

NNANYA KALU

Hometown: Nsukka, Nigeria

Program: Doctoral candidate in cellular and microbial biology

As the son of two academics at the University of Nigeria, doctoral student Nnanya Kalu was raised with an appreciation for research. Maybe that is why five years ago Kalu, now 35, left his home country to pursue a doctorate in biology at Catholic University. Having previously worked as a medical doctor in neuropsychiatry, he now studies alongside Assistant Professor Ekaterina Nestorovich to research diseases like anthrax on a cellular level. He said he came to Catholic University because “the research being done here speaks for itself.”

“I’ve always wanted to come to the U.S. because of the quality of research that goes on in the institutions of higher learning,” Kalu said. “We do research back in Nigeria, but you can’t compare the both of them.”

Kalu’s research examines how lipids (fats), as well as the acid concentration of the cell, affect the cellular entry of the anthrax toxin. He is particularly interested in understanding the behavior of the pore or “ion channel” the toxin forms on a cell membrane to enable it to enter the cell. Applications of his findings could include treating cancer cells or people affected by a bioterrorism attack.

“Just like every other field of research, you can never exhaust the possibilities,” he said. “The more you answer questions, you raise more questions.”

In spring 2016, Kalu’s poster on his research took the top prize for graduate students at the University’s Research Day. Last fall, Kalu published his third paper and his first as a primary author. He hopes to defend his dissertation this semester.

Kalu maintains strong ties to his native culture through a local network of Nigerian expats and draws inspiration from his country’s rich literary heritage. In addition to biology, he said, he has a deep fondness for poetry.

“Science is no different from art,” he said. “It’s just two different ways of looking at the same thing.”

Kalu said he also appreciates where he has landed, at a university that encourages both faith and reason.

“Some people think that you can’t have faith and be logical at the same time,” he said. “Catholic University provides that nesting ground to grow in both areas of your faith and in understanding the reason behind how things work.”