Dear University of Notre Dame URP Sponsor,

I would like to thank you sincerely for the funding of my research at Cold Spring Harbor Laboratory during the summer of 2018. This summer has been an excellent opportunity to advance my skills as a scientist while fully immersing myself in a community which values hard work, academic creativity, and the pursuit of advancing scientific knowledge.

This upcoming school year, I will be entering my senior year at the University of Notre Dame. In May of 2019, I plan to graduate with a Bachelors of Science in Biological Sciences and a minor in Poverty Studies. At the University of Notre Dame, I am involved with Dr. Alex Perkins’ lab, which utilizes quantitative methods to study infectious vector-borne diseases. This summer at Cold Spring Harbor Laboratory I have been able to expand my work in this field through learning about genetic applications within the field of infectious diseases under Dr. David McCandlish.

My work this summer under Dr. McCandlish has exposed me to genetic methods and techniques that I would not have been able to otherwise encounter in my studies at Notre Dame. My project utilizes influenza A hematagglutinin protein sequence data as well as deep mutational scanning data with the goal of identifying patterns of genetic interaction which would allow for immune-escape responses or drug resistance phenotypes. Being able to complete this work will be extremely useful to my professional development, as genetic techniques are becoming increasingly more common in epidemiology work.

In the future, I am hoping to pursue a career in global health policy. I feel that an important aspect of my future career is the ability to understand the models and biological theory that policy decisions are informed by. As I am going into my senior year, I have begun looking at post-graduate opportunities this summer. Dr. McCandlish has been extremely helpful in this pursuit and has consistently been willing to provide support in my professional and academic development as a scientist.

This summer has been transformative in my journey to future career and I thank you for being a part of it!

Best,

Magdalene Walters