



IVAN SIMPSON-KENT

FULBRIGHT ACADEMIC AWARD TO GERMANY

The search to better understand ourselves – our minds, how we age, our fertility – may be found in something as tiny as an ant. For Ivan Simpson-Kent, ants are far more significant and important than we often give them credit.

“Ants as a collective behave similarly to the human mind and there have already been people who have tried to link ants to the behavior of individual neurons in the brain,” sad Simpson-Kent. Ants and neurons “are able to make very complex decisions as a collective, and together they can accomplish a lot.”

This premise is just one of several scientific research interests Simpson-Kent will pursue at the University of Regensburg in Germany after being awarded a Fulbright to conduct research there.

At Regensburg, Simpson-Kent will examine longevity and fecundity (fruitfulness-fertility) in a particular ant species, *Cardiocondyla obscurior*. One objective of the project is to better understand the underlying mechanism of aging and fertility in ants and relate that research to similar processes in humans, which may provide a clearer answer to some of the most perplexing questions in evolutionary biology.

This research will be overseen by Dr. Jürgen Heinze, chair of zoology and evolutionary biology at Regensburg, whose research has appeared in several esteemed science journals.

Simpson-Kent, who is from Philadelphia, will graduate from Scranton in May with a double major in neuroscience and philosophy, a minor in mathematics, and as a participant in two of the University’s programs of excellence: the Special Jesuit Liberal Arts Honors Program; and the undergraduate Honors Program.

Simpson-Kent cultivated his interest in scientific research during a summer research program in 2014 at The University of Missouri. There, he had the opportunity to study how human blood pressure and heart rate is regulated, as well as the brain’s role in those functions of the body. That was his first experience understanding what it’s like to be a research scientist.

Simpson-Kent took another big leap into the field during a summer research scholarship in 2015 at the Massachusetts Institute of Technology. At MIT, he conducted research in social cognitive neuroscience, particularly research on individuals with autism spectrum disorders.

During his time at Scranton, Simpson-Kent served as president of the Phi Sigma Tau, the international honor society in philosophy, and vice president of the Debate Society. He was also a member of Alpha Lambda Delta,

the national freshman honor society, and Beta Beta Beta, the national biological honor society. He presented his research at several academic conferences and meetings, including the Lehigh Valley Ecology and Evolution Society and at the 29th annual Student Mathematics Conference. As part of the Scranton Mentors Actively Reaching Teens (S.M.A.R.T.) program, he served as a mentor to area teens.

Soon after Simpson-Kent familiarizes himself with German culture and language, he intends to volunteer his time mentoring troubled teens and discussing science, philosophy and religion with his peers.

After his Fulbright, Simpson-Kent will pursue a Ph.D. in cognitive science and would like to teach entomology and neuroscience at a university. He wants to conduct research that explores the intersection of the human mind and artificial intelligence.

“I think artificial intelligence is a good thing,” he said. “I think trying to figure out how the mind works and how we can emulate it in computers, intellectually, will also help with a lot of problems in humankind.”