



COLUMBIA UNIVERSITY

*College of Physicians
and Surgeons*



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

16th Annual Conference

Frontiers in Diabetes Research: Next Wave Science in Diabetes and Obesity.

Saturday, November 22, 2014



Course Directors

Domenico Accili, MD, *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, MD, *J. Merrill Eastman Professor of Diabetes (in Medicine, Pediatrics, and the Naomi Berries Diabetes Center) at CUMC; Co-Director, Naomi Berrie Diabetes Center, Columbia University College of Physicians & Surgeons, New York, New York*

Rudolph L. Leibel, MD, *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

Ivan de Araujo, DPhil, *Associate Professor of Psychiatry; Associate Fellow, The John B Pierce Laboratory, Yale University School of Medicine, New Haven, Connecticut.*

Wendy Chung, MD, PhD, *Associate Professor of Pediatrics, Head, Division of Clinical Genetics, Columbia University Medical Center, New York, New York.*

Kevin L. Grove, PhD, *Senior Scientist, Division of Reproductive & Developmental Science; Division Chief, Division of Diabetes, Obesity, & Metabolism; Director, Obese NHP Resource, Oregon Health & Science University, Beaverton, Oregon.*

Andrew T. Hattersley, MD, *Professor of Molecular Medicine & Consultant Physician, University of Exeter Medical School, Exeter, Devon.*

Randal Kaufman, PhD, *Professor; Director, Degenerative Disease Research Center for Neuroscience, Aging, and Stem Cell Research, Sanford|Burnham Medical Research Institute, La Jolla, California.*

Ruth J.F. Loos, PhD, *Professor, Preventative Medicine; Director of the Genetics of Obesity and Related Metabolic Traits Program, Mount Sinai Hospital, New York.*

Mark I. McCarthy, MD, *Robert Turner Professor of Diabetic Medicine; Group Head, Wellcome Trust Centre for Human Genetics, University of Oxford, Headington, Oxford.*

David M. Sabatini, MD, PhD, *Professor of Biology; Investigator of the Howard Hughes Medical Institute, Massachusetts Institute of Technology, Cambridge, Massachusetts.*



Saturday, November 22, 2014

- 8:00 a.m. *Registration; Continental Breakfast*
- 8:45 a.m. Welcome & Introduction
Robin S. Goland, MD & Rudolph L. Leibel, MD
- 9:00 a.m. The genetics of obesity – going beyond common variants and common phenotypes
Ruth J.F. Loos, PhD
- 9:30 a.m. Diamonds in the dirt: biological insights and translational opportunities for type 2 diabetes in large-scale genetic and genomic data.
Mark I. McCarthy, MD
- 10:00 a.m. Panel Discussion
- 10:15 a.m. *Refreshment Break*
- 10:35 a.m. Lessons learned from monogenic forms of diabetes
Wendy Chung, MD, PhD
- 11:05 a.m. Rare and beautiful diamonds: how monogenic neonatal diabetes can give new insights into T1D and T2D
Andrew T. Hattersley, MD
- 11:35 a.m. Panel Discussion
- 12:00 p.m. *Lunch*
- 1:15 p.m. Nutrient sensing by the mTOR growth pathway
David M. Sabatini, MD, PhD
- 1:45 p.m. The role of ER stress in molecular aspects of the metabolic syndrome: NAFLD & beta cell failure
Randal Kaufman, PhD
- 2:15 p.m. Panel Discussion
- 2:30 p.m. *Refreshment Break*
- 2:50 p.m. Diamond in the rough, the use of nonhuman primates for key insights into the pathogenesis and treatment of obesity and diabetes
Kevin L. Grove, PhD
- 3:20 p.m. Regulation of brain reward circuitry by glucose metabolism
Ivan de Araujo, DPhil
- 3:50 p.m. Panel Discussion
- 4:05 p.m. General Discussion
Domenico Accili, MD
- 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.

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

- Identify advances in the technologies related to analysis of the genetics of human medical and metabolic phenotypes.
- Articulate the latest insights into the genetics of diabetes and obesity.
- Site the role of specific molecular processes such as ER stress and mTOR signalling in the relevant metabolic physiology.
- Understand the application of brain imaging and long term non-human primate studies to these phenotypes.

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

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.

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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UR008422/5.5

- ☐ \$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.

Tuition

Physicians & Research Scientists: \$150; Other Health Professionals: \$90; Residents & Fellows in training: \$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 12, 2014. 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.



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presented by the
Naomi Berrie Diabetes Center
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