Thursday, November 8, 2018

**07:00**  
*Continental Breakfast*

**Workshop A: Adherence to Treatment**

**Panel 1: Technology for Determining Adherence**

**08:00**  
**Moderators**  
Koji Sode, PhD  
University of North Carolina at Chapel Hill, Chapel Hill, North Carolina  
Bithika Thompson, MD  
Mayo Clinic, Scottsdale, Arizona

**08:05**  
**Developing a Technology Enabled Model to Support Medication Taking Behaviors**  
Deborah Greenwood, PhD, RN, BC-ADM, CDE, SAADE  
Deborah Greenwood Consulting, Sacramento, California

**08:20**  
**Hardware – Smart Pens**  
Jane Seley, DNP, MPH, MSN, GNP, BC-ADM, CDE, CDTC, FAAN  
New York Presbyterian / Weill Cornell Medicine, New York, New York

**08:35**  
**Advances in BGM Logbooks and Apps**  
David Ahn, MD  
Mary & Dick Allen Diabetes Center at Hoag, Newport Beach, California

**08:50**  
**A New User Experience for Determining Insulin Pump Adherence**  
Kimberly Driscoll, PhD  
University of Colorado Barbara Davis Center for Diabetes, Aurora, Colorado

**09:05**  
**Q & A**

**09:35**  
**Break**

**Panel 2: Technology for Increasing Adherence**

**09:55**  
**Moderators**  
Gabriel Bitton, PhD  
Insuline Medical, Petah Tikva, Israel  
Sammy Choi, MD  
Womack Army Medical Center, Fort Bragg, North Carolina

**10:00**  
**Software Reminder Apps**  
Mark Clements, MD, PhD  
Children’s Mercy Hospital, Kansas City, Missouri

**10:15**  
**The Need for Increased Adherence to Diabetes Therapy**  
Nisha Subramanian, MBA  
McKinsey & Company, Summit, New Jersey

**10:30**  
**Connected Insulin Pens**  
Jennal Johnson, FNP, MS  
Eli Lilly, Indianapolis, Indiana

**10:45**  
**Innovative Strategies to Improve Adherence to Diabetes Treatment**  
Eda Cengiz, MD  
Yale University, New Haven, Connecticut

**11:00**  
**Q & A**

**11:30**  
**End of workshop/Lunch**
07:00  Continental Breakfast

Workshop B: Diabetes Technology in the Hospital

Panel 1: New Uses for Established Hardware

08:00  Moderators
Nestoras Mathioudakis, MD
Johns Hopkins University, Baltimore, Maryland
Garry Steil, PhD
Boston Children’s Hospital, Boston, Massachusetts

08:05  Regulation of Hospital BGM Accuracy
Leslie Landree, PhD
FDA, Silver Spring, Maryland

08:20  Accuracy of BG Testing in the Hospital
William Clarke, PhD, MBA, DABCC
Johns Hopkins University, Baltimore, Maryland

08:35  Capillary POC BG Testing in the ICU
Mark Rice, MD
Vanderbilt University, Nashville, Tennessee

08:50  Insulin Pumps in the Hospital
Curtiss B. Cook, MD
Mayo Clinic, Scottsdale, Arizona

09:05  Q & A

09:35  Break

Panel 2: Novel Technologies

09:55  Moderators
Geoff Chase, PhD
University of Canterbury, Christchurch, New Zealand
Greg Garcia, BS
Healthcare Sector Coordinating Council, Washington, DC

10:00  CGM in the Hospital
Elias Spanakis, MD
University of Maryland, Baltimore, Maryland

10:15  Artificial Pancreas in the Hospital
Roman Hovorka, PhD
University of Cambridge, Cambridge, United Kingdom

10:30  Threat Modeling in Medical Devices and Networks
Michael Taborn, BSEE
Intel Corporation, Phoenix, Arizona

10:45  Maintaining Privacy of Diabetes Data in the Hospital
Tim West, BS
GuidePoint Security, St. Louis, Missouri

11:00  Q & A

11:30  End of workshop/Lunch
Workshop C: The Future of Self-Monitoring of Blood Glucose (SMBG)

Panel 1: Maximizing Technology

12:30  Moderators
Heather C. Kuiper, PhD
Centers for Disease Control and Prevention, Atlanta, Georgia
Rosemary Oshinsky, MSN, RN, CDE
Sibley Memorial Hospital, Johns Hopkins University, Washington, DC

12:35  Extracting Maximum Value from SMBG
Timothy S. Bailey, MD, FACE
AMCR Institute, Escondido, California

12:50  Point of Care Blood Glucose Testing in the Hospital
Deanna Bogner, MT (ASCP)
Baptist Health System, San Antonio, Texas

13:05  The Relationship Between A1C and Blood Glucose Values
Robert Cohen, MD
University of Cincinnati, Cincinnati, Ohio

13:20  Safe Disposal of Needles and Blood Waste
Ed Krisiunas, MPH
WNWN International, Burlington, Connecticut

13:35  Q & A

14:05  Break

Panel 2: Emerging Trends

14:25  Moderators
Robert Burk, MD
Albert Einstein College of Medicine, Bronx, New York
Kong Chen, PhD MSCI
NIDDK/National Institutes of Health, Bethesda, Maryland

14:30  New Technologies to Detect and Eliminate Interferences
Corinne Fantz, PhD, DABCC, FACB
Roche Diagnostics, Indianapolis, Indiana

14:45  Digitalization and Analytics in Diabetes
Martin Lange, MBA
Ascensia, Basel, Switzerland

15:00  Encouraging Adherence
Susana Patton, PhD, CDE
University of Kansas, Kansas City, Kansas

15:15  Noninvasive Glucose Monitoring
Ishan Barman, PhD
Johns Hopkins University, Baltimore, Maryland

15:30  Q & A

16:05  End of workshop

16:15–18:30  Poster Session Night One, Startup Showcase, and Inauguration of the 18th Annual Diabetes Technology Meeting

18:30–20:00  Posters remain on display for viewing
Workshop D: Novel Hardware

Panel 1: Implanted Sensors

12:30  Moderators
Alexander Fleming, MD
Kinexum, Harpers Ferry, West Virginia
Jisun Yi, MD
FDA, Silver Spring, Maryland

12:35  Barriers to Implanted Optical Glucose Sensors
Mark Arnold, PhD
University of Iowa, Iowa City, Iowa

12:47  A Long-Term Implanted Sensor; Sustaining the Benefits of CGM
William Markle, MBA
GlySens, San Diego, California

12:59  Fully Implantable Intraperitoneal Artificial Pancreas
Chris Hanson, MS
Theranova, San Francisco, California

13:11  Recent Advances with a Needle-Implantable CGM Platform
Fotios Papadimitrakopoulos, PhD
University of Connecticut, Storrs, Connecticut

13:23  An Implanted Osmotic Sensor
Andreas Pfützner, MD, PhD
Lifecare AS, Bergen, Norway

13:35  Q & A

14:05  Break

Panel 2: Insulin Pumps

14:25  Moderator
Robert Gabbay, MD, PhD
Joslin Diabetes Center, Harvard University, Boston, Massachusetts

14:30  Debate: Optimal Glycemic Control in Type I Diabetes: Insulin Pumps vs. MDI
Roy Beck, MD, PhD
Jaeb Center for Health Research, Tampa, Florida
John Pickup, MD, PhD
King’s College London School of Medicine, London, United Kingdom

15:10  A Novel Digital Tubeless Patch Pump Diabetes Management System
Aiman Abdel-Malek, PhD
Insulet Corporation, San Diego, California

15:25  A Novel Patch Pump
Ian Welsford, PhD
EOFlow, San Jose, California

15:40  Navigating a Sticky Situation: Overcoming Skin Reactions to Adhesives for Insulin Pumps
Del Lawson, PhD
3M Medical Materials & Technologies, Maplewood, Minnesota

15:55  Q & A

16:05  End of workshop

16:15–18:30  Poster Session Night One, Startup Showcase, and Inauguration of the 18th Annual Diabetes Technology Meeting

18:30–20:00  Posters remain on display for viewing
07:00  Continental Breakfast

Session 1: Healthcare Information Technology

08:00  Welcome/Open Remarks
David Klonoff, MD, FACP, FRCP (Edin), Fellow AIMBE
Mills-Peninsula Medical Center, San Mateo, California
University of California, San Francisco, San Francisco, California

08:05  Keynote: Changing Times at the FDA
Jeffrey Shuren, MD, JD
FDA, Silver Spring, Maryland

08:30  Moderators
Andrew Bremer, MD, PhD
NIDDK/National Institutes of Health, Bethesda, Maryland
Dorian Liepmann, PhD
University of California, Berkeley, Berkeley, California

08:30  Artificial Intelligence
Tom Lawry, BS
Microsoft, Redmond, Washington

08:50  Blockchain in Healthcare: The Case for Pragmatic Innovation
Ron Ribitzky, MD
R&D Ribitzky, Newtown, Massachusetts

Session 2: CGM-Based Outcome Metrics

9:10  Moderators
Guillermo Arreaza-Rubin, MD
NIDDK/National Institutes of Health, Bethesda, Maryland
David Klonoff, MD, FACP, FRCP (Edin), Fellow AIMBE
Mills-Peninsula Medical Center, San Mateo, California
University of California, San Francisco, San Francisco, California

9:10  Panel Discussion
Why Estimating A1C from Mean Glucose Data Can Be Both Misleading and Important
Richard Bergenstal, MD
International Diabetes Center, St. Louis Park, Minnesota

Metrics of Average Glycemia and Glucose Variability
Boris Kovatchev, PhD
UVA Center for Diabetes Technology, Charlottesville, Virginia

Validation of Glucose Metrics as Outcome Measures for Clinical Trials
Roy Beck, MD, PhD
Jaeb Center for Health Research, Tampa, Florida

How FDA Looks at New Endpoints and in Particular at New Endpoints to Replace or Supplement A1C
Courtney Lias, PhD
FDA, Silver Spring, Maryland

Selecting Outcome Measures for Clinical Trials
David Maahs, MD, PhD
Stanford University, Palo Alto, California

10:50  End of session/Break
## Session 3: Regulation of Diabetes Technology

11:15  **Moderators**  
Alberto Gutierrez, PhD  
NDA Partners LLC, Bethesda, Maryland  
Dominique Shelton Leipzig, JD  
Perkins Coie, Los Angeles, California  

11:15  **CGM-Based Decision Support for MDI Patients**  
Marc Breton, PhD  
UVA Center for Diabetes Technology, Charlottesville, Virginia  

11:30  **Insulin Dose Calculators and Diabetes Apps**  
Naomi Schwartz, BS  
FDA, Silver Spring, Maryland  

11:40  **Interoperable Continuous Glucose Monitoring Systems**  
Alain Silk, PhD  
FDA, Silver Spring, Maryland  

11:50  **The FDA Pre-Certification Program for Software as a Medical Device**  
Bradley Merrill Thompson, JD  
Epstein Becker & Green, P.C., Washington, DC  

12:05  **Panel Discussion**  

12:20  *End of session/Lunch*
Session 4: Artificial Pancreas in Type 1

13:20 Moderators
Jeffrey Joseph, DO
Thomas Jefferson University, Philadelphia, Pennsylvania
Moshe Phillip, MD
Schneider Children’s Medical Center, Petah Tikva, Israel

13:20 Artificial Pancreas Award

13:25 The NIH Vision
Guillermo Arreaza-Rubin, MD
NIDDK/National Institutes of Health, Bethesda, Maryland

13:37 The JDRF Vision
Daniel Finan, PhD
JDRF, New York, New York

13:49 The International Diabetes Closed Loop Trial
Stacey Anderson, MD
UVA Center for Diabetes Technology, Charlottesville, Virginia

14:01 Prevention of Post-Bariatric Hypoglycemia: Design and Clinical Evaluation of a Smart Rescue System
Eyal Dassau, PhD
Harvard University, Cambridge, Massachusetts

14:13 Stretching Break

14:18 A Tubeless Hybrid Closed Loop System
Trang Ly, MBBS, FRACP, PhD
Insulet Corporation, Billerica, Massachusetts

14:30 Artificial Pancreas in Children
Eric Renard, MD, PhD
Montpellier University Hospital, Montpellier, France

14:42 Q & A

15:05 End of session/Break

Session 5: CEO Discussion: Artificial Pancreas in Type 2

15:30 Moderator
David Kerr, MD, FRCPE
Sansum Diabetes Research Institute, Santa Barbara, California

15:30 Is There a Market for the Artificial Pancreas in Type 2 Diabetes Patients?
Jeffrey Brewer, BA
CEO, Bigfoot Biomedical, Milpitas, California
Marcel Gmuender, JD
Global Head of Roche Diabetes Care, Basel, Switzerland
Hooman Hakami, BBA
Executive Vice President and Group President, Medtronic Diabetes, Northridge, California
Patrick Sullivan, MBA
President and CEO, Insulet Corporation, Billerica, Massachusetts

16:30–18:30 Poster Session Night Two and Startup Showcase
18:30–20:00 Posters remain on display for viewing
07:00  Continental Breakfast

Session 6: Novel Insulins

08:00  Moderators
Gerald Grodsky, PhD
University of California, San Francisco, San Francisco, California
John Nolan, MD
European Diabetes Forum, Dublin, Ireland

08:05  Recap of First Day and Presentation of Student Award

08:10  Gold Prize Student Presentation
Activity Detection and Activity Level Categorization in Free-Living Subjects with Type 1 Diabetes
Divya Choudhary
Harvard University, Cambridge, Massachusetts

08:25  Is Ultra Rapid-Acting Insulin Needed?
Bruce Bode, MD, FACE
Atlanta Diabetes Associates, Atlanta, Georgia

08:45  Inhaled and Oral Insulins
Lutz Heinemann, PhD
Science & Co., Düsseldorf, Germany

09:05  New Drugs in the Pipeline
Eric Zijlstra, PhD
Profil, Neuss, Germany

09:25  Light-Induced Insulin Therapy
Simon H. Friedman, PhD
University of Missouri, Kansas City, Missouri

09:45  Q&A

10:05  End of session/Break
Session 7: Digital Diabetes Data Science

10:30  Moderators
Jorge Bondia, PhD
Universitat Politecnica de Valencia, Valencia, Spain
Andrea Facchinetti, PhD
University of Padova, Padova, Italy

10:30  Diabetes Data Science – Linking Electronic Health Records and Real-Time Monitoring
Boris Kovatchev, PhD
UVA Center for Diabetes Technology, Charlottesville, Virginia

10:50  A Clinician’s Perspective on Diabetes Data Science
Moshe Phillip, MD
Schneider Children’s Medical Center, Petah Tikva, Israel

11:10  NIH Initiatives in Diabetes Data Science
Andrew Bremer, MD, PhD
NIDDK/National Institutes of Health, Bethesda, Maryland

11:30  The Type 2 Diabetes Knowledge Portal
Noel Burtt, BS
Broad Institute, Cambridge, Massachusetts

11:50  Q & A

12:10  End of session/Lunch

Session 8: Hot Topics in Diabetes Technology

13:10  Moderators
Andreas Pfützner, MD, PhD
Lifecare AS, Bergen, Norway
Victor Schneider, MD
NASA, Washington, DC

13:15  Cellular Therapy
Matthias Hebrok, PhD
University of California, San Francisco, San Francisco, California

13:35  Relationship Between Hypoglycemia and Cardiac Arrhythmias
Simon Heller, MD
The University of Sheffield, Sheffield, United Kingdom

13:55  Q & A

14:05  End of session
Session 9: Infusion Sets

14:05  **Moderators**
Andrea Bell-Vlasov, PhD  
FDA, Silver Spring, Maryland  
Ulrike Klueh, PhD  
Wayne State University, Detroit, Michigan

14:05  **The Achilles Heel of Insulin Infusion**
Lutz Heinemann, PhD  
Science & Co., Düsseldorf, Germany

14:20  **Robust, Reliable Infusion Technology for Automated Delivery Systems**
Matthias Heschel, PhD  
Convatec, Copenhagen, Denmark

14:30  **Development of an Advanced Continuous Subcutaneous Insulin Infusion (CSII) Catheter with Extended Duration of Use and More Reliable Insulin Delivery**
Jeffrey Joseph, DO  
Thomas Jefferson University, Philadelphia, Pennsylvania

14:40  **Novel Technology for Insulin Infusion**
Bob Cargill, PhD  
Pacific Diabetes Technology, Portland, Oregon

14:50  **Intraperitoneal Insulin Infusion**
Eric Renard, MD, PhD  
Montpellier University Hospital, Montpellier, France

15:05  **Q & A**

15:15  **End of session/Break**
Session 10: Technology to Improve Accuracy of Needle Sensor CGMs

15:40  Moderators
       Jesper Fleischer, PhD
       Aarhus University, Aarhus, Denmark
       John Pickup, MD, PhD
       King’s College London School of Medicine, London, United Kingdom

15:40  Performance of a Next Generation CGM System
       Marc Taub, PhD
       Abbott Diabetes Care, Alameda, California

15:52  CGM Accuracy and Next Generation Devices
       Peter Simpson, PhD
       Dexcom, San Diego, California

16:04  Leveraging Real-Time Diagnostics to Improve Sensor Accuracy and Minimize User Burden
       Andrea Varsavsky, PhD
       Medtronic Diabetes, Los Angeles, California

16:16  A New Needle Sensor
       Mihailo Rebec, PhD
       WaveForm Technologies, Wilsonville, Oregon

16:28  Q & A

Session 11: Live Demonstration

16:40  Moderator
       John Pickup, MD, PhD
       King’s College London School of Medicine, London, United Kingdom

16:40  An Automated AI Detection System for Diabetic Retinopathy
       Michael Abramoff, MD, PhD
       IDx-DR
       University of Iowa, Iowa City, Iowa

17:00  End of session/Adjourn