# BioMaP REU 2023 **Biological Materials and Processes Research Experience for Undergraduates** Summer Research Experience for Undergraduate Students

## IOWA STATE UNIVERSITY. **Department of Chemical and Biological Engineering**



BioMaP creates novel research experiences for undergraduate students from around the nation in the areas of biological materials and processes. Students are active members of interdisciplinary groups and interact with faculty, post-doctoral researchers, graduate students and industry. Students may also participate in cohort experiences such as seminars, meetings, workshops and more.

## Stipend of \$500 per week Travel expenses paid up to \$800

#### Food & housing allowance up to \$2,500



**BioMaP REU at Iowa State** University is funded by the

National Science Foundation. All baccalaureate-track and community college students who are U.S. citizens or permanent residents are encouraged to apply. The application process includes

Student accommodatio

More information: www.cbe.iastate.edu/research/undergraduate-research/ Please refer any questions to biomap@iastate.edu

## Application window: Jan. 1- Feb. 15, 2023

## May 30 - August 4, 2023

## **Choose from these research projects**

**Immunomodulatory Nanovaccines Against Infectious Diseases** 

**Drug and Gene Delivery** 

**Fabrication and Characterization of Optical Metamaterials Using DNA Origami Templates** 

**Controlling Structure and Mechanical Properties** to Understand and Guide Cell Migration

**Model Validation for Photosynthetically Active Radiation Transport in Algal Photobioreactors** 

**Microbial Cell Factories for Lipid Conversion** 

**Thermal Deconstruction of Biomass** 

**The Artificial Pancreas Project** 

**Understanding the Relation Between Aptamer Structure and Function for Sensors and Synthetic** Biology

**Developing New Oral Vaccines through the Minigut Mucosal System** 

**Probiotic Engineering** 

**Toward Real-Time Control of Cell Differentiation Using Reinforcement Learning** 

**Lignin-Based Engineering Thermoplastics** 



#### **Comments from past program participants:**

"I gained a lot of skills not only in lab procedures, but in experimental design."

"The faculty and grad students are great. The campus is very beautiful and excellent for walking and biking."

"I wasn't sure about graduate school but this program gave me the confidence to know I can do it."

lowa State University does not discriminate on the basis of race, color, age, ethnicity, religion, national origin, pregnancy, sexual orientation, gender identity, genetic information, sex, marital status, disability, or status as a U.S. veteran. Inquiries can be directed to the Office of Equal Opportunity, 3410 Beardshear Hall, 515 Morrill Road, 515 294-7612.