

Agenda • Thursday, November 10, 2005

Pre-Meeting Workshops

Workshop A – The Business of Diabetes

- 08:00 Diabetes: An Investor's Perspective**
Ross Jaffe, M.D. (Versant Ventures, Menlo Park, California)
- 08:35 Panel: Glucose Monitoring: Beyond the Fingertick**
Ross Jaffe, M.D., Moderator (Versant Ventures, Menlo Park, California)
Steven Edelman, M.D. (University of California, San Diego)
Thom Gunderson, M.Sc. (U.S. Bancorp Piper Jaffray, Minneapolis, Minnesota)
Charles Lamos, President & CEO (Fovioptics, Inc., Santa Clara, California)
- 09:20 Panel: Insulin Delivery: Beyond the Needlestick**
Kelly L. Close, Moderator (Close Concerns, San Francisco, California)
G. Alexander Fleming, M.D. (Kinexum, Harpers Ferry, West Virginia and former Clinical Group Leader, Division of Metabolic and Endocrine Drug Products, FDA Center for Drug Evaluation and Research)
Thom Gunderson, M.Sc. (U.S. Bancorp Piper Jaffray, Minneapolis, Minnesota)
John Pickup, M.D., Ph.D. (Guy's Hospital, London, England)
Chris Shibutani, M.D. (J.P. Morgan Securities Inc., New York, New York)
- 10:05 Break**
- 10:30 Panel: Pharmaceuticals for Diabetes: The Metabolic Approach**
Kelly L. Close, Moderator (Close Concerns, San Francisco, California)
Alain D. Baron, M.D. (Amylin Pharmaceuticals, Inc., San Diego, California)
Brad Bolzon, Ph.D. (Versant Ventures, Menlo Park, California)
M. Arthur Charles, M.D., Ph.D. (Diabetes Research Center, Tustin, California)
Jami Rubin, B.A. (Morgan Stanley, New York, New York)
- 11:15 Panel: Stem Cell Therapy: The Promise for Diabetes**
Ross Jaffe, M.D., Moderator (Versant Ventures, Menlo Park, California)
Arlene Chiu, Ph.D. (California Institute for Regenerative Medicine, San Francisco, California)
Martin McGlynn, (CEO, StemCells, Inc., Palo Alto, California)
Gordon Weir, M.D. (Joslin Diabetes Center, Harvard University, Boston, Massachusetts)
- 12:00 End of Workshop**

Workshop B – Diabetes Technology Society International Workshop for the Establishment of Performance Standards for Continuous Glucose Monitors

Part A - Academic Perspectives

- 13:30 Moderator**
Carol Herman, R.N. (U.S. Food and Drug Administration, Rockville, Maryland)
- 13:35 FDA and the Regulation of the New Generation of Glucose Measurement Devices**
Steven Gutman, M.D., M.B.A. (U.S. Food and Drug Administration, Rockville, Maryland)
- 13:45 A Parental Perspective on Continuous Glucose Monitoring**
Jeffrey Brewer (J.D.R.F. International Board of Directors, New York, New York)
- 13:55 Standards Benefit Military Operational Medicine Products**
Lt. Col. Carl Hover, Ph.D., M.P.H. (U.S. Army, Fort Detrick, Maryland)
- 14:05 Continuous Glucose Error Grid Analysis — When a Correct Result Isn't Enough**
William L. Clarke, M.D. (University of Virginia, Charlottesville, Virginia)
- 14:15 A Noninvasive Contact Lens Glucose Sensor: An Application of Ocular Spectroscopy**
Wayne March, M.D. (State University of New York Downstate, Brooklyn, New York)
- 14:25 The Need for Continuous Glucose Monitoring in Hospital ICUs**
Anthony Furnary, M.D. (Starr-Wood Cardiac Group of Portland PC, Portland, Oregon)
- 14:35 Panel and Q & A Session**
- 14:55 Break**

Thursday, November 10, 2005 *continued*

Part B - Industry Perspectives

- 15:20 Moderators**
James Nichols, Ph.D. (Baystate Medical Center, Springfield, Massachusetts)
George Cembrowski, M.D., Ph.D. (University of Alberta, Edmonton, Canada)
- 15:25 Determining the Accuracy of Insulin Adjustment Using Continuous Glucose Monitoring**
Geoff McGarraugh, M.S. (Abbott Diabetes Care, Alameda, California)
- 15:35 A Stake in the Ground for Clinical Efficacy**
Donald Parker, Ph.D., DABCC, FACB (Bayer Diagnostics, Elkhart, Indiana)
- 15:45 Measuring Accuracy in Continuous Glucose Sensing**
Barry Ginsberg, M.D., Ph.D. (Becton Dickinson and Company, Franklin Lakes, New Jersey)
- 15:55 A Continuous, Noninvasive Blood Glucose Monitor**
Benny Pesach, Ph.D. (Glucon Inc., Petach Tikva, Israel)
- 16:05 Consideration for Standards in Continuous Glucose Monitoring**
David L. Horwitz, M.D., Ph.D. (LifeScan, Inc., Milpitas, California)
- 16:15 Performance Standards for Continuous Glucose Monitoring: Can One Metric Tell All?**
John J. Mastrototaro, Ph.D. (Medtronic Diabetes, Northridge, California)
- 16:25 Successful Standards Development — How to Avoid Obstacles and Setbacks**
Luann Ochs, M.S. (Roche Diagnostics, Indianapolis, Indiana)
- 16:35 Panel and Q & A Session**
- 17:15 Break**

Part C - International Industry Perspectives

- 17:25 Moderator**
Lutz Heinemann, Ph.D. (Profil Institute for Metabolic Research, Neuss, Germany)
- 17:30 Panel Discussion: International Industry Perspective**
Orna Amir, Ph.D. (OrSense, Ltd., Rehovot, Israel)
Duncan MacIntyre, President & CEO (NIR Diagnostics, Inc., Campbellville, Ontario, Canada)
Joakim Hagvik, Ph.D. (HemoCue AB, Angelholm, Sweden)
- 18:00 End of Workshop**

Workshop C – Nutrition Technology for Type 2 Diabetes and Obesity

- 13:30 Moderator**
Jens S. Christiansen, M.D. (Aarhus University Hospital, Copenhagen, Denmark)
- 13:31 The NIH Investment in Dietary Supplement Research**
Paul Coates, Ph.D. (Director, Office of Dietary Supplements, National Institutes of Health, Bethesda, Maryland)
- 14:05 Popular Diets: What to Recommend to Patients for Diabetes and Obesity**
Lorrene D. Ritchie, Ph.D., R.D. (University of California, Berkeley)
- 14:40 Pharmacological Approaches to Obesity**
Robert H. Lustig, M.D. (University of California, San Francisco)
- 15:15 The Endocannabinoid System, Rimonabant and Treatment of the Metabolic Syndrome**
Theodore Ciaraldi, Ph.D. (University of California, San Diego)
- 15:50 Break**
- 16:15 Moderator**
Thomas Pieber, M.D. (Karl-Franzens University, Graz, Austria)
- 16:16 Exercise Technology in Physical Activity** Julia Orri, Ph.D. (University of San Francisco, California)
- 16:50 Adipocytokines**
Alka Kanaya, M.D. (University of California, San Francisco)
- 17:25 Bariatric Surgery for Type 2 Diabetes and Obesity**
L. Albert Wetter, M.D., FACS (Mills-Peninsula Health Services, Burlingame, California)
- 18:00 End of Workshop**

Thursday, November 10, 2005 *continued*

Fifth Annual Diabetes Technology Meeting

07:00-18:00 Registration

18:00 Meeting Commences

18:00-20:00 Reception/Poster Presentation

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

Agenda • Friday, November 11, 2005

Fifth Annual Diabetes Technology Meeting

07:00 Continental Breakfast

Session I – Technologies for Metabolic Monitoring

08:00 Welcoming Remarks

Michael Engelgau, M.D. (Centers for Disease Control and Prevention, Atlanta, Georgia)

08:05 Introduction

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

08:07 Moderator

Lt. Col. Carl Hover, Ph.D., M.P.H. (U.S. Army, Fort Detrick, Maryland)

08:10 Keynote Address - Medical Technologies for Space Exploration and Diabetes Management

Jeffrey Sutton, M.D., Ph.D. (National Space Biomedical Research Institute, Houston, Texas)

08:30 Characterizing the Lag Time Contributors of Transdermal Continuous Glucose Monitoring

Mihailo V. Rebec, Ph.D. (Bayer Diagnostics, Elkhart, Indiana)

08:50 Reproducibility of Interstitial Fluid Glucose Lag and the Relationship Among Lag, Lag Mitigation and Peripheral Blood Perfusion

Philip J. Stout, M.S. (LifeScan, Inc., St. Paul, Minnesota)

09:10 Detecting Type 2 Diabetes with Noninvasive Skin Fluorescence Spectroscopy

Marwood N. Ediger, Ph.D. (VeraLight, Albuquerque, New Mexico)

09:30 Self-Monitoring of Blood Glucose in Type 2 Diabetes is Associated with Improved Long-Term Outcomes: The ROSSO Study

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

09:50 Panel and Q & A

10:10 Break

Qualitative Detection of Hypoglycemia in the Central Nervous System

10:40 Moderator

Colonel Karl Friedl, Ph.D. (U.S. Army Research Institute of Environmental Medicine, Natick, Massachusetts)

10:45 Brain Interstitial Fluid Glucose: Effect of Hypoglycemia

Robert Sherwin, M.D. (Yale University, New Haven, Connecticut)

Friday, November 11, 2005 *continued*

- 11:10** **Consequences of Recurrent Exposure to Hypoglycemia in Type 1 Diabetes**
Brian M. Frier, M.D., FRCF (Royal Infirmary of Edinburgh, Scotland)
- 11:35** **Hypoglycemia Unawareness and Hypoglycemia Risk Prediction**
Anthony McCall, M.D., Ph.D. (University of Virginia, Charlottesville, Virginia)
- 12:00** **A Novel Noninvasive Methodology for the Detection of Hypoglycemia: The HypoMon®**
Nejehdeh Ghevondian, Ph.D. (AiMedics Ltd., Sydney, Australia)
- 12:25** **Panel and Q & A**
- 12:45** **End of Session**
- 12:45-13:55** **Lunch**

Session II - Artificial Pancreas

- 13:55** **Moderators**
Jeffrey Joseph, D.O. (Thomas Jefferson University, Philadelphia, Pennsylvania)
Marc C. Torjman, Ph.D. (University of Medicine & Dentistry, Camden, New Jersey)
- 14:00** **Closed-Loop INSulin Infusion for Critically Ill Patients: Practical Implementation Using the CLINICIP Approach**
Martin Ellmerer, Ph.D. (Medical University of Graz, Austria)
- 14:20** **Clinical Performance and Accuracy of the Five-Day FreeStyle Navigator™ Continuous Glucose Monitoring System**
Tim Goodnow, Ph.D. (Abbott Diabetes Care, Alameda, California)
- 14:40** **The Way Towards an Automated Pancreas - A Winding Road?**
Thomas J. Vering, Ph.D. (Disetronic Medical Systems AG, Bugdorf, Switzerland)
- 15:00** **Improving Metabolic Control of T1DM with the Use of Guardian® RT Continuous Glucose Monitoring System with Real Time Glucose Values and Alarm Functions: Results of the Guardcontrol Trial**
Moshe Phillip, M.D. (Sackler Faculty of Medicine, Tel Aviv University, Petach Tikva, Israel)
- 15:20** **Panel and Q & A**
- 15:40** **Break**
- 16:10** **Panel: Algorithm Development for an Artificial Pancreas**
Richard N. Bergman, Ph.D. (University of Southern California, Los Angeles)
Gerold M. Grodsky, Ph.D. (University of California, San Francisco)
Roman Hovorka, Ph.D. (University of Cambridge, England)
- 17:10** **Panel and Q & A**
- 17:25** **Peterson Student Research Award Presentations**
- 17:30** **Comparison of a Needle Type and a Microdialysis Continuous Glucose Sensor in Type 1 Diabetes Patients**
Iris Wentholt, M.D., Ph.D. candidate (Academic Medical Center, Amsterdam, Netherlands)
- 17:50** **End of Session**

18:00-20:00 Reception and Poster Presentation

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

Agenda • Saturday, November 12, 2005

Fifth Annual Diabetes Technology Meeting

07:00 **Continental Breakfast**

Session III – Insulin Delivery Technology

08:00 **Welcome**

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

08:05 **Moderators**

John Emond, M.P.A. (NASA, Washington DC)
Athanasios Sambanis, Ph.D. (Georgia Institute of Technology, Atlanta, Georgia)

08:10 **Keynote Address - Cellular Therapy for Diabetes**

Gordon C. Weir, M.D. (Joslin Diabetes Center, Harvard University, Boston, Massachusetts)

08:30 **Insulin Treatment - What Now, What Next?**

Mathew C. Riddle, M.D. (Oregon Health & Science University, Portland, Oregon)

08:50 **Are All Rapid-Acting Insulin Analogs Approved for CSII Therapy the Same?**

Simon A. Lawton, M.D. (Novo Nordisk A/S, Bagsvaerd, Denmark)

09:10 **Technosphere®/Insulin: An Inhaled Insulin in a Class by Itself**

Andrea Leone-Bay, Ph.D. (MannKind Corporation, Danbury, Connecticut)

09:30 **Panel and Q & A**

09:50 **Break**

Session IV – Nanotechnology and Diabetes

10:20 **Moderator**

Minoo Dastoor, Ph.D. (Senior Advisor, Exploration Systems Mission Directorate, NASA, Washington DC)

10:25 **In-Vivo Fluorescence Detection of Glucose Using a Single-Walled Carbon Nanotube Optical Sensor**

Michael S. Strano, Ph.D. (University of Illinois, Urbana-Champaign, Illinois)

10:45 **Nanotechnology Applied to Engineering Glucose-Sensing Smart Tattoos**

Michael J. McShane, Ph.D. (Louisiana Tech University, Ruston, Louisiana)

11:05 **Glucose-Responsive Polymer Nanoparticles for Insulin Delivery**

Shirley X.Y. Wu, Ph.D. (University of Toronto, Canada)

11:25 **Nanoporous Inorganic Encapsulation Barriers: Opportunities and Challenges**

Tejal A. Desai, Ph.D. (University of California, San Francisco)

11:45 **Panel and Q & A**

12:05 **End of Session**

12:05-13:15 Lunch

Session V – Computers and Diabetes

13:15 Moderators

Riccardo Bellazzi, Ph.D. (University of Pavia, Italy)

Yvonne Cagle, M.D. (Astronaut, NASA, Johnson Space Center, Houston, Texas)

13:20 Present and Future Interactive Diabetes Management

Irl B. Hirsch, M.D. (University of Washington, Seattle, Washington)

13:40 Trying to Predict the Future: Examining the Role of Computer Disease Models

Michael Engelgau, M.D. (Centers for Disease Control and Prevention, Atlanta, Georgia)

14:00 Development, Evaluation, and Usage of an Interactive Educational Diabetes Simulator

Eldon D. Lehmann, M.D., Ph.D. (Imperial College, London, England)

14:20 KADIS[®]-Based Diabetes Service Center for Outpatient Care and Management

Eckhard Salzsieder, M.D. (Institute of Diabetes, Karlsburg, Germany)

14:40 Diabetes Phone Support is as Effective as Internet Support

Jae-Hyoung Cho, M.D. (Catholic University of Korea, Seoul, Korea)

15:00 Panel and Q & A

15:20 Break

Inventors and Their Inventions

Session VI - Survey and Demonstration

16:00 Moderator

John C. Pickup, M.D., Ph.D. (Guy's Hospital, London, England)

16:05 Annual Diabetes Technology Survey

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

Bruce A. Buckingham, M.D. (Stanford University, Palo Alto, California)

Aaron I. Vinik, M.D., Ph.D. (Strelitz Diabetes Institutes, Eastern Virginia Medical School, Norfolk, Virginia)

Jan Wojcicki, Ph.D., D.Sc. (Institute of Biocybernetics, Warsaw, Poland)

16:55 Demonstration of NASA Model System for Detecting Hypoglycemia

Ronald C. Merrell, M.D., FACS (Virginia Commonwealth University, Richmond, Virginia)

Azhar Rafiq, M.D., M.B.A. (via Teleconference) (Virginia Commonwealth University, Richmond, Virginia)

**SIXTH ANNUAL
DIABETES TECHNOLOGY MEETING
November 2 - 4, 2006
Westin Peachtree Plaza Hotel
Atlanta, Georgia**