COURSE DESCRIPTION

The primary objective of this course is to experience the operation of authentic scientific research in the field of biochemistry. The main experimental design is focused on biochemical approaches in the overexpression, isolation and functional characterization of specific target proteins: the NBD2 region of CFTR (cystic fibrosis transmembrane conductance regulator) for the 2019 season. The hypothesis driven projects, composed of multiple experiments, are parts of scientific investigations of research labs in the department. This course will teach and reinforce the classical and fundamental biochemical laboratory techniques, the theory behind the techniques, the development of lab protocols, troubleshooting, identifying and closing gaps in protocols, the analysis and interpretation of experimental results, and scientific record keeping. At the end of the course, students should be capable of independently thinking and planning, performing biomedical lab tasks, communicating, and testing scientific ideas.