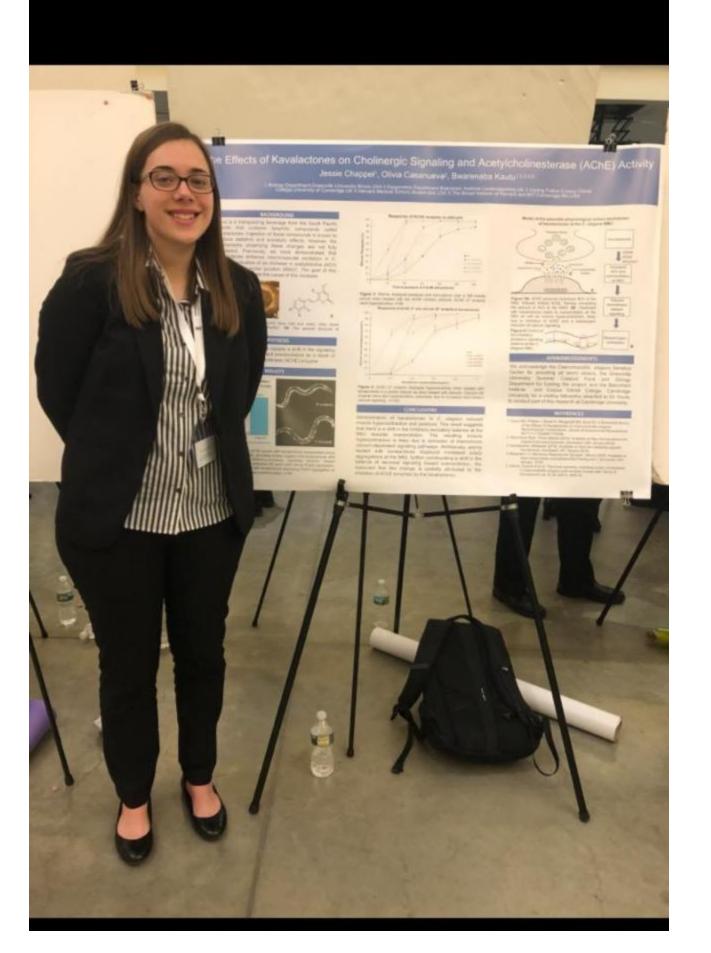


Going Ivy League: Edwardsville Grad Accepts Summer Internship at Princeton

by Cory Davenport, Contributing Writer April 24 2019 4:15 PM



GREENVILLE – An Edwardsville High School graduate is going Ivy League this summer following a research project during her second year at Greenville University.

Jessie Chappel joined the summer research program at the private university nearly two years ago during the summer following her freshman year. The research program involved studying the physiological effects of a plant called kava, which has been historically popular crushed into a powder and added to drinks in areas of the South Pacific and is increasing in popularity throughout North America and Europe. Consumers of kava note they feel less anxious, adding the plant-based substance causes a sleepy and somewhat pain-relieving effect, and the program Chappel joined at Greenville wanted to discover why.

Chappel and her fellow researchers studied the effects of kava on microscopic worms. Prior to Chappel arriving at Greenville University, she said researchers in the program discovered a connection possibly linked to the neurotransmitter, acetylcholine, which aids in both memory and movement.

When Chappel came to the program, she and her comrades were tasked with discovering why that increase occurred in the first place.

"We wanted to find out why it is happening," she said. "It has to do with acetylcholinesterase, an enzyme, which breaks down acetylcholine molecules. It destroys them. The effect is from blocking the action of that enzyme."

Following that study, she co-authored a paper and gave a presentation at the prestigious Harvard University regarding the findings.

When it came time to decide how she would be spending her next summer, Chappel said she desired a change of scenery from Greenville and applied at various universities across the country. The first of these places to have responded to her application was Princeton University, another Ivy League titan.

"I knew this summer, I wanted to go somewhere out of Greenville because I've spent my last two summers here," she said. "My advisor on my research studies went to a

different school, so I thought it was time I moved on too. It was free to apply, so I applied to all the places I wanted to go, knowing I'd still have a base if I didn't get any of them. Princeton was the first to respond."

At Princeton this summer, Chappel will be working in the school's Department of Molecular and Computation and Quantitative Biology.

Originally, Chappel said she knew she wanted to study something in the medical field – as she is currently working on a dual major of biology and chemistry at Greenville, but did not know until she started her secondary education just how much she loved the intricacies of science.

"I didn't know how interested I would be in the nitty-gritty details until I started doing research here at the college," she said. Before then, I had more of an overall general interest.

After she finishes her studies at Greenville, Chappel said she wants to continue in graduate school, and will most likely pursue a Ph.D. and continue working on scientific research. As of now, she said she is debating which path of science she wants to take, as her interests and research crosses biology, chemistry and, with the addition of the kava study, neurology – all of which she finds interesting and excels at doing.