

Developing a Nonradioactive Alternative Pharmacological Research Technique for Assaying Drug-Receptor Interactions

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The specific aim of my project is to develop a nonradioactive research technique for measuring the interactions between drugs and their drug targets. Working with Dr. Patrick Murphy, we will develop, test, and utilize this improved research method that will permanently eliminate the use of radioactive materials in our student faculty collaborative research projects. This will be accomplished by replacing our current radioactive-based assay with a fluorescence polarization (FP)-based drug binding assay. We will then use the new FP-based drug binding assay to test improved protein expression of the glucocorticoid receptor (GR) which is the major drug target of commonly used anti-asthma medications. This new technique will increase research accessibility to Seattle University undergraduates and will be incorporated into the NURS 496 Directed Study hsp90 Research Methods Course