

Workshop on the Establishment, Maintenance, and Turnover of Fat Depots

Lister Hill Auditorium, Building 38A, National Institutes of Health Campus, Bethesda, MD

May 21-22, 2008

DRAFT AGENDA

Day 1 Wednesday, May 21, 2008

- 7:30 a.m. **Registration and Continental Breakfast
(Lister Hill Auditorium, NIH Campus)**
- 8:15–8:30 a.m. **Opening Remarks/Meeting Overview**
- 8:30–9:15 a.m. **Keynote 1: The Developmental Origins of Fat and Its Impact on
Disease**
C. Ronald Kahn, M.D., Joslin Diabetes Center, Harvard University
- 9:15–10:00 a.m. **Keynote 2: Are Skeletal Muscle Stem Cells Responsible for Fat
Accumulation in Aging Muscle?**
Brad Olwin, Ph.D., University of Colorado at Boulder
- 10:00-10:30 a.m. Break**

Session I:	Adipose Fate Determination (Precursor/Progenitor Cells) <i>C. Ronald Kahn (Moderator)</i>
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- 10:30–11:00 a.m. **Fat Cell Progenitors: Origin and Plasticity**
Christian Dani, Ph.D., University of Nice
- 11:00–11:30 a.m. **The Tortuous Path of the Adipogenic Lineage**
*Jonathan Graff, M.D., Ph.D., University of Texas Southwestern Medical
Center*
- 11:30–12:00 noon **Distinct Origins of Brown and White Adipocytes**
*Barbara Cannon, Ph.D., The Wenner-Gren Institute/Stockholm
University*
- 12:00–12:30 p.m. **PRDM16 Controls the Determination of Brown Fat Cells From
Myogenic Precursors**
*Patrick Seale, Ph.D., Dana-Farber Cancer Institute/Harvard Medical
School*
- 12:30–2:30 p.m. **Poster Session and Lunch Buffet in Atrium**

Day 1 **Wednesday, May 21, 2008**
(Continued)

Session II:	Development of the Niche (Role of Secreted Signals and the ECM) <i>Jon Graff (Moderator)</i>
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- 2:30–3:00 p.m. **Role of Wnt Signaling in Development of Adipose Tissues and Bone**
Ormond MacDougald, Ph.D., University of Michigan
- 3:00–3:30 p.m. **Adipose Tissue and Adipose Tissue Vasculature Development: Depot Dependent Expression of Genes and Proteins**
Gary Hausman, Ph.D., University of Georgia
- 3:30–4:00 p.m. **Collagenolytic Remodeling of Fat Tissue Architecture During Obesity Progression**
Tae-Hwa Chun, M.D., Ph.D., University of Michigan
- 4:00–4:30 p.m.** **Break**
- 4:30–5:00 p.m. **Novel Role of Bone Morphogenetic Protein-7 in Brown Adipogenesis and Energy Expenditure**
Yu-Hua Tseng, Ph.D., Joslin Diabetes Center, Harvard University
- 5:00–5:15 p.m. **Hot Topic—Mapping the Adipogenic Lineage of the Human Mesenchymal Stem Cell**
Danielle MacKay, Ph.D., Case Western Reserve University
- 5:15–5:30 p.m. **Hot Topic—Myostatin, Activin Receptor IIb and Follistatin-like Gene Expression is Altered in Adipose Tissue of Obese Mice**
David Allen, Ph.D., University of Colorado, Boulder
- 5:30 p.m. **Adjourn**

Day 2 **Thursday, May 22, 2008**

- 7:30–8:00 a.m. **Registration and Continental Breakfast**
(Lister Hill Auditorium, NIH Campus)

Session III:	Cellular Diversity and Turnover in Fat Depots <i>Jim Granneman (Moderator)</i>
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- 8:00–8:30 a.m. **Regional Differences in Preadipocytes: Are Different Fat Depots Distinct Mini-Organs?**
James Kirkland, M.D., Ph.D., Boston University
- 8:30–9:00 a.m. **A Role of p107 in Mesodermal Cell Fate Decisions**
Anthony Scime, Ph.D., University of Ottawa

Day 2 Thursday, May 22, 2008 (Continued)

- 9:00– 9:15 a.m. **Hot Topic—Functions of PPAR γ in Early Adipogenesis *in vivo* and *in vitro***
Suyeon Kim, Ph.D., The Jackson Laboratory
- 9:15-9:30 am **Hot Topic—Atf4 Mutant Mice are Lean**
Jin Seo, Ph.D., University of Texas Southwestern Medical Center
- 9:30 – 10:00 a.m. Break**
- 10:00–10:30 a.m. **Critical Factors Restricting Fat Expansion**
Phillip Scherer, Ph.D., University of Texas Southwestern Medical Center
- 10:30–11:00 a.m. **Dynamics of Adipose Tissue Components in Vivo in Experimental Animals and Humans: Modulation by Genes, Hormones and Drugs**
Marc Hellerstein, M.D., Ph.D., University of California at Berkeley
- 11:00–11:15 a.m. **Hot Topic—Dysregulation of Adipocyte Biology and Metabolic Profile by Ablation of α 3(V) Collagen**
Daniel Greenspan, Ph.D., University of Wisconsin
- 11:15–11:30 a.m. **Hot Topic—Cidea and FSP27: Novel Proteins Associated with Fat Metabolism and Insulin Sensitivity in Humans**
Vishwajeet Puri, Ph.D., University Massachusetts Medical School
- 11:30–11:45 a.m. **Hot Topic—Factors Contributing to Metabolically Normal Adiposity**
Nikhil Dhurandhar, Ph.D., Pennington, Louisiana State University System
- 11:45–1:15 p.m. **Poster Session and Lunch Buffet**
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| Session IV: | Remodeling and Plasticity of Fat Depots
<i>Phillip Gorden (Moderator)</i> |
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- 1:15–1:45 p.m. **Cellular and Metabolic Plasticity of White Adipose Tissue: Effects of β -Adrenergic Stimulation**
James Granneman, Ph.D., Wayne State University
- 1:45–2:15 p.m. **Depot Selective Role for Macrophages in Obesity-Associated Adipose Tissue Remodeling**
Martin Obin, Ph.D., Tufts University
- 2:15–2:45 p.m. **Exploring Inflammatory Links Between Obesity and Diabetes**
Alan Saltiel, Ph.D., University of Michigan
- 2:45–3:15 p.m. **Bone Marrow Mesenchymal Progenitor Cells Give Rise to a Unique Adipocyte Population in Adipose Tissue**
Dwight Klemm, Ph.D., University of Colorado Health Sciences Center
- 3:15–3:30 p.m. **Hot Topic—Identification of G0S2 as a Novel Bcl-2 Binding Protein Regulator in Adipocytes**
Jun Liu, Ph.D., University of Kentucky, School of Medicine

3:30–3:45 p.m.

Hot Topic—Rapid Improvement of Glucose Tolerance Independent of Loss of Weight by a Peptide Inducing Apoptosis in Endothelium of White Adipose Tissue

Dong-Hoon Kim, M.D., University of Cincinnati

3:45–4:00 p.m.

Closing Remarks

4:00 p.m.

Adjournment