Dr. Natarajan Kannan - Available Projects

Several ongoing funded projects in the lab offer opportunities for interdisciplinary training.

1. Mapping genome-phenome relationships in large gene families:
   This NIGMS-funded (R35) project integrates computational and experimental approaches to map the structural and functional evolution of biomedically important gene families such as protein kinases and glycosyltransferases. The project offers collaboration with CCRC faculty and new training opportunities in applying NMR and cryo-EM techniques for investigating protein dynamics, evolution, and design.

2. Application of AI and data integration tools for protein classification and function prediction
   This NCI-funded (U01) project focuses on developing and applying new cutting-edge informatic tools for illuminating the understudied druggable genome. This project offers the opportunity to work with a collaborative network of investigators from multiple institutions (UGA, Van Andel Institute, UNC Chapel Hill, and UCSF) and provides training in team science.

3. Building a Translational Informatics Network for Personalized Medicine-Based Treatment Strategies for Alzheimer's and Parkinson's Diseases
   This new project, developed in collaboration with faculty at the Center for Neurological Disease Research (CNDR) at UGA, focuses on discovering new kinome-based biomarkers for neurological diseases through integrative mining of patient-derived data from the NIH AMP-PD consortium. This project offers the opportunity to train in translational neuroscience by working collaboratively with computational and wet-lab scientists within the UGA CNDR.