

**Eighth Annual Rachmiel Levine
Diabetes and Obesity Symposium**

***Translational Research in Type 1 Diabetes:
Beyond Insulin and the Edmonton Protocol***

January 13 to 16, 2008

Newport Beach Marriott Hotel and Spa, Newport Beach, Calif.

CALL FOR ABSTRACTS
www.levinesymposium.com

Hosted by the Leslie and Susan Gonda (Goldschmied) Diabetes and Genetics Research Center
and the Southern California Islet Cell Resources (SC-ICR) at City of Hope



PROGRAM HIGHLIGHTS

The program will offer four days of lectures by regional, national and international leaders in type 1 diabetes research on the following topics: islet autoimmunity, beta cell death, new technologies in type 1 diabetes research, systems biology, novel signaling pathways in beta cell replication, beta cell and stem cell regeneration, challenging issues in islet transplantation, islet engraftment, alternate sites of islet transplantation, and immune tolerance. The program will also feature a dinner presentation on the evening of Day 2 and a poster session on Day 3. Young investigators and active researchers are encouraged to submit abstracts on their work for presentation at the poster session. Each abstract will be rated for quality and novelty. Authors of the top abstracts will be awarded a Rachmiel Levine Scientific Achievement Award and will be asked to give an oral presentation. For more information, please visit the conference Web site at www.levinesymposium.com.



PROGRAM OBJECTIVES

- Provide new insight on islet immunity.
- Review updated information on beta cell death.
- Describe new technologies in type 1 diabetes research.
- Provide new insight on systems biology.
- Discuss novel signaling pathways in beta cell replication.
- Describe new advances in beta cell and stem cell regeneration.
- Discuss challenging issues in islet transplantation.
- Provide new insight in islet engraftment.
- Discuss alternate sites of transplantation.
- Review advances and application of immune tolerance.

WHO SHOULD ATTEND

Endocrinologists, diabetologists, islet biologists, stem cell and gene transfer scientists, transplant scientists, immunologists, cell biologists, young investigators in all these areas, and health care professionals who manage patients with diabetes, from both the U.S. and abroad are strongly encouraged to attend.

ACCREDITATION AND CERTIFICATION

Physicians — City of Hope designates this continuing medical education (CME) activity for a maximum of **33 Category 1 credits toward the American Medical Association Physician's Recognition Award**. Each physician should claim only those credits that he/she actually spent in the education activity.

The following may apply CME Category 1 credit for license renewal:

Registered Nurses — Nurses may report up to 33 credit hours toward the continuing education requirements for license renewal by their state Board of Registered Nurses (BRN). CME may be noted on the license renewal application in lieu of a BRN provider number.

Physician's Assistants — The National Commission on Certification of Physician Assistants states that American Medical Association accredited Category 1 courses are acceptable for CME requirements for recertification.

FACULTY DISCLOSURE

This activity has been planned and implemented in strict accordance with the Essential Elements and Policies of the Accreditation Council for Continuing Medical Education.

Prior to their participation in this City of Hope CME activity all faculty/presenters have disclosed any real or apparent vested commercial interest(s) in both those companies whose products may be discussed during the course of the activity and in those companies acting as commercial supporters of the activity. City of Hope further requires that prior to the activity faculty/presenters have disclosed their intention to discuss any off-label and/or investigational (not yet approved for any purpose) use of pharmaceuticals or medical devices. Written disclosure of faculty/presenters' specific commercial relationships and/or intent to discuss "off-label" and investigational use will be provided in the Program and Abstract Book.

SPECIAL ASSISTANCE

In compliance with the *American Disabilities Act*, all reasonable efforts will be made to accommodate persons with disabilities at the symposium. If you have any special dietary or accommodation needs, please contact the program coordinator prior to the symposium. This advance notice will help us serve you better.

CANCELLATION AND REFUND POLICY

All refund requests must be submitted in writing and postmarked no later than **November 30, 2007**. Refund requests postmarked on or before November 30 will receive a registration refund LESS a \$100 processing fee. Refund requests postmarked after November 30, 2007, will not be honored. All refunds will be processed 30 days after the meeting concludes. In the event of unforeseeable circumstances that lead to the cancellation by the conference organizers of the above-mentioned conference, all registration fees would be fully refunded.

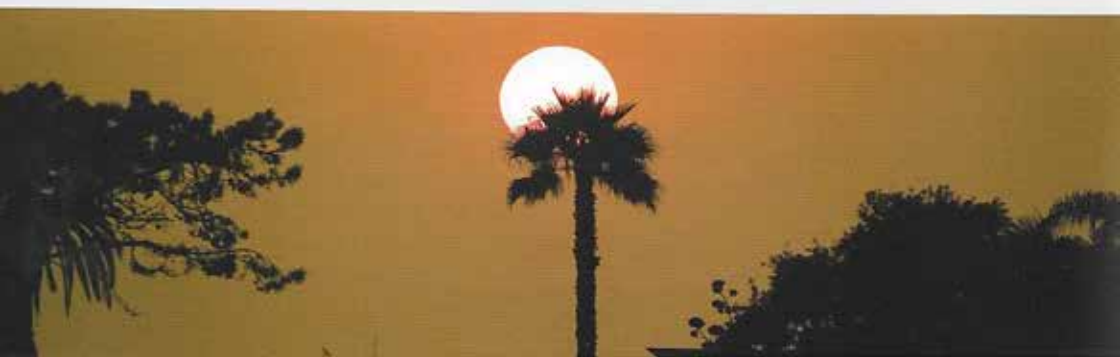
HOTEL AND TRAVEL INFORMATION

Newport Beach Marriott Hotel and Spa
900 Newport Center Drive
Newport Beach, CA 92660
Telephone: 949-640-4000

The Newport Beach Marriott Hotel and Spa is conveniently located near the Fashion Island Shopping Center and Orange County beaches. A room block has been reserved at the hotel with a nightly group rate of **\$184 per night** to Rachmiel Levine Symposium attendees. Early hotel reservation is recommended. To make reservations, contact the hotel and mention that you will be attending the 2008 Rachmiel Levine Symposium to be eligible for the discount room rate. All Levine Symposium participants will also be able to make travel arrangements using City of Hope's corporate discount rate by contacting the Travel Store at 310-752-9148 or by e-mail at alan.h@travelstoreusa.com.

CONFERENCE CONTACT INFORMATION

If you experience any problems or have any questions, please feel free to contact:
Karen Ramos, Program Coordinator
Rachmiel Levine Symposium
City of Hope
Telephone: 800-679-4673
E-mail: levinesymposium@coh.org



SUNDAY, JANUARY 13, 2008

1 p.m.

Registration

1:45 to 3:15 p.m.

Session 1: Islet Immunity

Moderator: Jerry Palmer, M.D., VA Puget Sound Health Care System, Seattle, Wash.

Bioinformatic approaches to type 1 diabetes: Autoantigen discovery

John Hutton, Ph.D., Barbara Davis Center for Childhood Diabetes, Aurora, Colo.

Role of secondary and tertiary lymphoid tissues in the development of IDDM

Yang-xin Fu, M.D., Ph.D., University of Chicago, Chicago, Ill.

CD8 T cells and islet autoimmunity

Teresa DiLorenzo, Ph.D., Albert Einstein College of Medicine, Bronx, N.Y.

3:15 to 4:45 p.m.

Session 2: Beta Cell Death

Moderator: Judith Thomas, Ph.D., University of Alabama, Birmingham, Ala.

Signaling pathways involved in beta cell death

Kathrin Maedler, Ph.D., University of California at Los Angeles, Los Angeles, Calif.

Endoplasmic reticulum stress in beta cells

Decio Eizirik, M.D., Ph.D., Free University Brussels, Brussels, Belgium

Role of mitochondria in autoimmune-mediated destruction of beta cells

Clayton E. Mathews, Ph.D., University of Pittsburgh, Pittsburgh, Pa.

5 to 6:30 p.m.

Session 3: New Technologies in Type 1 Diabetes Research

Moderator: Daniel Salomon, M.D., The Scripps Research Institute, La Jolla, Calif.

Microarray analysis of autoimmunity: Can we learn more?

Virginia Pascual, M.D., Baylor Institute for Immunology Research, Dallas, Texas

Imaging of transplanted islets

Eric Liu, M.D., National Institute of Diabetes and Digestive and Kidney Diseases, Bethesda, Md.

FDG imaging in the peritransplant period: What does it tell us?

Olle Korsgren, M.D., Ph.D., Uppsala University, Uppsala, Sweden

7 p.m.

Welcome Reception and Presentation of Award Winners

MONDAY, JANUARY 14, 2008

- 7:30 a.m.** **Registration**
- 8 a.m.** **Plenary Lecture**
Persistence of C-peptide in type 1 diabetes: What does it mean?
George King, M.D., Joslin Diabetes Center, Boston, Mass.
- 9 to 11 a.m.** **Session 1: Systems Biology**
Moderator: Rama Natarajan, Ph.D., City of Hope, Duarte, Calif.
- MEKK map kinase networks in beta cells**
Gary Johnson, Ph.D., University of North Carolina, Chapel Hill, N.C.
- Role of the alpha cell in regulation of beta cell function**
R. Paul Robertson, M.D., Pacific Northwest Research Institute, Seattle, Wash.
- Role of GABA in regulation of glucagon secretion**
Matthias Braun, Ph.D., Oxford Centre for Diabetes, Endocrinology & Metabolism, Oxford, U.K.
- Genome-wide profiling of histone methylation under diabetic conditions: Epigenomics in diabetes**
Rama Natarajan, Ph.D., City of Hope, Duarte, Calif.
- 11:10 a.m.** **Oral Presentations**
- 12:10 p.m.** **Lunch**
- Special Session**
National Institutes of Health-funded Islet Resources Centers (ICR) program: Update
Joyce Niland, Ph.D., City of Hope, Duarte, Calif.
- National Institutes of Health-funded Collaborative Islet Transplant Registry: Update**
Franca B. Barton, M.S., EMMES Corporation, Rockville, Md.
- Future direction for the National Center for Research Resources-funded ICR program**
Daniel Rosenblum, M.D., National Center for Research Resources, Bethesda, Md.
- Overview of Juvenile Diabetes Research Foundation-funded diabetes research**
Robert Goldstein, M.D., Ph.D., Juvenile Diabetes Research Foundation, New York, N.Y.
- 2 to 4 p.m.** **Session 2: Novel Signaling Pathways in Beta Cell Replication**
Moderator: Andrew Stewart, M.D., University of Pittsburgh, Pittsburgh, Pa.

Mechanisms of protein recruitment to activated insulin receptors
*Stevan Hubbard, Ph.D., Skirball Institute of Biomolecular
Medicine, New York, N.Y.*

PKC-zeta in regulation of beta cell replication
*Adolfo Garcia-Ocaña, Ph.D., University of Pittsburgh,
Pittsburgh, Pa.*

**PI3 kinase, PTEN and PKB/Akt in the control of beta
cell replication**
*Ernesto Bernal-Mizrachi, M.D., Washington University,
St. Louis, Mo.*

**Increased IRS-2 content and activation of IGF-1 pathway
contribute to enhanced beta-cell mass**
*Carmen Álvarez Escolá, M.D., Ciudad Universitaria,
Madrid, Spain*

4:10 to 6:10 p.m. Session 3: Beta Cell and Stem Cell Regeneration
*Moderator: Alex Rabinovitch, M.D., University of Alberta,
Edmonton, Alberta, Canada*

Pancreatic mesenchyme: Does it control beta cell differentiation?
Raphael Scharfmann, Ph.D., INSERM, Paris, France

**Growth and regeneration of adult beta cells: Does it involve
specialized progenitors?**
*Jake Kushner, M.D., Children's Hospital of Philadelphia,
Philadelphia, Pa.*

**Potentials of stem/progenitor cells from bone marrow for the
therapy of diabetes**
*Darwin Prockop, M.D., Ph.D., Tulane University,
New Orleans, La.*

Deriving beta-cells from pancreatic ductal cells
Susan Bonner-Weir, Ph.D., Joslin Diabetes Center, Boston, Mass.

7:15 p.m.

Dinner

Mini-symposium

**Metabolic mechanisms of "rejection" of intraportally
transplanted pancreatic beta-cells in rats: Role of lipotoxicity**
*Roger H. Unger, M.D., University of Texas Southwestern
Medical Center, Dallas, Texas*

Production of synthetic insulin: From Banting and Best to E. coli
*David Harlan, M.D., National Institute of Diabetes and
Digestive and Kidney Diseases, Bethesda, Md.*

Insulin therapy vs. cell therapy
Alvin Powers, M.D., Vanderbilt University, Nashville, Tenn.

TUESDAY, JANUARY 15, 2008

7:30 a.m. **Continental Breakfast**

8 a.m. **Plenary Lecture**

Advances in understanding the molecular control of pancreatic beta cell replication

Andrew Stewart, M.D., University of Pittsburgh, Pittsburgh, Pa.

9 to 11 a.m. **Session 1: Challenging Issues in Islet Transplantation**

Moderator: David Harlan, M.D., National Institute of Diabetes and Digestive and Kidney Diseases, Bethesda, Md.

Instant blood mediated inflammatory reaction: How damaging is it to transplanted islets?

Bo Nilsson, M.D., Ph.D., Uppsala University, Uppsala, Sweden

Tissue engineering and bioartificial organs: Where do they stand?

Anthony Atala, M.D., Wake Forest University, Winston-Salem, N.C.

Can islet regeneration replace or improve on islet transplantation outcomes?

Alex Rabinovitch, M.D., University of Alberta, Edmonton, Alberta, Canada

Therapeutic cloning for treatment of type 1 diabetes: How far is it?

Miodrag Stojkovic, D.V.M., Centro de Investigación Príncipe Felipe, Valencia, Spain

11:10 a.m. **Oral Presentations**

12:10 p.m. **Lunch**

Special Session

Islet cell transplantation initiatives of the National Institute of Diabetes and Digestive and Kidney Diseases

Thomas Eggerman, Ph.D., National Institute of Diabetes and Digestive and Kidney Diseases, Bethesda, Md.

Islet immunology research initiatives of the National Institute of Allergy and Infectious Diseases

John Ridge, Ph.D., National Institute of Allergy and Infectious Diseases, Bethesda, Md.

Licensing trials for islet transplantation

Bruce Schneider, M.D., Food and Drug Administration, Rockville, Md.

American Diabetes Association funded diabetes research programs

Scott Campbell, Ph.D., American Diabetes Association, Alexandria, Va.

2 to 4 p.m.

Session 2: Islet Engraftment

Moderator: Richard Insel, M.D., Juvenile Diabetes Research Foundation, New York, N.Y.

The fate of transplanted human islets exposed to hyperglycaemia
Gordon Weir, M.D., Joslin Diabetes Center, Boston, Mass.

Can graft pretreatment with cytoprotective agents improve islet engraftment?

Fritz Bach, M.D., Beth Israel Deconess Medical Center, Boston, Mass.

Does islet transplantation success depend on the transplantation site?

Per-Ola Carlsson, M.D., Ph.D., Uppsala University, Uppsala, Sweden

Can caspase inhibition enhance marginal islet mass survival in islet transplant recipients?

Juliet Emamaullee, Ph.D., University of Alberta, Edmonton, Alberta, Canada

4:10 to 6:10 p.m.

Session 3: Alternate Sites of Islet Transplantation

Moderator: R. Paul Robertson, M.D., Pacific Northwest Research Institute, Seattle, Wash.

Can nanofibrous scaffold be used to develop an extrahepatic islet transplantation site?

Xiaojun Zhao, Ph.D., Massachusetts Institute of Technology, Cambridge, Mass.

Can transplanting fragments of diabetic pancreas into activated omentum generate new insulin producing cells?

Ashok Singh, Ph.D., Stroger Hospital of Cook County, Chicago, Ill.

Can immune privilege sites be used for islet implantation?

Peter Stock, MD, Ph.D., University of California at San Francisco, San Francisco, Calif.

6:30 p.m.

Poster Session

WEDNESDAY, JANUARY 16, 2008

- 7:30 a.m.** **Registration**
- 8 a.m.** **Plenary Lecture**
New immunomodulatory therapies in type 1 diabetes
Kevan Herold, M.D., Yale University, New Haven, Conn.
- 9 to 11 a.m.** **Session 1: Immune Tolerance - 1**
Moderator: Stephen Forman, M.D., City of Hope, Duarte, Calif.
- Tolerance induction by mixed chimerism**
Megan Sykes, M.D., Massachusetts General Hospital, Boston, Mass.
- Prospect of vaccination to prevent type 1 diabetes**
Leonard Harrison, M.D., Ph.D., Walter & Eliza Hall Institute of Medical Research, Parkville, Victoria, Australia
- GAD clinical trials in type 1 diabetes**
Jerry Palmer, M.D., VA Puget Sound Health Care System, Seattle, Wash.
- Can natural self tolerance mechanisms handle an islet allograft?**
Colin Anderson, Ph.D., University of Alberta, Edmonton, Alberta, Canada
- 11:10 a.m. to 1:10 p.m.** **Session 2: Immune Tolerance - 2**
Moderator: Gordon Weir, M.D., Joslin Diabetes Center, Boston, Mass.
- Hematopoietic stem cell transplantation for type 1 diabetes**
Richard Burt, M.D., Northwestern University, Chicago, Ill.
- Transfusion of autologous chord blood: Immunotherapy for type 1 diabetes**
Michael Haller, M.D., University of Florida, Gainesville, Fla.
- Antigen specific approaches**
Stephen Miller, Ph.D., Northwestern University, Chicago, Ill.
- The role of insulin in immune tolerance to beta cell**
Christian Boitard, M.D., Hôpital Cochin St. Vincent de Paul, Paris, France
- 1:10 p.m.** **Closing Remarks**



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