

Pre-Meeting Workshops

Workshop A – Investment Opportunities in Diabetes Technology

- 08:25 **Panel 1: Introductory Overview**
Nick Pliam, MD, PhD
Bay City Capital, San Francisco, California
John Ryan, MBA
Onset Ventures, Menlo Park, California
- 08:40 **Panel 2: Glucose and Analyte Monitoring**
Noninvasive Glucose Monitoring
Warren Grundfest, MD
University of California, Los Angeles, Los Angeles, California
Glucose and Analyte Monitoring with Respect to Regulatory Issues
Steven Gutman, MD
University of Central Florida, Orlando, Florida
Hospital Diabetes Monitoring and Insulin Delivery
Jeffrey Joseph, DO
Thomas Jefferson University, Philadelphia, Pennsylvania
- 09:45 **Panel 3: Insulin and Metabolic Peptide Delivery**
Benefits and Drawbacks of Insulin Pump Therapy
John Pickup, MD, PhD
Guy's Hospital, London, England
Insulin Pump Therapy in Type 2 Diabetes
Poul Strange, MD, PhD
Phase 1 to 4 LLC, Princeton Junction, New Jersey
Patient Preferences for Insulin Pump Therapy in Type 1 and Type 2 Diabetes
Gloria Yee, RN, CDE
University of California, San Francisco, San Francisco, California
- 10:50 **Break**
- 11:15 **Panel 4: Lifestyle Management**
Food Engineering
Todd Abraham, PhD, MBA
Kraft Foods Inc., Northfield, Illinois
Surgical Technologies for Treating Obesity
William Plovanic, CFA
Canaccord Adams, Chicago, Illinois
The Payer's Perspective on Lifestyle Intervention
Jeff Klonoff, MPH, MBA, CPA, CFP
Hewitt Associates, San Francisco, California
- 12:20 **Conclusion**
- 12:25 **End of Workshop**
- 12:25 **Lunch**

Workshop B – Hemoglobin A1c Laboratory and Clinical Advances

Laboratory and Diagnostic Panel

- 08:25 **Moderator**
Jan Krouwer, PhD
Krouwer Consulting, Sherborn, Massachusetts
- 08:30 **Biologic Variability in Hemoglobin A1c and Its Implications for Estimated Average Glucose and the Diagnosis of Diabetes**
Robert Cohen, MD
University of Cincinnati, Cincinnati, Ohio
- 09:05 **Hemoglobin A1c Standardization: Progress and Current Issues**
Randie Little, PhD
University of Missouri, Columbia Missouri
- 09:25 **Blood Spot Testing for Hemoglobin A1c**
Sanjay Kapur, PhD
ZRT Laboratory, LLC, Beaverton, Oregon
- 09:45 **Is Setting a Target Hemoglobin A1c Treatment Goal of 7% Reasonable?**
Trefor Higgins, MSc, FCACB
DynaLIFE_{dx}, Edmonton, Canada
- 10:00 **Q & A and Panel Discussion**
- 10:20 **Break**
- #### Clinical Panel
- 10:45 **Moderator**
Howard Zisser, MD
Sansum Diabetes Research Institute, Santa Barbara, California
- 10:50 **Toward More Rational Utilization of Hemoglobin A1c**
George Cembrowski, MD, PhD
University of Alberta, Edmonton, Canada
- 11:10 **Point-of-Care Hemoglobin A1c Testing in an Emergency Room Setting**
Michelle Magee, MD, CDE
Georgetown University, Washington, District of Columbia
- 11:30 **Use of 1,5-Anhydroglucitol for Assisting Postprandial Hyperglycemia**
Michael Shanik, MD
Island Endocrinology, PC, Smithtown, New York
- 11:50 **An Alternate Technology for Assessing Mean Glycemia: Dermal Fluorescence**
Marwood Ediger, PhD
VeraLight, Inc., Albuquerque, New Mexico
- 12:05 **Q & A and Panel Discussion**
- 12:25 **End of Workshop**
- 12:25 **Lunch**

Pre-Meeting Workshops

Workshop C – Blood Glucose Monitoring: Decision Support and Data Management

Academic Panel

- 13:25 **Moderators**
 Richard Bergenstal, MD
 International Diabetes Center, Minneapolis, Minnesota
 Stephen Gitelman, MD
 University of California, San Francisco, San Francisco, California
- 13:30 **Developing Clinical Decision Support Systems to Guide Therapy Using Self-Monitoring of Blood Glucose**
 David Rodbard, MD
 Biomedical Informatics Consultants LLC, Potomac, Maryland
- 13:50 **Model-Based Prediction of Blood Glucose for Decision Support in Diabetes: Pros and Cons**
 Ole Hejlesen, PhD, MD
 Aalborg University, Aalborg, Denmark
- 14:10 **A Comparison of Seven-Point Self-Monitoring of Blood Glucose Testing and Continuous Glucose Monitoring**
 Guido Freckmann, MD
 Institute for Diabetes Technology, Ulm, Germany
- 14:30 **The Kaiser Algorithm for Glucose Control**
 Marc Jaffe, MD
 Kaiser South San Francisco Medical Center, South San Francisco, California
- 14:50 **Ambulatory Glucose Profile: A Universal Interactive Report to Facilitate Clinical Decision Making Employing Continuous Glucose Monitoring**
 Roger Mazze, PhD
 International Diabetes Center, Minneapolis, Minnesota

15:05 **Q & A and Panel Discussion**

15:25 **Break**

Industry Panel

- 15:50 **Moderators**
 Richard Bergenstal, MD
 International Diabetes Center, Minneapolis, Minnesota
 Stephen Gitelman, MD
 University of California, San Francisco, San Francisco, California
- 15:55 **Leverage Technologies in Glucose Monitoring: Continuous Glucose Monitoring and Self-Monitoring of Blood Glucose**
 Matthias Axel Schweitzer, MD, MBA
 Roche Diagnostics GmbH, Mannheim, Germany
- 16:15 **Clinical Decision Support to Guide Glucose Management**
 David Price, MD
 LifeScan, Inc., Milpitas, California
- 16:35 **Patient-Guided Insulin Adjustments**
 Israel Hodish, PhD, MD
 Hygiea, Ann Arbor, Michigan
- 16:55 **Innovative Strategies for Inpatient Blood Glucose Data Management**
 Denise Zito, BS, MT(ASCP)SI
 Medical Automation Systems, Inc., Charlottesville, Virginia

17:10 **Q & A and Panel Discussion**

17:30 **End of Workshop**

17:30-20:00 **Reception and Poster Presentation**

20:00-22:00 **Posters Remain on Display for Viewing**

Workshop D – Future Drugs for Diabetes and Obesity

- 13:25 **Moderator**
 Umesh Masharani, MD
 University of California, San Francisco, San Francisco, California
- 13:30 **Current Drugs for Diabetes and What Is Needed in the Future**
 Robert Rushakoff, MD
 University of San Francisco, San Francisco, California
- 13:50 **Alternative Routes of Insulin and Peptide Administration**
 Lutz Heinemann, PhD
 Science & Co., Düsseldorf, Germany
- 14:10 **Future Drugs for Diabetes**
 Alexander Fleming, MD
 Kinexum, Harpers Ferry, West Virginia
- 14:30 **Future Drugs for Obesity**
 Frank Greenway, MD, FACP
 Louisiana State University, Baton Rouge, Louisiana
- 14:45 **Q & A and Panel Discussion**
- 15:10 **Break**
- 15:35 **Moderators**
 Robert Burk, MD
 Albert Einstein College of Medicine, Bronx, New York
 Gerald Sydorak, MD
 Burlingame, California
- 15:55 **Drug Development Technology**
 Jeffrey Trimmer, PhD
 Entelos, Inc., Foster City, California
- 16:15 **Challenges in Conducting Clinical Trials of New Diabetes Drugs**
 Wayman Wendell Cheatham, MD, FACP
 U.S., Navy, Washington, District of Columbia
- 16:35 **Conducting Diabetes Drug Clinical Trials: Regulatory Aspects**
 Carl Anderson
 Tacoma, Washington
- 16:55 **Will Bariatric Surgery Replace Drugs for Type 2 Diabetes?**
 Albert Wetter, MD
 Mills-Peninsula Health Services, Burlingame, California
- 17:10 **Q & A and Panel Discussion**
- 17:30 **End of Workshop**
- 17:30-20:00 **Reception and Poster Presentation**
- 20:00-22:00 **Posters Remain on Display for Viewing**

AGENDA

Friday, November 6, 2009

Ninth Annual Diabetes Technology Meeting

07:00 Continental Breakfast

Session I: Technologies for Metabolic Monitoring

08:00 **Welcoming Remarks**

Carol Herman, RN
Center for Devices and Radiological Health, Food and Drug Administration, Silver Spring, Maryland

08:05 **Introduction**

David Klonoff, MD, FACP
Mills-Peninsula Health Services, San Mateo, California;
University of California, San Francisco, San Francisco, California

08:10 **Moderator**

COL Karl Friedl, PhD
U.S. Army, TATRC, Frederick, Maryland

08:15 **Keynote Address: Diabetes in the 21st Century**

Alfred Mann, MS
MannKind Corporation, Valencia, California

08:35 **Tattoo Technology for Managing Glucose**

Heather Clark, PhD
Draper Laboratory, Cambridge, Massachusetts

08:55 **Raman Spectroscopy for Noninvasive Glucose Monitoring**

Jan Lipson, PhD
C8 MediSensors, Inc., Los Gatos, California

09:15 **First Report of the Accuracy of Continuous Glucose Monitoring Using Glucose Binding Protein (GBP)**

Kevin Judge, MD
BD Technologies, Research Triangle Park, North Carolina

09:35 **Sensor-Augmented Pump Therapy: Results of a Recently Completed Trial**

Thomas Pieber, MD
Medical University of Graz, Graz, Austria

09:50 **Q & A and Panel Discussion**

10:10 **Break**

Session II: Biomarkers for Type 2 Diabetes

10:35 **Moderator**

Lt. COL Mark True, MD, FACP, FACE
Lackland Air Force Base, San Antonio, Texas

10:40 **Regulatory Aspects of Developing Biomarkers for Type 2 Diabetes**

Wendy Sanhai, PhD
U.S. Food and Drug Administration, Rockville, Maryland

11:00 **Circulating Serum Protein Markers of Type 2 Diabetes**

Andreas Pfützner, MD, PhD
IKFE Institute for Clinical Research, Mainz, Germany

11:20 **A Multimarker Model for Assessing Risk of Type 2 Diabetes**

Michael McKenna, PhD
Tethys Bioscience, Inc., Emeryville, California

11:40 **Exercise Performance Biomarkers**

Kong Chen, PhD
National Institutes of Health, Bethesda, Maryland

11:55 **Q & A and Panel Discussion**

12:20 **End of Session**

12:20 **Lunch**

Session III: Artificial Pancreas—Continuing Glucose Monitoring Alarms

13:30 **Moderators**

Jeffrey Joseph, DO
Thomas Jefferson University, Philadelphia, Pennsylvania
Marc Torjman, PhD
University of Medicine and Dentistry, Camden, New Jersey

13:35 **Artificial Pancreas Research Award**

13:40 **Alarm Characterization and Accuracy Criteria for a Continuous Glucose Monitor That Could Replace Self-Monitoring of Blood Glucose Testing**

Geoffrey McGarraugh, MS
Abbott Diabetes Care, Alameda, California

14:00 **Real-Time Continuous Glucose Monitoring Alarms and Considerations for Patients**

John Mastrototaro, PhD
Medtronic Diabetes, Northridge, California

14:20 **Analytical Methods for Assessment of the Efficacy of Alerts and Alarms of Continuous Glucose Sensors**

Jim Brauker, PhD
Dexcom, San Diego, California

14:40 **Accuracy of Continuous Glucose Monitoring Alarms and Its Relationship to the Effectiveness of Open- and Closed-Loop Control**

Boris Kovatchev, PhD
University of Virginia, Charlottesville, Virginia

15:00 **Overnight Closed-Loop Insulin Delivery**

Roman Hovorka, PhD
University of Cambridge, Cambridge, England

15:15 **Q & A and Panel Discussion**

15:40 **Break**

Session IV: Artificial Pancreas—The Food and Drug Administration's Point of View

16:05 **Moderators**

Jeffrey Joseph, DO
Thomas Jefferson University, Philadelphia, Pennsylvania
Marc Torjman, PhD
University of Medicine and Dentistry of New Jersey, Camden, New Jersey

16:10 **Panel Members**

Patricia Beaston, MD
U.S. Food and Drug Administration, Silver Spring, Maryland
Arleen Pinkos, BS
U.S. Food and Drug Administration, Silver Spring, Maryland
Joy Samuels-Reid, MD
U.S. Food and Drug Administration, Silver Spring, Maryland
Charles Zimlik, PhD
U.S. Food and Drug Administration, Silver Spring, Maryland

17:30 **End of Session**

17:30-20:00 **Reception and Poster Presentation**

20:00-22:00 **Posters Remain on Display for Viewing**

Ninth Annual Diabetes Technology Meeting

07:00 Continental Breakfast

Session V: Alternate Delivery Routes for Insulin and Metabolic Peptides

08:00 **Diabetes Technology Leadership Award**
David Klonoff, MD, FACP
Mills-Peninsula Health Services, San Mateo, California;
University of California, San Francisco, San Francisco, California

08:05 **Moderators**
Gerold Grodsky, PhD
University of California, San Francisco, San Francisco, California
Athanasios Sambanis, PhD
Georgia Institute of Technology, Atlanta, Georgia

08:10 **Fulfilling the Promise of Diabetes Technology: From Pumps to an Artificial Pancreas**
William Tamborlane, MD
Yale University, New Haven, Connecticut

08:30 **When to Add Insulin in Type 2 Diabetes Patients Who Are Failing Oral Agents and/or Glucagon-Like Peptide-1 Therapy**
Janet McGill, MD
Washington University, St. Louis, Missouri

08:50 **Insulin Delivery Technology: Injection Techniques and Needle Lengths**
Paul Hofman, MD
University of Auckland, Auckland, New Zealand

09:10 **Closed-Loop Glycemic Control: The Importance of Insulin Kinetics**
Kenneth Ward, MD
Oregon Health Services University, Portland, Oregon

09:30 **The Technology and Clinical Aspects of Nasal Insulin Therapy**
Lance Berman, MD
CPEX Pharmaceuticals, Inc., Exeter, New Hampshire

09:50 **IN-105: A Novel Insulin Analogue**
Anand Khedkar, MSc (Tech)
Biocon Limited, Bangalore, India

10:05 Q & A and Panel Discussion

10:30 Break

Session VI: Diabetes Telemedicine

11:10 **Moderators**
Riccardo Bellazzi, PhD
University of Pavia, Italy
Jan Wojcicki, PhD, DSc
Institute of Biocybernetics, Warsaw, Poland

11:15 **Telemedicine Support for Real-Time Continuous Glucose Monitoring**
Mercedes Rigla, MD, PhD
Hospital de Sabadell, Barcelona, Spain

11:35 **A Diabetes Telemedicine System with Decision Support: Two-Year Update**
Eckhard Salzsieder, PhD
Institute for Diabetes, Karlsburg, Germany

11:55 **Peterson Student Award and Winner Presentation**

12:15 Q & A and Panel Discussion

12:30 End of Session

12:30 Lunch

Session VII: Hospital Technology

13:30 **Moderators**
Dorian Liepmann, PhD
University of California, Berkeley, Berkeley, California
Ann Sheehy, MD
University of Wisconsin, Madison, Wisconsin

13:35 **Clinical Aspects of Tight Insulin Control in the Hospital**
Douglas Coursin, MD
University of Wisconsin, Madison, Wisconsin

13:55 **How Glucose Should be Measured in the Intensive Care Unit**
Martin Ellmerer, PhD
Medical University Graz, Graz, Austria

14:15 **A Novel Fluorescent Intravascular Sensor for Continuous Glucose Monitoring in the Intensive Care Unit**
Thomas Peyser, PhD
Glumetrics, Irvine, California

14:30 Q & A and Panel Discussion

14:50 Break

Session VIII: Technologies for Improving Adherence to Therapy

15:15 **Moderator**
John Pickup, MD, PhD
Guy's Hospital, London, England

15:20 **Technology and Adherence: What Is the Link?**
Robert Gabbay, MD, PhD
Pennsylvania State University, Hershey, Pennsylvania

15:40 **Efficacy of Continuous Glucose Monitoring in Patients with Type 2 Diabetes Mellitus**
Robert Vigersky, MD
Walter Reed Army Medical Center, Washington, District of Columbia

16:00 **Panel Discussion: A Challenge to Industry—What Technology Do We Need for Improving Adherence and Outcomes?**
Daniel Crowe, MD
Southborough Medical Group, Southborough, Massachusetts

Neesha Ramchandani, PNP, CDE
Maimonides Medical Center, Brooklyn, New York
Brian Hipszer, PhD
Thomas Jefferson University, Philadelphia, Pennsylvania
Amy Tenderich, MA
Diabetes Mine, San Francisco, California

17:00 End of Session

Session IX: Live Demonstration

17:05 **Moderator**
John Pickup, MD, PhD
Guy's Hospital, London, England

17:10 **Live Demonstration of the U.S. Army Warfighter Physiological Status Monitor**
Mark Buller, MS
U.S. Army, Research Institute of Environmental Medicine, Natick, Massachusetts

17:30 End of Meeting