

BioMaP REU 2017

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 undergrad students from around the country 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. The program is a partnership with the Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM), Monterrey, Mexico.

Stipend of \$450 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/

Please refer any questions to: biomap@iastate.edu

Application deadline: February 15, 2017

May 30 - August 4, 2017

Choose from these research projects:

Immunomodulatory Nanovaccines Against Infectious Diseases

Drug and Gene Delivery

Hyperspectral Imaging of DNA and Protein-Linked Metal Nanoparticles

Competition Between Soluble and Extracellular Matrix Signals during 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

Bacteriophages on Porous Surfaces Used for the Detection of Bacteria

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

ex vivo Mini-gut Mucosal System for the Investigation of New Oral Vaccine

The Social Network of Plants

Genome Engineering in *Lactococcus lactis*

Probiotic Engineering

High-throughput, Contact Free Measurement System of Enzyme Activity Using Bio-Logic Wireless Antennas



Ames, Iowa has been named one of the ten best places to live in the U.S.



"There is so much research going on here and so many directions you can go. Iowa State is very appealing." - 2016 participant Matthew Amroffell, Northwestern University

"The program really stimulated my mind, and has me now questioning new and different things, which is the point of an experience like this." - 2016 participant Michelle Thayer, Grand View University

"The faculty was very supportive and accessible. Their doors were always open." - 2016 participant Ryan McCormick, University of South Carolina