A. Briefly describe overall research program at your laboratory. The overall research program in my laboratory is based on biomedical research to study reproductive biology and toxicology, protein functions in cancer biology, cell-cell and cell-matrix interactions. Currently we are involved in studying molecular mechanism of environmental pollutants.

B. Briefly describe specific project(s) for your teacher: The major focus will be to test if exposure of breast cancer cells to PAHs, tamoxifen and 17-β estradiol will alter cell structure and functions. The purpose of this research is to study the expression of laminin and galectin-3 proteins in human breast cancer cells. We will perform western blot, ELISA and indirect immunofluorescent microscopy. We will examine the role of laminin, and galectin-3 in the maintenance of the transformed and tumorigenic phenotype of MCF-7 cells.

C. Will any other people (post docs, grad students, undergraduate students, colleagues, etc.) be involved directly with your teacher? The teacher would work with me, one undergraduate research student and one research technician.

D. Will you require any advanced reading/preparation for the teacher? If yes, please briefly describe. In advance, the teacher can study books or paper on cell culture techniques. I will be able direct the teacher on reading materials via email contact or web links.