IOWA STATE UNIVERSITY.

Department of Chemical and Biological Engineering

BioMaP REU 2020

Biological Materials and Processes Research Experience for Undergraduates

- Novel research experiences for undergrad students from around the nation in biological materials and processes
- Be an active member of interdisciplinary groups with faculty, post-doctoral researchers, graduate students and industry
- Cohort experiences: seminars, meetings, workshops and more





- Stipend \$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 submitting a resume and two letters of recommendation.

Apply online at:

www.cbe.iastate.edu/research/undergraduate-research/

Application deadline: February 15, 2020

May 26 – July 31, 2020

Research Projects Available:

- Immunomodulatory Nanovaccines Against Infectious Diseases
- Drug and Gene Delivery
- Hyperspectral Imaging of DNA and Protein-Linked Metal Nanoparticles
- Controlling Structure and Mechanical Properties to Understand and Guide Cell Migration
- Model Validation for Photosynthetically Active Radiation Transport in Algal Photobioreactors
- Contribution of Membrane Proteins to Microbial Robustness
- **Thermal Deconstruction of Biomass**
- **The Artificial Pancreas Project**
- Polymer Properties That Selectively Target Tumor-Associated Macrophages
- Understanding the Relation Between Aptamer Structure and Function for Sensors and Synthetic Biology
- Developing New Oral Vaccines Through the Minigut Mucosal System
- **Probiotic Engineering**
- Resonant Biosensors for Enzyme Activity, Protein Binding, and Ion Detection
- Lignin-Based Engineering Thermoplastics

