like many other students in the College of Engineering and Applied Science, Cameron says that it was UC’s strong co-op program that sealed the deal for him. “Co-op was one of the deciding factors for me to come to UC. The opportunity to integrate real work experience into my undergraduate curriculum as seamlessly as it is done at UC is an unparalleled experience,” he said. “And looking back on it now, as a fifth year senior, I was certainly right!”

During those past five years Cameron has cultivated his dreams of one day becoming a doctor via the biomedical engineering program. “I decided long ago that I wanted to be a physician, but a major in biology or any other subject just wasn’t going to fit the bill for me,” he explained. “I knew that to gain the best experience I could as an undergraduate, I wanted to push myself beyond the most typical bachelor degree choices of medical students and use it to make me a better doctor. I believed that keeping a strong tool belt of math and science would make me a better doctor, especially if I spent my undergraduate years working on problems in biomedical science.”

Cameron says that being a biomedical engineering major affords him the opportunity to solve problems that doctors are trying to solve. “For example, when a child comes in to see his doctor because he has diabetes, I know that biomedical engineers are working on all aspects of improving his quality of life,” he explained. “We are developing the new therapies of tomorrow to treat the source of his diabetes, by regenerating new pancreas for transplantation, and we are
developing new methods of delivering the best therapies we have today by designing novel insulin pumps.”

He is currently working on his senior capstone project in the Division of Developmental Biology at Cincinnati Children's Hospital Medical Center (CCHMC). “I am working in the lab of Dr. Jim Wells, trying to understand how we can create functional pancreatic tissue from stem cells for transplantation therapy in patients suffering from diabetes.”

In addition to his capstone project, Cameron has completed co-op work in the Department of Molecular Cardiovascular Biology in the Heart Institute at CCHMC. “I worked as part of a lab team to discover how heart valve disease develops. Using heart valve cells we obtained from pigs, I integrated traditional drug testing approaches with biomechanical testing to learn about how the mechanics of heart valve function may contribute to disease.”

He has also co-oped at Ethicon Endo-Surgery, a Johnson & Johnson company headquartered in Blue Ash, Ohio, working as a Regulatory Affairs co-op student and at the BJC Institute of Health at Washington University School of Medicine in St. Louis. “While I was there I tried to figure out what causes a rare form of congenital heart disease with a cardiothoracic surgeon at St. Louis Children’s Hospital.”

Cameron is as a volunteer in a clinical internship program at Crossroad Health Center located in Over-the-Rhine in downtown Cincinnati. He currently serves as the Director of Quality Improvement for the program. “I am responsible for identifying what needs should be addressed in the program, how we can better serve the health center, particularly the health care team, and what possible ways we can address them,” he said. “I love working there, gaining interaction with patients, doctors, medical assistants, and nurses. I am able to see first-hand what health care technology is doing for a primary care team and I get to find and address other needs at the level of delivering care to the people that need it.”

He is also the former president of the Biomedical Engineering
Society at UC and a recipient of the Choose Ohio First Scholarship Program within CEAS. The scholarship is part of the National Science Foundation’s STEM Talent Expansion Program. “We dedicate time to encouraging young students to get excited about a STEM-related discipline. I love getting to work with young students on fun math and science projects through things like UC’s Engineer for a Day and the Summer Engineering Institute,” he said. “As a recipient of the Choose Ohio First Scholarship, I am lucky enough to spend hours talking about science and performing experiments with elementary and high school students.”

When asked what advice he would like to lend to fellow students he said, “Discover what you are passionate about and make it a part of everything you do and try to get some academic research experience – it will set you apart from the crowd, no matter what your plans are after you graduate.”

Cameron is excited about his future plans. “I am getting married to the best person in the world and I am looking forward to going to medical school.” His wedding is slated for June 8 and he has been accepted into the University of Cincinnati medical school. His classes begin in August 2014.