#### THURSDAY, OCTOBER 27, 2011

#### Workshop A: Investment Opportunities in Diabetes Technology

08:00 **Moderators:** John Ryan, MBA Onset Ventures, Menlo Park, California

> Ross Jaffe, MD Versant Ventures, Menlo Park, California

#### Panel 1: Insulin Delivery Technology

- 08:10 Investment Opportunities in Insulin Delivery Barry Ginsberg, MD, PhD Diabetes Technology Consultants, Wyckoff, New Jersey
- 08:20 **Today's Insulin Pumps–Tomorrow's Artificial Pancreas** John Walsh, PA, CDE Advanced Metabolic Care + Research, Escondido, California
- 08:30 Insulin Pump Investing: Opportunities and Lessons Learned Dan Galles, MBA HLM Venture Partners, San Francisco, California
- 08:40 Panel Discussion

#### Panel 2: Obesity Technology

- 09:05 **Medical Therapy for Obesity** Marc Reitman, MD, PhD National Institutes of Health, Bethesda, Maryland
- 09:15 Surgery to Treat Type 2 Diabetes and Morbid Obesity L. Albert Wetter, MD Mills-Peninsula Medical Center, Burlingame, California
- 09:25 Investment Opportunities in Obesity Technology Corey Mulloy, MBA Highland Capital Partners, Menlo Park, California
- 09:35 Panel Discussion
- 10:00 Break

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#### **Panel 3: Social Media**

10:25	<b>Medicine and the New Media</b> David Kerr, MD, FRCPE Bournemouth Diabetes and Endocrine Centre, Bournemouth, England
10:35	<b>The Consumer Health Revolution</b> John de Souza, MBA, MS MedHelp, San Francisco, California
10:45	<b>Social Media and Diabetes</b> Ross Jaffe, MD Versant Ventures, Menlo Park, California
10:55	Panel Discussion
11:30	End of workshop/lunch

# Workshop B: Implanted Sensors — Physiological Considerations

#### **Academic Panel**

08:00	Moderators: Natalie Wisniewski, PhD Medical Device Consultancy, San Francisco, California
	Fotios Papadimitrakopoulos, PhD University of Connecticut, Storrs, Connecticut
08:05	<b>Microcirculatory Considerations in Glucose Monitoring: Impact of Stem Cell Modification</b> Bruce Klitzman, PhD Duke University, Durham, North Carolina
08:20	<b>Design Constraints for Sensor Engineers: Understanding the</b> <i>In Vivo</i> Environment Natalie Wisniewski, PhD Medical Device Consultancy, San Francisco, California
08:35	Effect of Diabetes on the Skin Blood Flow Response to Environment 3 Jerrold Petrofsky, PhD Loma Linda University, Loma Linda, California
08:50	Effects of Implantation on Glucose Sensor Performance Jeffrey Joseph, DO Thomas Jefferson University, Philadelphia, Pennsylvania
09:05	Panel Discussion
09:35	Break

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#### **Industry Panel**

10:00	<b>Moderators:</b> Gerold Grodsky, PhD University of California, San Francisco, San Francisco, California
	Julia Mader, MD Medical University of Graz, Graz, Austria
10:05	<b>The Impact of Physiological Time Lag on Continuous Glucose Monitoring Devices</b> D. Barry Keenan, PhD Medtronic Diabetes, Northridge, California
10:17	Insights into Interstitial Fluid Glucose from Five Generations of DexCom Continuous Glucose Monitoring Systems Thomas Peyser, PhD DexCom Inc., San Diego, California
10:29	Implantable Radio-Frequency-Powered Fluorescence-Based Glucose Sensor Todd Whitehurst, MD Sensors for Medicine and Science, Inc., Germantown, Maryland
10:41	Subcutaneously Implanted Glucose Sensors: Requirements and Challenges for Performance in the Interstitial Fluid Compartment Francesco Valgimigli, PhD A. Menarini Diagnostics, Florence, Italy
10:53	Panel Discussion
11:30	End of workshop/lunch

## Workshop C: New Developments in Self-Monitoring of Blood Glucose

#### **Academic Panel**

12:30	<b>Moderators:</b> Koji Sode, PhD Tokyo University of Agriculture and Technology, Tokyo, Japan
	Darrell Wilson, PhD Stanford University, Stanford, California
12:35	Fluorescence Lifetime-Based Glucose Sensing with a Glucose/Galactose-Binding Protein John Pickup, MD, PhD King's College London School of Medicine, London, England
12:50	<b>Determining Blood Glucose Meter Accuracy</b> James Nichols, PhD, DABCC, FACB Baystate Health, Springfield, Massachusetts

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- 13:05 **Food and Drug Administration Perspectives for Self-Monitoring of Blood Glucose** Courtney Harper, PhD U.S. Food and Drug Administration, Silver Spring, Maryland
- 13:20 Role of Self-Monitoring of Blood Glucose in Non-Insulin-Treated Type 2 Diabetes David Klonoff, MD, FACP Mills-Peninsula Health Services, San Mateo, California University of California, San Francisco, San Francisco, California
- 13:35 Panel Discussion
- 14:15 Break

#### **Industry Panel**

- 14:40 **Moderators:** Kari Nerhus, MS University of Bergen, Bergen, Norway
  - W. Kenneth Ward, MD Oregon Health and Science University, Portland, Oregon
- 14:45 Self-Monitoring of Blood Glucose is a Medically Meaningful Intervention Matthias Axel Schweitzer, MD, MBA Roche Diagnostics GmbH, Mannheim, Germany
- 14:57 Clinical Characterization of a Novel, High Performance System for Self-Monitoring of Blood Glucose David Simmons, MD Bayer HealthCare LLC, Tarrytown, New York
- 15:09 **Pattern Recognition: Enabling Insight and Action through Blood Glucose Monitoring** Praveen Raja, PhD LifeScan, Inc., Milpitas, California
- 15:21 Self-Powered Sensors for Extended Continuous Glucose Measurements Ben Feldman, PhD Abbott Diabetes Care, Alameda, California
- 15:33 Panel Discussion
- 16:00 End of workshop
- 16:05–18:30 **Poster Session**
- 18:30–20:00 Posters remain on display for viewing

### THURSDAY, OCTOBER 27, 2011

### Workshop D: Diabetes Technology in the Hospital

#### **Strategies and Continuous Glucose Monitoring Panel**

12:30	<b>Moderators:</b> Guillermo Arreaza-Rubín, MD National Institutes of Health, Bethesda, Maryland	Boris Draznin, MD, PhD University of Colorado, Aurora, Colorado
12:35	<b>Glycemic Control in the Intensive Care Unit</b> Michael Gropper, MD, PhD, FCCP University of California, San Francisco, San Francisco	o, California
12:50	<b>Transitioning Care from the Intensive Care Unit to</b> Umesh Masharani, MD University of California, San Francisco, San Francisco	
13:05	Accuracy and Reliability of Continuous Glucose I Ulrike Holzinger, MD Medical University of Vienna, Vienna, Austria	Monitoring in Critically III Adult Patients
13:20	Inpatient Continuous Glucose Monitoring for Chil Michael Agus, MD Children's Hospital Boston, Boston, Massachusetts	dren
13:35	Panel Discussion	
14:05	Break	
Software and Pump Therapy Panel		
14:30	<b>Moderators:</b> Klaus Levin, MD, PhD Odense University Hospital, Svendborg, Denmark	Robert Tanenberg, MD East Carolina University, Greenville, North Carolina

- 14:35 Software for Managing Diabetes in the Hospital Robert Rushakoff, MD University of California, San Francisco, San Francisco, California
  14:50 The GlucoCare Intensive Glycemic Control System: A Software-Based Decision Support System Designed to Enhance Clinical Trials in Intensive Glycemic Control
- Designed to Enhance Clinical Trials in Intensive Glycemic Control Michael Marvin, MD, FACS Pronia Medical Systems LLC, Louisville, Kentucky
- 15:05 Data Management in Hospitalized Diabetes Patients: Innovative Monitoring Solutions Denise Zito, BS, MT(ASCP)SI Medical Automation Systems, Inc., Charlottesville, Virginia
- 15:20 Applications of Continuous Subcutaneous Insulin Infusion in Nontraditional Settings: Review of Inpatient and Surgical Data Curtiss Cook, MD, FACP Mayo Clinic, Scottsdale, Arizona
- 15:35 Panel Discussion
- 16:00 End of workshop
- 16:05–18.30 **Poster Session**
- 18:30–20:00 **Posters remain on display for viewing**

# FRIDAY, OCTOBER 28, 2011

## Session I: Information Techonology

08:00	<b>Introduction</b> Eric Sampson, PhD Centers for Disease Control, Atlanta, Georgia
08:05	<b>Moderators:</b> Charles Peterson, MD U.S. Army, Telemedicine and Advanced Technology Research Center, Fort Detrick, Maryland
	Jan Wojcicki, PhD, DSc Institute of Biocybernetics, Warsaw, Poland
08:10	How Can Clinical Data Repositories in Health Care Information Exchange Solutions Support Managing and Improving Diabetes Care? John Hatem, MSN, RN Oracle, Redwood City, California
08:25	Diabetes Care Management and the Cloud: What's Taking So Long? Zach Little, BS Microsoft, Seattle, Washington
08:40	<b>Care Innovations Guide Engages and Empowers Patients</b> Marcus Grindstaff, BS Intel-GE Care Innovations, Roseville, California
08:55	Panel Discussion
09:30	End of session/Break

### Session II: Decision Support Software

09:50	Moderators: Carol Herman, RN U.S. Food and Drug Administration, Silver Spring, Maryland
	Elena Hernando Pérez, PhD Universidad Politécnica de Madrid, Madrid, Spain
09:55	Diabetes Technology Society Leadership Award
10:00	Food and Drug Administration: An Office of <i>in Vitro</i> Diagnostic Device Evaluation and Safety Perspective Courtney Harper, PhD U.S. Food and Drug Administration, Silver Spring, Maryland
10:15	Hospital Devices: A Food and Drug Administration Perspective on Insulin Dose Calculators Charles Zimliki, PhD U.S. Food and Drug Administration, Silver Spring, Maryland
10:30	A Clinical Perspective of Decision Support Software Embedded into Insulin Pumps Bruce Bode, MD, FACE Atlanta Diabetes Associates, Atlanta, Georgia
10:45	Interim Safety Results and Experiences from Clinical Use of the Glucosafe System in the Intensive Care Unit Ulrike Pielmeier, PhD Aalborg University, Aalborg, Denmark

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- 11:00 Panel Discussion
- 11:30 End of session/Lunch

### Session III: Artificial Pancreas: Scientific

12:30	<b>Moderator:</b> Jeffrey Joseph, DO Thomas Jefferson University, Philadelphia, Pennsylvania
12:35	Artificial Pancreas Award
12:40	<b>Food and Drug Administration Guidance on Artificial Pancreas Systems</b> Charles Zimliki, PhD U.S. Food and Drug Administration, Silver Spring, Maryland
12:55	AP@home: Will We Bring the Artificial Pancreas Home? Lutz Heinemann, PhD Profil Institute for Metabolic Research, Neuss, Germany
13:10	<b>Model Predictive Control for Closed-Loop Insulin Delivery</b> Roman Hovorka, PhD University of Cambridge, Cambridge, England
13:25	Proportional-Integral-Derivative Approach versus Model Predictive Control: The Case for Proportional Integral Derivative Garry Steil, PhD Children's Hospital Boston, Boston, Massachusetts
13:40	Panel Discussion
14:20	End of session/Break

### Session IV: Artificial Pancreas: Clinical

14:45	<b>Moderator:</b> J. Geoffrey Chase, PhD University of Canterbury, Christchurch, New Zealand
14:50	Artificial Pancreas: Clinical Approaches Bruce Buckingham, MD Stanford University, Stanford, California
15:05	<b>Artificial Pancreas: Clinical Approaches</b> Howard Zisser, MD Sansum Diabetes Research Institute, Santa Barbara, California
15:20	Artificial Pancreas: Technology and Clinical Trials Boris Kovatchev, PhD University of Virginia, Charlottesville, Virginia
15:35	Panel Discussion
16:00	Adjourn
16:05-18:30	Poster Session
18:30-20:00	Posters remain on display for viewing

## SATURDAY, OCTOBER 29, 2011

### Session V: Technologies for Metabolic Monitoring

08:00	<b>Moderators:</b> Dorian Liepmann, PhD University of California, Berkeley, Berkeley, California
	Athanassios Sambanis, PhD Georgia Institute of Technology, Atlanta, Georgia
08:05	<b>Exhaled Gas Analysis as a Novel Technology for Metabolic Monitoring in Diabetes</b> Pietro Galassetti, MD, PhD University of California, Irvine, Irvine, California
08:20	<b>An Engineered Alternative Design to Self-Monitoring Blood Glucose</b> Jeffrey LaBelle, PhD Arizona State University, Tempe, Arizona
08:35	<b>New Technologies for Improved Performance in Blood Glucose Monitoring</b> Richard Stadterman, MA, MBA Bayer HealthCare LLC, Tarrytown, New York
08:50	Performance of Wearable Raman Spectrometer for Noninvasive Glucose Measurement Rudy Hofmeister, PhD C8 MediSensors, San Jose, California
09:05	Panel Discussion

09:30 End of Session/Break

## **Session VI: Hypoglycemia Detection**

10:05	Moderators: B. Wayne Bequette, PhD Rensselaer Polytechnic Institute, Troy, New York
	Lutz Heinemann, PhD Profil Institute for Metabolic Research, Neuss, Germany
10:10	Veo: A Sensor-Augmented Pump with Low Glucose Suspend Francine Kaufman, MD Medtronic Diabetes, Northridge, California
10:25	The Brain is a Biosensor for Hypoglycemia Henning Beck-Nielsen, MD, DMSc Odense University Hospital, Odense, Denmark
10:40	Juvenile Diabetes Research Foundation (JDRF) Student Research Award
10:45	Presentation by JDRF Student Research Award Winner
11:00	Panel Discussion
11:30	End of session/Lunch

## SATURDAY, OCTOBER 29, 2011

# Session VII: New Insulins and Insulin Delivery Methods

12:30	Moderators: Michael Weiss, MD, PhD
	Case Western Reserve University School of Medicine, Cleveland, Ohio
	Howard Zisser, MD Sansum Diabetes Research Institute, Santa Barbara, California
12:35	Features of Insulin Pens from an Engineering and Consumer Perspective Andreas Pfützner, MD, PhD IKFE GmbH, Mainz, Germany
12:50	What's Hot: Accelerating Insulin Absorption and Action by Infusion Site Warming William Tamborlane, MD Yale University School of Medicine, New Haven, Connecticut
13:05	<b>Transdermal Delivery of Insulin and Exenatide</b> Alan Smith, PhD Altea Therapeutics, Atlanta, Georgia
13:20	High-Affinity Partial Agonist Insulin Receptor Antibodies Stimulate Insulin Activity and Improve Glycemic Control Patrick Scannon, MD, PhD XOMA, Berkeley, California
13:35	<b>Technosphere Insulin: Development of a Second Generation Inhaler and Titration Optimization</b> Robert Baughman, PharmD, PhD MannKind Corp., Valencia, California
13:50	Panel Discussion
14:15	Break

### **Session VIII: Live Demonstration**

14:40	<b>Moderator:</b> John Pickup, MD, PhD King's College London School of Medicine, London, England	
14:45	<b>Detecting Excessive Glycemic Variability</b> Cynthia Marling, PhD Ohio University, Athens, Ohio	Frank Schwartz, MD, FACE Ohio University, Athens, Ohio
15:00	Real-Time and Ongoing Blood Glucose Management System Dov Moran, BS Technion Israel Institute of Technology, Haifa, Israel	
15:15	<b>The Diabetes Assistant: A Portable Artificial Pancreas System Based on an Android Cell Phone</b> Patrick Keith-Hynes, PhD University of Virginia, Charlottesville, Virginia	
15:30	The Portable Glucose Control System: Towards an Automated, Closed-Loop Control System Michael Kremliovsky, PhD Medtronic Diabetes, Northridge, California	
15:45	Panel Discussion	
16:00	End of meeting	