

3) Provide a short paragraph including both personal and professional biographical information.

Educated my B.S. degree in Biology Rutgers University, College of Arts and Sciences and Ph.D. degree in
Cellular Biology at Loyola University Chicago. My research interests are in the ecology of bacterial communities
activities on the structure and function of bacterial communities in the environment, with a focus on aquatic
habitats. You can find more information about my work on my lab website
(<http://kellymicrocolab1.wix.com/kelly>).

_____ I live in the city of Chicago in the Andersonville neighborhood, which is
just a few miles south and west of Loyola. I live with my wife Eva, my 15-year-old son Liam, and our dogs Charlie
and Hank. Charlie is a 6-year-old labrador retriever and Hank is a 9-month-old St. Bernard.

**Women in Science Enabling Research
Faculty Research Proposal**

Faculty Name and Department: Jennifer Mierisch, Department of Biology

Project Title: Exploring the genetic mechanisms regulating gametogenesis

- 1) **Please provide a short discussion of your research project and goals for the Summer of 2024.**
Continued species propagation hinges on the ability of males and females to produce quality sperm and eggs via the process of gametogenesis. The development of sperm and egg occurs via a stepwise process that begins with a germline stem cells that divides mitotically, undergoes meiosis, and completes maturation. This process requires supporting somatic cells that signal to the developing sperm and egg to ensure its proper development. Defects in signaling between the somatic support cells and the developing sperm and egg can arrest this process and lead to infertility. Therefore, characterizing the signals sent and received by each cell type and identifying the downstream outputs of these signals is needed to understand the infertility can arise. My lab is particularly interested in the role of Notch signaling in gametogenesis. Notch signaling in the somatic support cells is needed to pro

**Women in Science Enabling Research
Faculty Research Proposal**

Faculty Name and Department: Robert G. Morrison, PhD, Psychology/Neuroscience

Project Title:

**Women in Science Enabling Research
Faculty Research Proposal**

Faculty Name and Department: Ken Olsen, Department of Chemistry and Biochemistry

Project Title: Molecular Dynamics of Drug-Protein and Drug-Polymer Interactions

1) Please provide a short discussion of your research project and goals for the Summer of 2024.
The projects in my laboratory are computational simulations of molecular interactions

**Women in Science Enabling Research
Faculty Research Proposal**

Faculty Name and Department: Martina Schmeling, Chemistry and Biochemistry department

Project Title: Environmental Sampling of Chicago Industrial Corridors

1) **Please provide a short discussion of your research project and goals for the Summer of 2024.**

Industrial pollution is a common occurrence in many urban areas including Chicago which has been a center of industrial production and a major transportation hub for more than a century. Special zones, known as industrial corridors, have been set aside to accommodate the different industries, but concerns have grown on the pollution these industrial corridors produce and their impacts on the surrounding neighborhoods. Whereas air pollution is being monitored per state requirement, very little is known about