My job was to synthesize compounds that would either bind to the zinc active site or sit in the hydrophobic pocket of the Autotaxin enzyme along with bind to a steroid that would sit in the SMB1 domain or hydrophobic tunnel. The goal was to inhibit the enzyme from overexpressing LPA, a phospholipid that often leads to several cancers and idiopathic pulmonary fibrosis.
The most rewarding aspect of my work experience was finding out that one of the compounds I made showed signs of being active. I found out on the last week of my internship which was a perfect way to end such a wonderful experience. I learned basic organic chemistry techniques, discovered that I liked working in an organic chemistry lab on a daily basis, and was able to advance the research project.
This experience has solidified my love for chemistry and chemical research. By taking part in this program, I learned that I do enjoy doing med chem research, however I would like to lead a med chem project of my own before deciding whether or not I would want to do this as a career. I also want to explore different career paths as well before I decide on academic research.
This trip was a trip of firsts for me – my first flight by myself, my first trip to Europe, my first currency exchange, my first visit to a country where English is not the official language, and even my first haggis, fish and chips, Thai, and Japanese dishes. With all these firsts came some major personal development during the 9 weeks I was abroad. During this time, I managed to catch a glimpse of some beautiful cities including Glasgow, Edinburgh, Warsaw, Krakow, London, and Barcelona.
I cannot thank the University of Strathclyde and Princeton University enough. This was such an amazing, once in a lifetime experience and I cannot thank them enough for making it possible. I am so grateful for all of their support and cannot wait to see what is in store for next summer! Thank you so much!