

Overview

NIEHS Program

Requirements:

- ✓ Must be **undergrad** (cannot have graduated).
- ✓ Must be **Science** major.
- ✓ Science GPA of 3.0 or better
- ✓ **GRE not needed.**
- ✓ Should be interested in Ph.D. in environmental sciences.
- ✓ Students eligible after their **2nd year** (juniors).
- ✓ Research experience **not** needed.
- ✓ Fluency in **English** is required. All program activities are conducted in English.



Contact Us

NIEHS Program at Michigan State University

Life Science
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MICHIGAN STATE
UNIVERSITY

NIEHS Summer Research Program at Michigan State University



If you are an undergraduate student and you are interested in pursuing a Ph.D. degree in environmental health sciences, **this program is for you!**

NIEHS

The mission of the National Institute of Environmental Health Sciences is to discover how the environment affects people in order to promote healthier lives. The studies conducted at NIEHS are often long term and high risk in nature and involve unique components, such as epidemiological studies of environmentally associated diseases, toxicological testing of environmental substances and intervention and prevention studies to reduce the effects of exposures to hazardous environments.

www.niehs.nih.gov

Michigan State University

Michigan State University's Institute for Integrative Toxicology builds upon recognized research strength on the health effects and environmental effects of toxic agents. With over 70 affiliated faculties who are distinguished in a wide range of scientific disciplines, the IIT offers an innovative and highly integrative environment for research, teaching, and graduate education in toxicology. Trainees acquire a broad base of knowledge through a program of courses, seminars, workshops and scientific meetings as well as by becoming active members of a research laboratory and the campus-wide toxicology community. This training prepares students in a highly collaborative and interactive environment to become leaders in the discipline of toxicology with a focus on solving current problems and preventing future threats to human, animal and environmental health.

www.iit.msu.edu



Summer Research

Expectations:

- ✓ Work on a hypothesis-directed research project. Research project is selected for the student with efforts made to match their interests with those of a research lab. However, students do not get to choose their project.
- ✓ Present poster at the MSU Mid-SURE Research Symposium. (www.urca.msu.edu/mid-sure)
- ✓ Give 15 min. oral presentation on research project at conclusion of summer program.
- ✓ Students may **not** be involved in other activities such as taking online classes, studying for the MCAT or other distracting activities.

Provided:

- ✓ Travel to/from home to East Lansing (students will be met at the airport). Local students may drive, and be reimbursed for mileage.
- ✓ Stipend **\$10.00/hr, 40 hrs/wk for 10 wks begins end of May and ends ~ August 10th.**
- ✓ Food/housing in a single room in a graduate dormitory. * (<http://liveon.msu.edu/rivertrail/owen>)
- ✓ Health insurance.

To apply: Send directly by email to Dr. William D. Atchison (atchiso1@msu.edu).

- ✓ Start **January 1st** and end on **March 20th** or until all positions are filled. Early acceptance is available.
- ✓ Resume or CV including all relevant experience.
- ✓ Personal statement in which you describe your professional goals, prior experience and describe how this NIEHS experience will help you attain your goals.
- ✓ Non-official transcripts including a list of all courses currently being taken.
- ✓ **(3)** Letters of recommendation send as PDF to the email address above, and addressed to Dr. Atchison.

NIEHS Faculty at MSU

The following are a representative group of participating faculty

William D. Atchison: Dr. Atchison's interest is in the cellular mechanism of action of chemicals which disrupt Ca²⁺ dependent processes at the membrane and intracellularly.

James P. Luyendyk: Dr. Luyendyk's focus is on identifying novel mechanisms whereby the coagulation cascade contributes to liver disease pathogenesis.

Patricia E. Ganey: Dr. Ganey's research interests lie in the interaction of inflammation and chemically induced liver injury.

Robert A. Roth: Dr. Roth's interest is in the Inflammation as a determinant of sensitivity to toxic agents.

John J. LaPres: Dr. LaPres focus on PAS proteins (Per, ARNT and Sim) transcription factors that play a central role in sensing and coping with changes in various environmental cues.

Cheryl E. Rockwell: Dr. Rockwell interest is in the effects of xenobiotic sensors on the regulation of lymphocyte function.

Gina M. Leininger: Dr. Leininger studies how neurons in the lateral hypothalamic area (LHA) contribute to energy balance and obesity.

A.J. Robison: Dr. Robison focuses on how models of drug addiction and chronic stress alter gene expression in discreet brain regions, particularly the hippocampus.

Timothy Zacharewski: Dr. Zacharewski's focus on mechanistic toxicology that involves elucidating how a chemical elicits its adverse effects.

Michelle Mazei-Robison: Mazei-Robison lab is interested in the molecular mechanisms that underlie changes in VTA DA neuron signaling, morphology, and activity induced in neuropsychiatric disorders.

Norbert E. Kaminski: Dr. Kaminski focus in characterize the mechanism for immune modulation by cannabinoid compounds.