Carlson's progression in understanding Alzheimer's

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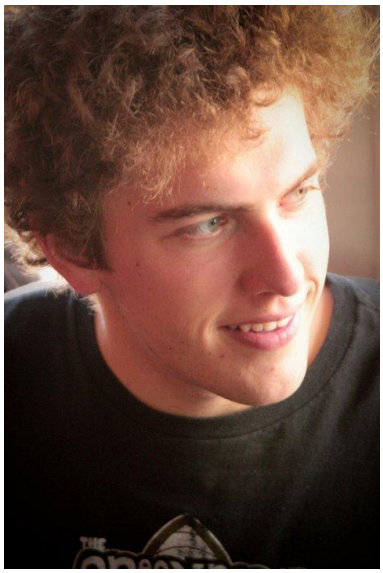

Researcher Background

Michael "Cubby" Carlson, an undergraduate senior majoring in Biochemistry and minoring in Music recording, is used to juggling several actions concurrently. So when Michael's friend knew of an available undergraduate research position, Michael jumped at the opportunity.

Carlson has been working diligently in Professor Nicos A. Petasis' Organic Chemistry Lab located in the Loker Hydrocarbon Institute.since the end of his freshman year. This lab is dedicated to developing innovative techniques and medicines to treat cancer and Alzheimer's disease. Michael's research primarily focuses on anti-inflammatory medicines, a topic that is simply one of many that his lab investigates.

Effects of Particulate Matter on Alzheimer's

Carlson's past project included examining the synthesis of Neuroprotectin D1, which is closely linked to Alzheimer's. In an effort to continue research on this particular disease, Michael is currently working on a project focused on Omega 3-fatty acid derivative synthesis.

His first project was an environmental study. He specifically designed the study to research the effects of particulate matter on neurodegenerative diseases. In order to do this, his lab uses a machine called electron paramagnetic resonance. The purpose of this is to examine air pollutant samples procured by his collaborators at the Viterbi School of Engineering.

Michael explains that they are working on "tagging graphite and other carbon-

containing compounds like carbon black with fluorescent dyes to examine their movement inside biological assays.. Additionally, Michael uses organic chemistry techniques including column chromatography and thin layer chromatography. The purpose of these techniques is for separation purposes. He stresses the importance of maintaining a safe lab environment during all of his experiments.

Carlson's Findings

As far as results go, Michael is unable to disclose too much information since his lab's findings will be published soon. But he does leave us with a valuable piece of advice. "Just don't raise your future child near a freeway. Trust me," Michael said.

Michael's results from his project substantiate all of the effort and hard work over the past three years. In fact, his work has been significant in two papers that are currently being worked on in the lab.

Carlson's Laboratory Experience and Future Plans

Needless to say, Michael feels lucky to have been working in this lab. "I love the experience I've gained working under so many great graduate students and the amazing relationship I have developed with my boss, Professor Petasis. Also, I have made a lifelong friend in Jeremy Winkler, my first real mentor in lab," Michael said.

Michael recognizes that before he was given responsibility in his lab, he needed to earn the trust of his lab mentors. Once he got to the point where he gained their respect and reliance, Michael was given more to do. Moreover, he could not be happier about all of the research and publication experience he's gained.

As for as the future goes, Michael will be applying to medical schools in the near future in the hopes of becoming a physician. Yet he still hopes to be involved in clinical research.

"I've spent so much time making these different drugs, it would be cool to start administering them to patients and witnessing their potential to save lives," Michael said.