

Agenda • Thursday, October 25, 2007

Pre-Meeting Workshops

Workshop A – Investment Opportunities in Diabetes Technologies

- 08:25 Panel 1: Diabetes: An Investor's Perspective**
Bernard Harris, Jr., M.D., M.B.A., FACP (Vesalius Ventures, Houston, Texas and former U.S. Astronaut)
- 08:55 Panel 2: Devices for Measuring Glucose and Delivering Insulin**
Bernard Harris, Jr., M.D., M.B.A., FACP (Vesalius Ventures, Houston, Texas and former U.S. Astronaut), Moderator
Lutz Heinemann, Ph.D. (Profil Institute for Metabolic Research, Neuss, Germany)
Poul Strange, M.D., Ph.D. (Glucose Harmonics LLC, Princeton Junction, New Jersey)
Howard Wolpert, M.D. (Joslin Diabetes Center, Harvard University, Boston, Massachusetts)
- 09:50 Panel 3: Drugs for Diabetes and Obesity**
Bernard Harris, Jr., M.D., M.B.A., FACP (Vesalius Ventures, Houston, Texas and former U.S. Astronaut), Moderator
Ira Goldfine, M.D. (University of California, San Francisco, California)
Frank Greenway, M.D. (Pennington Biomedical Research Center, Louisiana State University, Baton Rouge, Louisiana)
G. Alexander Fleming, M.D. (Kinexum LLC, Harpers Ferry, West Virginia and former Clinical Group Leader, Division of Metabolic and Endocrine Drug Products, FDA Center for Drug Evaluation and Research)
- 10:45 Break**
- 11:10 Panel 4: Current Opportunities for Investing in Diabetes Technology**
Bernard Harris, Jr., M.D., M.B.A., FACP (Vesalius Ventures, Houston, Texas and former U.S. Astronaut), Moderator
Brian Brandell, Ph.D. (William Blair & Company, Chicago, Illinois)
Chris Searcy, Pharm.D., M.B.A. (Nektar Therapeutics, San Carlos, California)
Tony Thomas, M.B.A. (SYNCOM, Silver Spring, Maryland)
- 12:30 End of Workshop**

Workshop B – Noninvasive Glucose Monitoring

Academic Panel

- 08:25 Moderators**
Mark Arnold, Ph.D. (University of Iowa, Iowa City, Iowa)
Michael Feld, Ph.D. (MIT, Cambridge, Massachusetts)
John Pickup, M.D., Ph.D. (Guy's Hospital, London, England)
- 08:40 Advances in Optical Polarimetry for Noninvasive Glucose Sensing**
Brent Cameron, Ph.D. (University of Toledo, Toledo, Ohio)
- 09:00 Noninvasive Glucose Monitoring with Optical Coherence Tomography**
Rinat Esenaliev, Ph.D. (University of Texas, Galveston, Texas)
- 09:20 NIR Spectroscopy**
Mark Arnold, Ph.D. (University of Iowa, Iowa City, Iowa)
- 09:40 Quantitative Biological Raman Spectroscopy**
Michael Feld, Ph.D. (MIT, Cambridge, Massachusetts)
- 10:00 Q & A and Panel Discussion**
- 10:15 Break**

Industry Panel

- 10:40 Moderators**
Mark Arnold, Ph.D. (University of Iowa, Iowa City, Iowa)
Michael Feld, Ph.D. (MIT, Cambridge, Massachusetts)
John Pickup, M.D., Ph.D. (Guy's Hospital, London, England)

- 10:55 A Framework for the Resolution of Key Problems in Noninvasive Glucose Monitoring**
Jan Lipson, Ph.D. (C8 MediSensors, Cupertino, California)
- 11:15 Noninvasive Continuous Glucose Monitoring Based on Occlusion Spectroscopy**
Orna Amir, Ph.D. (OrSense Ltd., Nes Ziona, Israel)
- 11:35 How to Use Skin Autofluorescence in Diabetes Care as Predictor of Complications**
Andries Smit, M.D., Ph.D. (University Medical Center Groningen, Groningen, Netherlands)
- 11:55 Noninvasive AGE Measurement for Diabetes Screening: Superior Performance of SAGE Technology to Fasting Plasma Glucose**
Marwood Ediger, Ph.D. (VeraLight, Albuquerque, New Mexico)
- 12:15 Q & A and Panel Discussion**
- 12:30 End of Workshop**

Workshop C – Glycemic Variability

Academic Panel

- 13:30 Moderator**
Guillermo Arreaza-Rubin, M.D. (National Institutes of Health, Bethesda, Maryland)
- 13:35 Keynote Address—Glycemic Variability: The Third Component of the Dysglycemia in Diabetes. Is It Important? How to Measure It?**
Louis Monnier, M.D. (Hospital Lapeyronie, Montpellier, France)
- 14:05 The Impact of HbA1c and Other Indices of Glycemia on the Risk of Microvascular Complications in the Diabetes Control and Complications Trial and The Epidemiology of Diabetes Interventions and Its Complications (DCCT/EDIC) Study**
John Lachin, Sc.D. (George Washington University, Rockville, Maryland)
- 14:35 Chronic Glycemic Exposure and Complications**
Peter Dyck, M.D. (Mayo Clinic, Rochester, Minnesota)
- 15:05 Mathematical Methods for Expressing and Quantifying Glycemic Variability**
Boris Kovatchev, Ph.D. (University of Virginia, Charlottesville, Virginia)
- 15:35 Q & A and Panel Discussion**
- 16:00 Break**

Industry Panel

- 16:25 Moderator**
Thomas Pieber, M.D. (Karl-Franzens University, Graz, Austria)
- 16:30 Glucose Excursions in Patients with IGT**
David Price, M.D. (LifeScan, Inc., Milpitas, California)
- 16:40 Diabetes Management and Glycemic Variability: The Contribution of Medical Devices**
Matthias Axel Schweitzer, M.D., M.B.A. (Roche Diagnostics, Mannheim, Germany)
- 16:50 The Use of CGM for Determining Glycemic Variability**
Rajiv Shah, M.S. (Medtronic Diabetes, Northridge, California)
- 17:00 Scoring Approaches to Assess Glycemic Variability**
Joe Bugler, M.Sc. (Abbott Diabetes Care, Alameda, California)
- 17:10 Glycemic Variability: Improving Outcomes for the Person with Diabetes**
David Simmons, M.D. (Bayer HealthCare, Diabetes Care, Tarrytown, New York)
- 17:20 Q & A and Panel Discussion**
- 17:35 End of Workshop**

Thursday, October 25, 2007 *continued*

Workshop D – Hospital Management of Diabetes

- 13:30 Moderator**
Susan Braithwaite, M.D. (University of North Carolina, Chapel Hill, North Carolina)
- 13:35 Keynote Address—Benefits and Risks of Tight Glucose Control in Critically Ill Patients**
Jean-Charles Preiser, M.D., Ph.D. (Domaine Universitaire du Sart Tilman, Liege, Belgium)
- 14:00 Technology for Achieving Intensive Insulin Therapy in the Intensive Care Unit**
Martin Ellmerer, Ph.D. (Medical University of Graz, Graz, Austria)
- 14:20 Algorithms for Insulin Dosing**
Susan Braithwaite, M.D. (University of North Carolina, Chapel Hill, North Carolina)
- 14:40 Technology for Managing Hospitalized Children with Diabetes**
Michael Agus, M.D. (Harvard University, Boston, Massachusetts)
- 15:00 Management of Adult Inpatients with Diabetes on the Hospital Wards**
Umesh Masharani, M.D. (University of California, San Francisco, California)
- 15:20 Q & A and Panel Discussion**
- 15:35 Break**
- 16:00 Moderator**
Gerald Kost, M.D., Ph.D. (University of California, Davis, California)
- 16:05 Assessing and Improving the Accuracy of Hospital Point-of-Care Glucose Testing**
Gerald Kost, M.D., Ph.D. (University of California, Davis, California)
- 16:25 Islet Cell Transplantation: A Cure for Type 1 Diabetes?**
Peter Stock, M.D., Ph.D. (University of California, San Francisco, California)
- 16:45 Bariatric Surgery: A Cure for Type 2 Diabetes?**
Alberto Wetter, M.D. (Mills-Peninsula Health Services, Burlingame, California)
- 17:05 Discharge Medications for Diabetes Following Hospitalization**
Robert Rushakoff, M.D. (University of California, San Francisco, California)
- 17:25 Q & A and Panel Discussion**
- 17:35 End of Workshop**

Seventh Annual Diabetes Technology Meeting

- 07:00-18:00 Registration**
- 18:00 Meeting Commences**
- 18:00-20:00 Reception and Poster Presentations**
- 20:00-22:00 Posters Remain on Display for Viewing**

Agenda • Friday, October 26, 2007

Seventh Annual Diabetes Technology Meeting

07:00 **Continental Breakfast**

Session I – Technologies for Metabolic Monitoring

08:00 **Welcoming Remarks**

Dorian Liepmann, Ph.D. (University of California, Berkeley, California)

08:05 **Introduction**

David Klonoff, M.D., FACP (Mills-Peninsula Health Services, San Mateo; University of California, San Francisco, California)

08:07 **Moderator**

COL Carl Castro, Ph.D. (U.S. Army, Fort Detrick, Maryland)

08:10 **Keynote Address—Diabetes Technology in the 21st Century**

Richard Kahn, Ph.D. (American Diabetes Association, Alexandria, Virginia)

08:30 **Diabetes Research in Children Network Pilot Study of the Navigator Continuous Glucose Monitoring System in Children with Type 1 Diabetes: Safety, Tolerability, and Factors Associated with Use**

Stuart Weinzimer, M.D. (Yale University, New Haven, Connecticut)

08:50 **Comparison of Two Microdialysis Continuous Glucose Monitoring Devices**

Guido Freckmann, M.D. (Institute for Diabetes Technology, Ulm, Germany)

09:10 **Cost-Effectiveness of Self Monitoring of Blood Glucose (SMBG) in Type 2 Diabetes**

Volker Lodwig, Ph.D. (Institute for Medical Informatics & Biostatistics, Basel, Switzerland)

09:30 **Hemoglobin A1c: Whose Normal Range Is It Anyway?**

George Cembrowski, M.D., Ph.D. (University of Alberta, Edmonton, Canada)

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

10:20 **Break**

Session II – Obesity Technology: Measurement of Body Composition

10:50 **Moderator**

COL Karl Friedl, Ph.D. (U.S. Army, TATRC, Fort Detrick, Maryland)

10:55 **BMI and Body Fat**

Frank Greenway, M.D. (Pennington Biomedical Research Center, Louisiana State University, Baton Rouge, Louisiana)

11:25 **Body Composition Technologies**

Wm. Cameron Chumlea, Ph.D. (Wright State University, Kettering, Ohio)

11:55 **New Developments in Dual Energy X-Ray Absorptiometry for Measuring Body Composition**

Thomas Kelly, M.B.A. (Hologic, Inc., Bedford, Massachusetts)

12:25 **Q & A and Panel Discussion**

12:45 **End of Session**

12:45 **Lunch**

Friday, October 26, 2007 *continued*

Session III – Artificial Pancreas

- 13:55 Moderators**
 Jeffrey Joseph, D.O. (Thomas Jefferson University, Philadelphia, Pennsylvania)
 Marc Torjman, Ph.D. (University of Medicine and Dentistry of New Jersey, Camden, New Jersey)
- 14:00 The Future in Diabetes Management: Novel Concept for the Realization of an Artificial Pancreas**
 Martin Ellmerer, Ph.D. (Medical University of Graz, Graz, Austria)
- 14:20 Jumping Hoops, Closing Loops: An Industry Perspective**
 Marc Taub, Ph.D. (Abbott Diabetes Care, Alameda, California)
- 14:40 Pathway to the Closed Loop**
 John Mastrototaro, Ph.D. (Medtronic Diabetes, Northridge, California)
- 15:00 Intensive Insulin Therapy and the Artificial Pancreas in Critical Care: Pitfalls, Practicalities, and Performance**
 Geoffrey Chase, Ph.D. (University of Canterbury, Christchurch, New Zealand)
- 15:20 FDA and the Artificial Pancreas**
 Arleen Pinkos, MT (ASCP) (Food and Drug Administration, Rockville, Maryland)
- 15:40 Q & A and Panel Discussion**
- 16:10 Break**

Session IV – Should an Artificial Pancreas Be Controlled by Multiple Glucose Sensors?

- 16:35 Moderators**
 Jeffrey Joseph, D.O. (Thomas Jefferson University, Philadelphia, Pennsylvania)
 Marc Torjman, Ph.D. (University of Medicine and Dentistry of New Jersey, Camden, New Jersey)
- 16:40 Simultaneous Use of Multiple Glucose Sensing Units**
 W. Kenneth Ward, M.D. (iSense Corporation, Portland, Oregon)
- 16:55 The Utility of Simultaneous Glucose Sensor Measurements**
 Brian Hipszer, M.S. (Thomas Jefferson University, Philadelphia, Pennsylvania)
- 17:10 Can a Multisensor Platform Improve Noninvasive Glucose Monitoring**
 Andreas Caduff, Ph.D. (Solianis Monitoring AG, Zurich, Switzerland)
- 17:25 Closed Loop Control: Is It Rocket Science?**
 Robert Mah, Ph.D. (NASA Ames Research Center, Mountain View, California)
- 17:40 Q & A and Panel Discussion**
- 18:00 End of Session**
- 18:00-20:00 Reception and Poster Presentations**
- 20:00-22:00 Posters Remain on Display for Viewing**

Agenda • Saturday, October 27, 2007

Seventh Annual Diabetes Technology Meeting

07:00 Continental Breakfast

Session V – Insulin and Metabolic Peptide Delivery

- 08:00 **Welcome**
David Klonoff, M.D., FACP (Mills-Peninsula Health Services, San Mateo;
University of California, San Francisco, California)
- 08:05 **Moderators**
Gerold Grodsky, Ph.D. (University of California, San Francisco, California)
Athanasios Sambanis, Ph.D. (Georgia Institute of Technology, Atlanta, Georgia)
- 08:10 **Keynote Address—The Role of Technology in the Diabetes Epidemic**
Ann Albright, Ph.D., R.D. (Centers for Disease Control and Prevention, Atlanta, Georgia)
- 08:30 **PROMAXX Technology for Producing Inhaled Insulin**
Lutz Heinemann, Ph.D. (Profil Institute for Metabolic Research, Neuss, Germany)
- 08:50 **Insulin Replacement Gene Therapy For Type 1 Diabetes Mellitus**
Anthony Cheung, Ph.D. (enGene, Inc., Vancouver, Canada)
- 09:10 **Mealtime Glycemic Control Comparing VIAject™ to Lispro**
Andreas Pfützner, M.D., Ph.D. (Institute of Clinical Research and Development GmbH, Mainz, Germany)
- 09:30 **Role of CSII Therapy and Modern Insulins during Pregnancy**
Klaus Jensen, M.D. (Novo Nordisk A/S, Virum, Denmark)
- 09:50 **Q & A and Panel Discussion**
- 10:05 **Break**

Session VI – Nanotechnology and Microelectrical Mechanical Systems (MEMS)

- 10:30 **Moderator**
Christine Kelley, Ph.D. (National Institutes of Health, Bethesda, Maryland)
- 10:35 **Surface Enhanced Raman Spectroscopy: a Platform for *in Vivo* Analyte Measurement**
Matthew Glucksberg, Ph.D. (Northwestern University, Evanston, Illinois)
- 10:55 **In Search of a Better Glucose Sensor**
Leah Tolosa, Ph.D. (University of Maryland, Baltimore, Maryland)
- 11:15 **Use of Microneedles for Insulin Delivery**
Göran Stemme, Ph.D. (Royal Institute of Technology, KTH, Stockholm, Sweden)
- 11:35 **Peterson Student Award and Presentation**
Composites for Long-term Inflammation Control on s.c. Implantation of Biosensor
Upkar Bhardwaj, M.Pharm. (University of Connecticut, Storrs, Connecticut)
- 11:55 **Diabetes Technology Leadership Award Presentation**
- 12:00 **Q & A and Panel Discussion**
- 12:20 **End of Session**
- 12:20 **Lunch**

Saturday, October 27, 2007 *continued*

Session VII – Telemedicine and Diabetes

- 13:30 Moderators**
 Riccardo Bellazzi, Ph.D. (University of Pavia, Pavia, Italy)
 Jan Wojcicki, Ph.D., D.Sc. (Institute of Biocybernetics, Warsaw, Poland)
- 13:35 Connected Health Care Delivery and Care Coordination for People with Diabetes**
 Sven Bursell, Ph.D. (Harvard University, Boston, Massachusetts)
- 13:55 The Impact and Future Directions of an Internet-Based Glucose Monitoring System (IBGMS) on Diabetes Management and Health Economics**
 Kun-Ho Yoon, M.D., Ph.D. (The Catholic University of Korea, Seoul, Korea)
- 14:15 Computer-Assisted Decision Support for Management of DM by Primary Care Providers**
 COL Robert Vigersky, M.D. (U.S. Army, Walter Reed Army Medical Center, Washington D.C.)
- 14:35 Using Information Technology Capabilities & Pattern Recognition to Support Better Glycemic Control**
 Madeleine Fackler, M.S. (LifeScan, Inc., Milpitas, California)
- 14:55 Q & A and Panel Discussion**
- 15:20 Break**

Session VIII – Survey and Demonstration

- 16:00 Moderators**
 John Pickup, M.D., Ph.D. (Guy's Hospital, London, England)
- 16:05 Diabetes Technology Survey**
 Barry Ginsberg, M.D., Ph.D., Chair (Diabetes Technology Consultants, Wyckoff, New Jersey)
 B. Wayne Bequette, Ph.D. (Rensselaer Polytechnic Institute, Troy, New York)
 Thomas Forst, M.D. (Institute of Clinical Research and Development GmbH, Mainz, Germany)
 Howard Zisser, M.D. (Sansum Diabetes Research Institute, Santa Barbara, California)
- 16:45 Live Demonstration 1—An Interactive Website for Weight Management**
 Tiffany Stewart, Ph.D. (Pennington Biomedical Research Center, Louisiana State University, Baton Rouge, Louisiana)
- 17:05 Live Demonstration 2—Beyond Technology: Motivating Patient Behavior and Adherence**
 David Andre, Ph.D. (BodyMedia, Inc., Pittsburgh, Pennsylvania)
 Donna Wolf, Ph.D. (BodyMedia, Inc., Pittsburgh, Pennsylvania)
- 17:25 Q & A Discussion**
- 17:30 End of Meeting**

**EIGHTH ANNUAL
 DIABETES TECHNOLOGY MEETING**
 November 13-15, 2008
 Marriot Bethesda
 North Bethesda, Maryland