
PROGRESS REPORT

Project title: Investigating the molecular basis of protein dynamics in cystinosis

Principal Investigator: Liang Feng

Mar 2023 – Aug 2023

Objectives:

In this study, the goal is to understand the molecular basis of protein dynamics that have important implications in cystinosis.

Executive overview of progress: Suitable for public disclosure

Membrane proteins are essential in lysosomal physiology, and their native lipid environment is crucial for their function and regulation. We are developing biophysical and biochemical methods to characterize membrane proteins that are significant in cystinosis, within an environment that more closely resembles their native environment. These studies will help us better understand how these proteins work at the molecular level under native-like conditions. Additionally, our research will enhance our understanding of how disease-causing mutations affect the functions of these proteins. This could provide crucial insights to aid the development of strategies to mitigate the adverse effects of such mutations for potential therapeutic purposes.