



COLUMBIA UNIVERSITY

*College of Physicians  
and Surgeons*



the Naomi Berrie **DIABETES CENTER**  
Columbia University Medical Center

*the care until the cure*

*14th Annual Conference*

# ***Frontiers in Diabetes Research***

## ***The Immunology of Type 1 Diabetes***

**Saturday, November 17, 2012**



## Course Directors

**Domenico Accili, M.D.,** *Russell Berrie Foundation Professor of Diabetes; Professor of Medicine; 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 Clinical Diabetes; 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

**Daniel G. Anderson, Ph.D.,** *Associate Professor, Chemical Engineering and Health Sciences & Technology, The David H. Koch Institute for Integrative Cancer Research at MIT, Cambridge, Massachusetts*

**Mark S. Anderson, M.D., Ph.D.,** *Associate Professor of Medicine, University of California San Francisco, San Francisco, California*

**Dieter Egli, Ph.D.,** *Adjunct Associate Research Scientist, Division of Molecular Genetics, Columbia University College of Physicians & Surgeons; Senior Research Fellow, New York Stem Cell Foundation, New York, New York*

**George Eisenbarth, M.D., Ph.D.,** *Professor of Pediatrics, Medicine and Immunology; Executive Director, Barbara Davis Center for Childhood Diabetes, University of Colorado Health Sciences Center, Denver, Colorado*

**Kevan C. Herold, M.D.,** *Professor of Immunobiology and Internal Medicine, Yale University School of Medicine, New Haven, Connecticut*

**Diane Mathis, Ph.D.,** *Professor and Head, Division of Immunology, Department of Microbiology and Immunobiology, Harvard Medical School, Boston, Massachusetts*

**Jay S. Skyler, M.D.,** *Professor of Medicine, Pediatrics and Psychology; Deputy Director, Diabetes Research Institute; Chairman, Type 1 Diabetes TrialNet Clinical Trials Network, University of Miami Miller School of Medicine, Miami, Florida*

**Megan Sykes, M.D.,** *Michael J. Friedlander Professor of Medicine and Professor of Microbiology & Immunology and Surgical Sciences (in Surgery); Director, Columbia Center for Translational Immunology, Columbia University College of Physicians & Surgeons, New York, New York*



**Saturday, November 17, 2012**

- 8:00 a.m. *Registration; Continental Breakfast*
- 8:45 a.m. Welcome & Introduction  
**Robin S. Goland, M.D. & Rudolph L. Leibel, M.D.**
- 9:00 a.m. Directions in Immunotherapy  
**Jay S. Skyler, M.D.**
- 9:30 a.m. New Treatment of Type 1 Diabetes:  
Effects on Beta Cell Function and Death  
**Kevan C. Herold, M.D.**
- 10:00 a.m. Panel Discussion
- 10:15 a.m. *Refreshment Break*
- 10:35 a.m. Prevention of Autoimmune Diabetes by  
Aire-expressing Cells  
**Mark S. Anderson, M.D., Ph.D.**
- 11:05 a.m. Regulation of T1D Progression  
**Diane Mathis, Ph.D.**
- 11:35 a.m. Panel Discussion
- 12:00 p.m. *Lunch*
- 1:15 p.m. Targeting Trimolecular Recognition Complexes to Prevent  
Type 1 Diabetes  
**George Eisenbarth, M.D., Ph.D.**
- 1:45 p.m. Role of Tregs in Mixed Chimerism-induced  
Tolerance Induction  
**Megan Sykes, M.D.**
- 2:15 p.m. Panel Discussion
- 2:30 p.m. *Refreshment Break*
- 2:50 p.m. Understanding Diabetes Using Stem Cells  
**Dieter Egli, Ph.D.**
- 3:20 p.m. Biomaterials for the Treatment of Diabetes  
**Daniel G. Anderson, 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 and with an interest in the molecular pathogenesis of type 1 diabetes and implications of these mechanisms for clinical interventions and, ultimately, prevention. As in the past, emphasis will be on the presentation of new and unpublished data, and on vigorous interactions between the audience and speakers.

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

- Discuss the molecular pathogenesis of type 1 diabetes.
- Understand interventions based on these insights.
- Appreciate possible reasons for the increase in incidence of T1D in some populations.

## 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 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](http://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) 781-6047  
e-mail: [cme@columbia.edu](mailto: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 Russ Berrie Pavilion parking lot located at the rear of the building.

## Accreditation/Designation of Credit

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

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.

CME credits from activities presented by ACCME accredited providers may be used toward American Osteopathic Association (AOA) Category 2-A requirements.

## Tuition

Physicians & Research Scientists: \$150; Other Health Professionals: \$90; Residents & Fellows in training (with a letter from program director certifying status); 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 7, 2012. 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**

### By Fax:

Registrants may fax the registration form with credit card information to:  
**(212) 781-6047**

### 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  
November 17, 2012  
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- ☐ \$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.**

☐ Please charge to: ☐ MasterCard ☐ Visa ☐ AMEX

Exp. Date

Card Number

Cardholder's Name

Cardholder's Signature



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# *Frontiers in Diabetes Research* *The Immunology of Type 1 Diabetes*

Saturday, November 17, 2012

*presented by the*  
Naomi Berrie Diabetes Center  
Columbia University  
College of Physicians & Surgeons