



COLUMBIA UNIVERSITY

*College of Physicians
and Surgeons*



the Naomi Berrie **DIABETES CENTER**
Columbia University Medical Center
the care until the cure

18th Annual Conference

Frontiers in Diabetes Research

Biology of the Adipocyte:

Causes and Effects in Diabetes and Obesity

Saturday, November 19, 2016



Course Directors

Domenico Accili, M.D., *Russell Berrie Foundation Professor of Medicine (in Diabetes); Director, Diabetes and Endocrinology Research Center, Columbia University College of Physicians & Surgeons, New York, New York*

Robin S. Goland, M.D., *J. Merrill Eastman Professor of Diabetes (in Medicine, Pediatrics, and the Naomi Berrie Diabetes Center) at CUMC; Co-Director, Naomi Berrie Diabetes Center, Columbia University College of Physicians & Surgeons, New York, New York*

Rudolph L. Leibel, M.D., *Professor of Pediatrics and Medicine; Christopher J. Murphy Memorial Professor of Diabetes Research; Head, Division of Molecular Genetics; Co-Director, Naomi Berrie Diabetes Center, Columbia University College of Physicians & Surgeons, New York, New York*

Faculty

Peter Arner, M.D., *Professor, Department of Medicine, Karolinska Institutet, Stockholm, Sweden*

Anthony W. Ferrante, M.D., Ph.D., *Associate Professor of Medicine, Columbia University College of Physicians & Surgeons, New York, New York*

Susan K. Fried, Ph.D., *Director of Translational Adipocyte and Obesity Research, Diabetes, Icahn School of Medicine at Mount Sinai, New York, New York*

Timothy E. McGraw, Ph.D., *Professor of Biochemistry, Weill Cornell Medical College, New York, New York*

Li Qiang, Ph.D., *Assistant Professor of Pathology and Cell Biology, Columbia University College of Physicians & Surgeons, New York, New York*

Matthew S. Rodeheffer, Ph.D., *Associate Professor of Comparative Medicine and Molecular, Cellular and Developmental Biology, Yale University School of Medicine, New Haven, Connecticut*

Gary J. Schwartz, Ph.D., *Professor of Medicine and Neuroscience, Albert Einstein College of Medicine, Bronx, New York*

Steven R. Smith, M.D., *Professor, Integrative Metabolism Program, Sanford Burnham Prebys Medical Discovery Institute; Scientific Director, Translational Research Institute for Metabolism and Diabetes; SVP/Chief Scientific Officer, Florida Hospital, Orlando, Florida*



Saturday, November 19, 2016

- 8:00 a.m. *Registration; Continental Breakfast*
- 8:45 a.m. Welcome and Introduction
Robin S. Goland, M.D. & Rudolph L. Leibel, M.D.
- 9:00 a.m. The Human Adipocyte: Cause and Consequence in Obesity
Peter Arner, M.D.
- 9:30 a.m. Dietary Regulation of Adipocyte Formation: Understanding How We Get Fat
Matthew S. Rodeheffer, Ph.D.
- 10:00 a.m. Panel Discussion
- 10:15 a.m. *Refreshment Break*
- 10:35 a.m. Control of Body Fat Distribution
Susan K. Fried, Ph.D.
- 11:05 a.m. Regional Cell Autonomous Differences in Subcutaneous Gene Expression and the Roles of lncRNAs/Epigenetic Control
Steven R. Smith, M.D.
- 11:35 a.m. Panel Discussion
- 12:00 p.m. *Lunch*
- 1:15 p.m. Brain Control of Fat Metabolism
Gary J. Schwartz, Ph.D.
- 1:45 p.m. Inflammation in Adipose Tissue
Anthony W. Ferrante, M.D., Ph.D.
- 2:15 p.m. Panel Discussion
- 2:30 p.m. *Refreshment Break*
- 2:50 p.m. Targeting of PPAR γ Acetylation: Roles in Beiging and Aging
Li Qiang, Ph.D.
- 3:20 p.m. Regulated Glucose Transport into Adipocytes Affects Liver Insulin Sensitivity
Timothy E. McGraw, Ph.D.
- 3:50 p.m. Panel Discussion
- 4:05 p.m. General Discussion
Domenico Accili, M.D.
- 4:25 p.m. *Adjourn*

Program Description & Objectives

This one-day program at the Naomi Berrie Diabetes Center at Columbia University is designed for research scientists, clinicians and students with an interest in the latest insights with regard to the genetics of diabetes and obesity and the molecular physiology of the causes and consequences of these disorders.

Adipose tissue responds to energy balance and a variety of circulating molecules and neural inputs. The tissue also generates signals that play important roles in energy homeostasis and glucose and lipid metabolism. How these processes and others influence the development and anatomic distribution of adipocytes are important topics of current research. This symposium will address many of these topics.

At the conclusion of this activity, participants will be better able to:

- Discuss current thinking regarding the cell biology of adipose tissue development, and the turnover of adipocytes.
- Recognize biochemical and molecular mechanisms for the synthesis and mobilization of acylglycerides in the adipocyte.
- Describe the functional biology of “beige fat”.
- Discuss brain/neural regulation of adipose tissue energy balance.
- Describe mechanisms for, and consequences of, inflammation in adipose tissue.

The Naomi Berrie Diabetes Center

The Naomi Berrie Diabetes Center, combining premier family-centered patient care and education for children and adults with world-class research, opened in October 1998. The Center offers coordinated, multidisciplinary clinical care for adults and children with diabetes. Educational, nutritional and psychosocial counseling help the patient and family to cope effectively with diabetes. Basic and clinical research programs at the Berrie Center focus on the biologic bases for diabetes and obesity. The Naomi Berrie Diabetes Center’s commitment to patient care, research and education reflects its mission to improve the lives of people with diabetes and its dedication to finding a cure. For additional information, call the Center at (212) 851-5492 or visit our web site:

www.nbdiabetes.org

Additional Information

Contact: Center for Continuing Medical Education
Columbia University College of Physicians & Surgeons
630 West 168th Street, Unit 39
New York, NY 10032
Telephone: (212) 305-3334
Fax: (212) 305-5740
e-mail: cme@columbia.edu
<http://ColumbiaCME.org>

Meeting Location

Russ Berrie Medical Science Pavilion
Columbia University Medical Center
1150 St. Nicholas Avenue
1st Floor Conference Room
New York, New York 10032

Complimentary parking will be available in the Herbert Irving Comprehensive Cancer Center parking lot located at 1130 St. Nicholas Avenue (167th Street between Audubon Avenue and St. Nicholas Avenue).

Accreditation Statement

The College of Physicians and Surgeons of Columbia University is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

AMA Credit Designation Statement

The College of Physicians and Surgeons designates this live activity for a maximum of 5.5 *AMA PRA Category 1 Credits*™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Tuition

Physicians & Research Scientists: \$150; Other Health Professionals: \$90; Residents & Fellows in training (with a letter from program director certifying status): \$50; Students (not affiliated with Columbia University): \$50; CUMC Faculty, Students & Staff (with valid I.D.): Free. The fee includes the academic presentations, continental breakfast, lunch, and refreshments. Confirmation of registration will be sent upon receipt of the registration form. Refund of registration fee, less a \$15 administrative charge, will be made if written notice of cancellation is received by November 9, 2016. No refunds can be made thereafter.

Registration

Space is Limited. Early Registration is Encouraged.

By Mail:

Complete the registration form and mail with full payment to:

**Columbia University
College of Physicians & Surgeons
Center for Continuing Medical Education
630 West 168th Street, Unit 39
New York, NY 10032**

On-Line:

<http://columbiacme.org>

**Telephone registrations and/or
cancellations are not accepted.**

Americans with Disabilities Act

The Columbia University College of Physicians and Surgeons fully complies with the legal requirements of the ADA and the rules and regulations thereof. Any participant with special needs must submit a written request to our office at least one month prior to the course date.

Registration Form

COLUMBIA UNIVERSITY

Diabetes
(Please print or type)

Last Name Degree

First Name Middle Initial

Address

City State Zip

Daytime Phone Daytime Fax

e-mail

Please note: Your e-mail address is used for critical information about the course including: registration confirmation, course evaluation and certificate. Please be sure to include an e-mail address you check daily or frequently.

Institution

Medicine PM 91
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UR009615/5.5

- ☐ \$150 Physicians & Research Scientists
- ☐ \$90 Other Health Professionals
- ☐ \$50 Residents & Fellows in training
(with a letter from program director certifying status)
- ☐ \$50 Students
(not affiliated with Columbia University)
- ☐ Free CUMC Faculty, Students & Staff
(with valid I.D.)

☐ Enclosed is a check or money order made payable to
Columbia University
Checks must be in U.S. Dollars drawn on a U.S. bank.
Money Orders must be in U.S. Dollars.

For security purposes, credit card payments cannot be accepted by mail or fax. Please visit www.columbiacme.org to register and pay by credit card. American Express, Discover, MasterCard and Visa only.



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