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Introduction to Cancer Research Cell and Molecular Biology Laboratory

The course I plan to revise into a **CURE- Classroom-Based Undergraduate Research Experience** is the laboratory portion of a sophomore level required course in the Biology major: Bio 335: Cell and Molecular Biology. I have taught this class for over twenty years, which consists of three hours of lecture and three hours of laboratory per week. Approximately twenty six students take this course every Spring. They have previously taken a year of freshman Biology (Bio 101/Bio 102) and Genetics (Bio 327). By this point they have sufficient background knowledge from these classes to be able to appreciate an in-depth inquiry-based investigation using state of the art techniques, equipment and analysis as described below.

This class will multiply by approximately 5 fold the number of Pace Biology students who will be able to participate in cancer research. Although Pace Biology students are required to participate in a capstone course consisting of either research with a faculty member or an outside internship (in medicine or other clinical fields), which usually occurs in junior or senior year, I can only mentor 3-4 students per year on my cancer research projects. Therefore, only a subset of students who wish to participate in cancer research at Pace have the opportunity to do so, and those tend to be the students who benefit from either academic, social or other advantages (for example, students who can afford to do research during the semester or over the summer rather than working a

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