

## Why College Is Important to Me

by Jacob Lombardi

I was stumped. I sat in Salk Pavilion, home of the University of Pittsburgh School of Pharmacy, baffled by the results of the research. For several months during the summer of 2017, I tracked the effects of three medications to understand how the human genome can predict antiplatelet drug performance. The university's medical center recently implemented genetic testing for patients who had heart attacks hoping to minimize people taking the wrong medication based upon their genotype. But one of the medications I studied all summer showed unexpected negative results in patients. Assuming my own error, I consulted my mentor about how to fix the problem in my data analysis of patients' medical records. After running a few tests himself, he could not discover the medicine's negative results either. He then gave me a task: find a reason for this drug's mysteriously poor performance.

The search thrilled me! I was that 5<sup>th</sup> grader all over again doing one of my favorite Quizzle Logic Puzzles – only this time the content was much harder and involved something truly important. I wasn't trying to figure out if Sally brought cake or pie to the party. Instead, the results of my research might actually help a team of doctors and professors know which medication would improve someone's change of survival by 8%.

Near the end of the summer, I concluded my internship by delivering a twenty minute presentation to the research team of graduate students and professors. I loved sharing my findings and was happy to see their sincere interest in what I had discovered. I thought this presentation was the highpoint of my research, but I was wrong. The research became even more significant a month later as I did a shadow study at a local pharmacy; there, I met a client who had taken all three of the medications I researched over the summer. I listened to the patient discuss his health history, his

symptoms, and his side effects from the various medications. This man stood right in front of me – a living, breathing example of my research.

Even though I knew in theory that my research would help people, it still felt slightly impersonal because I analyzed blind data from patients' medical records. But when I met the client at the pharmacy, I understood how my research might one day play a part in advancing human health and improving lives.

College is important to me because it will provide me with the challenging coursework I need to build my educational foundation and knowledge. This small taste of helping others with my knowledge has fueled in me a desire to do and learn more! I cannot wait to work with professors and fellow college students to delve further into research projects like the one I participated in this summer. I know that college will give me the foundation I need to make a change in the world.