## **Dr. Joanne Macdonald**

Molecular logic gates for biodetection provide a large propensity for multiplexing. Our high school student program exploits this opportunity to provide students with the opportunity to build biodetectors to targets of interest, where each project teaches students the basics of diagnostics and molecular phylogeny. Additionally, as they are inspired, students are encouraged to make fundamental improvements to the underlying biodetector technologies. This supplement request is for an additional three summer high school student projects within the genre of this program.