



**2007 FASEB Summer Research Conferences**  
**Lipid Droplets: Metabolic Consequences of the**  
**Storage of Neutral Lipids**  
**July 28 - August 2, 2007**  
**Vermont Academy, Saxtons River, Vermont**

**Co-organizers:**

**Dawn L. Brasaemle, Ph.D.**

Rutgers, The State University of New Jersey  
New Brunswick, NJ

**Rosalind A. Coleman, M.D.**

University of North Carolina  
Chapel Hill, NC

**Saturday, July 28, 2007**

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| 2:00p.m. – 12 midnight | Conference Registration  |
| 6:00p.m. – 7:00p.m.    | FASEB Opening Reception  |
| 7:00p.m. – 8:30p.m.    | Dinner   |
| 8:45p.m. – 10:00p.m.   | Welcome: <b>Dawn L. Brasaemle</b> and <b>Rosalind A. Coleman</b><br>Keynote Speaker: <b>Gerald I. Shulman</b> , Yale University<br>School of Medicine<br>"Role of dysregulated intracellular lipid metabolism in the<br>pathogenesis of Type 2 Diabetes" |

**Sunday, July 29, 2007**

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| 7:30a.m. – 9:00a.m.                    | Breakfast   |
| <b>Session 1:</b> 9:00a.m. – 12:10p.m. | <b>Delivery and Metabolism of Substrates</b><br>Session Chair: <b>Judith Storch</b> , Rutgers University            |
| 9:00a.m. – 9:35a.m.                    | <b>Judith Storch</b> , Rutgers University<br>"Transport and metabolism of monoacylglycerol, the<br>forgotten lipid" |

9:35a.m. – 10:10a.m.	<b>Brandon S. J. Davies</b> , University of California Los Angeles “GPIHBP1: A new player in lipolysis”
10:10a.m. – 10:40a.m.	FASEB Sponsored Coffee Break Group picture
10:40a.m. – 11:00a.m.	<b>Short Talk</b> <b>Chi-Liang Eric Yen</b> , The Gladstone Institute of Cardiovascular Disease “ <i>Mgat2</i> modulates metabolic efficiency of weight gain in response to dietary fat”
11:00a.m. – 11:35a.m.	<b>R. Ariel Igal</b> , Rutgers University “Role of human SCD1 in neutral lipid synthesis”
11:35a.m. – 12:10p.m.	<b>Robert V. Farese, Jr.</b> , The Gladstone Institute of Cardiovascular Disease “Mechanisms of cellular lipid storage”
12:15p.m. – 1:15p.m.	Lunch
	Free Afternoon
4:00p.m. – 6:00p.m.	Poster Session 1: presenters with last names starting with <b>A</b> through <b>L</b> ; Conference sponsored refreshments 5 – 6 p.m.
6:00p.m. – 7:00p.m.	Dinner
<b>Session 2:</b> 7:00p.m. – 9:55p.m.	<b>Synthesis and Storage of Neutral Lipids</b> Session Chair: <b>Stephen L. Sturley</b> , Columbia University
7:00p.m. – 7:35p.m.	<b>Stephen L. Sturley</b> , Columbia University “Cytoplasmic lipid droplets in yeast: Just a sink for lipotoxins?”
7:35p.m. – 8:10p.m.	<b>William S. Blaner</b> , Columbia University “Hepatic stellate cell lipid droplet formation: Role of lecithin:retinol acyltransferase (LRAT)”
8:10p.m. – 8:25p.m.	Conference Sponsored Coffee Break
8:25p.m. – 8:45p.m.	<b>Short Talk</b> <b>Patricia T. Bozza</b> , Instituto Oswaldo Cruz “Macrophage lipid droplets: biogenesis and function in innate immunity”
8:45p.m. – 9:20p.m.	<b>Gil-Soo Han</b> , Rutgers University “Regulation of lipid metabolism by lipin-Mg <sup>2+</sup> -dependent phosphatidate phosphatases”
9:20p.m. – 9:55p.m.	<b>Karen Reue</b> , University of California Los Angeles “Role of Lipin-1 in adipose tissue and muscle lipid metabolism”

## Monday, July 30, 2007

- 7:30a.m. – 9:00a.m. Breakfast
- Session 3:** 9:00a.m. – 12:00p.m. **Lipolysis and Flux of Triacylglycerol Stores**  
Session Chair: **Dominique Langin**, INSERM Toulouse
- 9:00a.m. – 9:35a.m. **Dominique Langin**, INSERM Toulouse  
“Lipolysis and lipases in human white adipose tissue”
- 9:35a.m. – 10:10a.m. **Rudolf Zechner**, University of Graz  
“Lipid droplet breakdown: ATGL and the initiation of lipolysis”
- 10:10a.m. – 10:25a.m. FASEB Sponsored Coffee Break
- 10:25a.m. – 10:45a.m. **Short Talk**  
**Richard Lehner**, University of Alberta  
“Role of triacylglycerol hydrolase in lipid droplet turnover”
- 10:45a.m. – 11:20a.m. **Hei Sook Sul**, University of California, Berkeley  
“Regulation of adipocyte lipolysis”
- 11:20a.m. – 11:55a.m. **William J. Brown**, Cornell University  
“Identification of a conserved lipid droplet targeting motif in the PNPLA/ATGL lipase family”
- 12:00p.m. – 1:00p.m. Lunch
- Free Afternoon
- 4:00p.m. – 6:00p.m. Poster Session 1: presenters with last names starting with **A** through **L**; Conference sponsored refreshments 5 – 6 p.m.
- 6:00p.m. – 7:00p.m. Dinner
- Session 4:** 7:00p.m. – 9:45p.m. **Structural Proteins of Lipid Droplets: PAT family proteins and Oleosins**  
Session Chair: **Constantine Londos**, National Institutes of Health
- 7:00p.m. – 7:35p.m. **Constantine Londos**, National Institutes of Health  
“Discovery of an organelle”
- 7:35p.m. – 8:10p.m. **Perry E. Bickel**, Washington University School of Medicine  
“Exchangeable lipid droplet proteins and cell metabolism: S3-12, just another pretty name?”
- 8:10p.m. – 8:25p.m. Conference Sponsored Coffee Break
- 8:25p.m. – 8:45p.m. **Short Talk**  
**Carole Sztalryd**, University of Maryland  
“Interaction between lipases and lipid droplet coat proteins”
- 8:45p.m. – 9:20p.m. **James L. McManaman**, University of Colorado Health Sciences Center  
“Role of adipophilin in milk lipid formation and secretion”

9:20p.m. – 9:55p.m.

**Anthony Huang**, University of California, Riverside  
“Subcellular oil (neutral lipid) droplets in plants”

**Tuesday, July 31, 2007**

7:30a.m. – 9:00a.m.

Breakfast

**Session 5:** 9:00a.m. – 12:00p.m.

**Lipid Metabolism and Storage in Diverse Organisms**  
Session Chair: **Steven A. Farber**, Carnegie Institute of Washington

9:00a.m. – 9:35a.m.

**Steven A. Farber**, Carnegie Institute of Washington  
“Cell biology in vivo: Using the zebrafish for real-time studies of lipid absorption and processing”

9:35a.m. – 10:10a.m.

**Kaveh Ashrafi**, University of California, San Francisco  
“Analysis of fat regulatory pathways in *C. elegans*”

10:10a.m. – 10:25a.m.

FASEB Sponsored Coffee Break

10:25a.m. – 10:45a.m.

**Short Talk**

**Raphael H. Valdivia**, Duke University  
“The obligate intracellular pathogen *Chlamydia trachomatis* binds to and co-opts mammalian lipid droplets”

10:45a.m. – 11:20a.m.

**Ronald P. Kuhnlein**, Max Planck Institute for Biophysical Chemistry

“Fat flies: Lipid droplets as regulatory compartment of organismal energy homeostasis in *Drosophila*”

11:20a.m. – 11:55a.m.

**JoAnne Stubbe**, Massachusetts Institute of Technology,  
“Polyhydroxybutyrate formation in *R. eutropha*”

12:00p.m. – 1:00p.m.

Lunch

Free Afternoon

4:00p.m. – 6:00p.m.

Poster Session 2: presenters with last names starting with **M** through **Z**; Conference sponsored refreshments 5 – 6 p.m.

6:00p.m. – 7:00p.m.

Dinner

**Session 6:** 7:00p.m. – 9:45p.m.

**Lipid Droplets as a Dynamic Compartment**  
Session Chair: **Andrew S. Greenberg**, Tufts University

7:00p.m. – 7:35p.m.

**Andrew S. Greenberg**, Tufts University,  
“Structure/function studies of perilipin in adipocytes, animals, and humans”

7:35p.m. – 8:10p.m.

**John McLauchlan**, University of Glasgow  
“The role of lipid droplets in the production of infectious hepatitis C virus”

8:10p.m. – 8:25p.m.

Conference Sponsored Coffee Break

8:25p.m. – 8:45p.m.

**Short Talk**

**Vishwajeet Puri**, University of Massachusetts Medical School

“Cidea and Cidec as a novel regulators of triglyceride storage in human adipocytes”

8:45p.m. – 9:20p.m.

**Sepp D. Kohlwein**, University of Graz

“Birth of an organelle: lipid droplet formation, fusion and inheritance in yeast”

9:20p.m. – 9:55p.m.

**Joel M. Goodman**, University of Texas Southwestern Medical School

“Surprises from a yeast screen for lipid body assembly mutants”

**Wednesday, August 1, 2007**

7:30a.m. – 9:00a.m.

Breakfast

**Session 7:** 9:00a.m. – 12:00p.m.

**Cell Biology of Lipid Droplets**

Session Chair: **Deborah A. Brown**, Stony Brook University

9:00a.m. – 9:35a.m.

**Deborah A. Brown**, Stony Brook University

“Adipocyte differentiation-related protein reduces lipid droplet association of adipose triglyceride lipase and slows triacylglycerol turnover”

9:35a.m. – 10:10a.m.

**Paul F. Pilch**, Boston University School of Medicine

“Caveolins modulate transmembrane fatty acid movement”

10:10a.m. – 10:25a.m.

FASEB Sponsored Coffee Break

10:25a.m. – 10:45a.m.

**Short Talk**

**Timothy A. Schulz**, National Institutes of Health

“Oxysterol binding protein homologs: promoters of inter-organelle contacts?”

10:45a.m. – 11:20a.m.

**Sally Martin**, University of Queensland

“Dynamic remodelling of lipid droplets by modulation of beta-adrenergic receptor activity in 3T3-L1 adipocytes”

11:20a.m. – 11:55a.m.

**Michael A. Welte**, University of Rochester

“Motor-driven transport of lipid droplets along microtubules: molecular mechanisms and biological roles”

12:00p.m. – 1:00p.m.

Lunch

1:00p.m. – 2:00p.m.

Business meeting for organizers and session chairs for poster awards

Free Afternoon

3:00p.m. – 4:00p.m.

**Nomenclature of lipid droplet associated proteins:**  
Discussion

4:00p.m. – 6:00p.m. Poster Session 2: presenters with last names starting with **M** through **Z**; Conference sponsored refreshments 5 – 6 p.m.

6:00p.m. – 7:00 p.m. Dinner

**Session 8:** 7:00p.m. – 9:45p.m. **Metabolic Consequences of Stored Triacylglycerol**  
Session Chair: **Barbara Corkey**, Boston University School of Medicine

7:00p.m. – 7:35p.m. **Barbara E. Corkey**, Boston University School of Medicine  
“An adipocentric view of the thrifty phenotype”

7:35p.m. – 8:10p.m. **Deborah M. Muoio**, Duke University  
“Intramuscular triacylglycerol and insulin resistance: Guilty as charged or wrongly accused?”

8:10p.m. – 8:25p.m. Conference Sponsored Coffee Break

8:25p.m. – 8:45p.m. **Short Talk**  
**Malin C. Levin**, The Gladstone Institute of Cardiovascular Disease  
“DGAT2-mediated lipid accumulation in glycolytic (type II) muscle promotes insulin resistance

8:45p.m. – 9:20p.m. **Bret H. Goodpaster**, University of Pittsburgh,  
“Intra and extramyocellular lipids: Response to diet-induced weight loss and exercise”

9:20p.m. – 9:55p.m. **Karin E. Bornfeldt**, University of Washington  
“Role of long-chain acyl CoA synthetase 1 in murine macrophages”

### **Thursday, August 2, 2007**

7:30a.m. – 9:00a.m. Breakfast

11:35a.m. – 12:30p.m. Box Lunches Available

### **END OF CONFERENCE**

For additional information contact:  
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