To Register:

The Symposium is open to all MSU faculty, staff, graduate and undergraduate students, as well as members of neighboring institutions and the community.

1)Go to: http://genetics.msu.edu/activities/symposium.html to download the Registration Form.
2) Email the Registration Form to genetics@msu.edu.

Poster Session:

A poster session and open reception will be held in the afternoon from 4:15-6:00 PM in the Law College Building. Light refreshments will be served.

Those who wish to present a research poster (4'x4') are invited to do so. Posters do not need to be related to the topics of Lipids and Disease in Animals and Plants.

Graduate students and faculty associated with the Genetics Graduate Program are particularly encouraged to participate.

To reserve a poster space , email the title and abstract of your poster to: **genetics@msu.edu**

Event Coordinators:

Dr. Susanne Hoffmann-Benning,
Biochemistry and Molecular Biology

Dr. Barbara Atshaves,
Biochemistry and Molecular Biology

GENETICS
GRADUATE PROGRAM

The MSU Genetics Program is an interdisciplinary, degree-granting program that provides graduate education and training to students whose primary interest lies in the realm of modern genetics. The approximately 120 faculty members in the Genetics Program have academic appointments in 23 different departments, or work in affiliated institutions, such as the Van Andel Research Institute in Grand Rapids, or USDA facilities at MSU. Although these departments and units are affiliated with eight different Colleges, the College of Natural Science is the home and sponsor of the Genetics Program.

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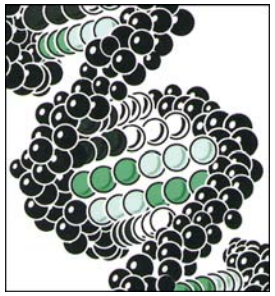
MICHIGAN STATE
UNIVERSITY



Genetics Ph.D. Program Mini-symposium

Lipids and Disease in Animals and Plants

Wednesday, June 10, 2015
9:00 a.m. to 6:00 p.m.

Room 471, Law College Bldg.
648 N Shaw Lane
Michigan State University

Lipids and Disease in Animals and Plants | **Wednesday, June 10, 2015** | **471 MSU Law College Building**

Schedule:

8:30– 9:00 **Registration and Poster Set-up**

9:00—9:10 **Welcome & Opening Remarks**

9:10-9:25 **Charles Najt**
"Role of Perilipin 2 in the progression of NASH "

9:30-10:30 **Dr. Douglas Mashak**
"Breaking fat: the regulation and consequences of lipid droplet catabolism"

10:30– 10:45 **Break**

10:45 –11:45 **Dr. John Dyer**
"Leveraging the knowledge of human lipid disorders for massive production of biofuels in plants"

11:45—1:30 **Lunch**
Executive Board Room, 2nd Floor
MSU Law College Building

1:30—1:45 **Allison Barbaglia**
"Lipid signaling in response to stress "

1:50—2:50 **Dr. Jianping Hu**
"Cardiolipin-mediated mitochondrial dynamics and stress response in Arabidopsis"

2:50—3:10 **Break**

3:10—4:10 **Dr. Edgar Kooijman**
"Biophysics of DGPP and its potential role in trypanosomiasis (sleeping sickness)"

4:15—6:00 **Poster Session and Reception**

Speakers:

John Dyer, Ph.D.

Research Molecular Biologist and Acting Research Leader

Department of Plant Physiology and Genetics

USDA-ARS, US Arid-Land Agricultural Research Center, Maricopa, AZ

Research:
We are interested in studying human lipid disorders to gain insight to conserved cellular processes that regulate lipid accumulation in both animals and plants. Our longer-term goal is to engineer plants to produce massive amounts of lipids in vegetative biomass that can serve as a renewable source of biofuel and feedstocks for industry.

Jianping Hu, Ph.D.

Associate Professor

DOE-Plant Research Laboratory

Michigan State University

Research:
Studies in the Hu lab showed that the phospholipid cardiolipin is essential to plant development and plays a dominant role in mitochondrial fission. CL stabilizes protein complexes of the key organelle division factor dynamin-related proteins 3 (DRP3). CL also protects plants from stresses that induce programmed cell death.

Edgar Kooijman, Ph.D.

Associate Professor,

Department of Biological Sciences

Kent State University

Research:
Studies the biophysics of lipids in relationship to health and disease. A current focus of the lab is physical chemistry of the unusual membrane lipid diacylglycerol pyrophosphate (DGPP). This lipid has never been found in mammalian cell membranes but is made in plants, yeast and certain protozoans as a response to stress signaling. African and American trypanosomiasis, or sleeping disease and Chagas disease respectively, are caused by the protozoans Trypanosoma brucei and Trypanosoma cruzi. Trypanosomes make DGPP and understanding the function of this lipid may reveal additional treatment options for these debilitating tropical diseases.

Douglas Mashek, Ph.D.

Associate Professor

Department of Food Science and Nutrition

University of Minnesota

Research:
The focus of our research program is on fatty acid trafficking and signaling with an emphasis on hepatic lipid droplet biology. Specifically, we attempt to define non-alcoholic fatty liver disease (NAFLD) on a more molecular level and characterize how alterations in lipid droplet proteins influence cell signaling pathways linking NAFLD to its comorbidities