# Research Summary

**Primary Project:**

**Title:** Assessing the Visualization, Understanding and Competences Displayed by Students in a Novel Research-like Biochemistry Laboratory Focused on Identifying Protein Function through Computational and Biochemical Methods

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**Goals:** The goals of my project are (1) to develop a better understanding of how students interpret data in a research-like (or Course-based Undergraduate Research Experiences) lab and (2) to gain an in-depth understanding of a biochemistry research-like curriculum.

**Methods:** To assess this research-like lab curriculum and to achieve my goals several qualitative research methods will be implemented, including:

- Semi-structured interviews
- Laboratory/classroom observations
- Document analysis (e.g. lab notebooks and lab reports)
- open-ended assessment probes to asses *actual* learning within this curriculum

**Outcomes:** A better understanding of the effects of research-like biochemistry labs on students' learning and abilities. In addition, this research has implications of better understanding the feasibility of the research-like lab courses being implemented.

**Collaborations:** The curriculum under study is a part of a multi-institutional collaboration with Rochester Institute of Technology, Cal Poly, Hope College, St. Mary's, Oral Roberts University, and Ursinus.

**Support:** The development and implementation of this course is an NSF funded project titled "Collaborative Research: Using protein function prediction to promote hypothesis-driven thinking in undergraduate biochemistry education" (NSF#1503798).

**Key References:**

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