3rd Annual Frontiers in Diabetes Research Symposium
McCaw Hall, Arrillaga Alumni Center, May 2nd, 2018

8:00-8:15am  Registration and poster setup
8:15-8:45am  Introduction and Update on Stanford Diabetes Research Center: Seung Kim
8:45-10:00am SESSION I: Bioengineering and Behavioral Sciences
            8:45-9:15 am  Bruce Buckingham – “Closing the loop”
            9:15-9:45 am  Howard Look, Tidepool – “Catalyzing a T1D Ecosystem with Open
                            Source and Big Data”
            9:45-10:00 am  Diana Naranjo – “Leveraging Virtual Reality to Optimize Uptake of
                            Diabetes Devices”

10:00-10:15 am  COFFEE & SNACK BREAK
10:15-11:30 am  SESSION 2: Immunology and Islet Transplantation
            10:15-11:00am  Defu Zeng, City of Hope – “MHC-mismatched mixed chimerism
                            cures autoimmunity and augments beta cell regeneration in
                            autoimmune NOD mice”
            11:00-11:15 am  Avnesh Thakor – “Strategies to Improve Islet Transplantation”
            11:15-11:30 am  Paul Bollyky – “The tissue microenvironment and immune
                            regulation in T1D”

11:30-12:00 pm  Poster session
12:00-1:00pm  Lunch + poster session continued
1:00-2:00 pm  KEYNOTE Speaker: Dr. Carla Greenbaum, Director, Diabetes Program, Benaroya
              Research Institute – “Disease Modifying Therapy in T1D”
2:00-3:15 pm  SESSION 3: Metabolism and Signaling
            2:00-2:45 pm  Danica Chen, University of California, Berkeley – “Mitochondrial
                            Metabolic Checkpoint, Stem Cell Aging and Rejuvenation”
            2:45-3:00 pm  James Priest – “Relationship between maternal indices of glycemic
                            control and congenital heart disease”
            3:00-3:15 pm  Sun H Kim – “Liver Fat is the New Visceral Fat”

3:30-4:45 pm  SESSION 4: Pancreas and Islet Biology
            3:30-4:15 pm  Mark Huising, University of California, Davis – “Regulation of Beta
                            Cell Fate and Function through Local Crosstalk in Pancreatic Islets”
            4:15-4:30 pm  Justin Annes – “Developing A Regenerative Small Molecule
                            Approach to Diabetes Therapy”
            4:30-4:45 pm  Andrew Lipchik (Snyder lab) – “IgG Mediated Suppression of
                            Mitochondrial Respiration as a Surrogate Measure of Insulin
                            Sensitivity”

4:45-5:00 pm  Prizes/Awards announcements and closing remarks

We gratefully acknowledge the generous grant for this conference provided by:
National Institutes of Health/National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)
Grant No. P30DK116074
1A: Caitlin Maikawa - Improving Insulin Formulation with a Designer Supramolecular Excipient
1B: Magdiel Perez-Cruz - T Cells Expressing Chimeric Antigen Receptor Promote Immune Tolerance
1C: Linda Yip - Peripheral Blood Gene Expression Profiling to Identify Biomarkers of Disease Susceptibility in Type 1 Diabetes
1D: Xiaoyi Zheng - Endothelial Cell-Specific Molecule-1 Reduces Leukocyte Infiltration and Albuminuria in Diabetic Nephropathy
2A: Bianca Augustin – Addressing Behaviors Related to the Uptake and Use of Closed Loop Automated Insulin Delivery Systems: A Diabetes Virtual Reality Intervention
2B: Laya Ekhlaspour – Liquid Room Temperature Stable Glucagon: Glucose Response in Pediatric Type 1 Diabetes Patients
2C: Laya Ekhlaspour – Does a Hybrid-Closed Loop System Reduce Overnight Alarms in Patients with Type 1 Diabetes?
2D: Laya Ekhlaspour – The Effect of Insulin Delivery Speed on Postprandial Glucose Response at Breakfast Following Overnight Closed Loop
3A: Yan Hang – A Novel Inter-Organ Signaling Pathway Regulating Islet Insulin Secretion
3B: Bruce Buckingham – A Randomized Trial to Assess the Efficacy and Safety of a Predictive Low Glucose Suspend (PLGS) System in Type 1 Diabetes
3C: Bruce Buckingham – Glycemic Outcomes During Minimed 670G System Use In Children With Type 1 Diabetes
3D: Bruce Buckingham – Effectiveness of Closed-Loop Control in Decreasing Hypoglycemia Unawareness
4A: Laura Nally – A Feasibility Study to Detect Neonatal Hypoglycemia Using Real-Time CGM
4B: Nadine Nagy – Inhibition of Hyaluronan Synthesis Restores Immune Tolerance During Autoimmune Insulitis
4C: Heshan Peiris – Conditional Genetics and Human Islet Studies to Discover Diabetes Risk Gene Function
4D: Lisa Norlander – Late and Missed Meal Boluses with Multiple Daily Insulin Injections
5A: Katrin Svensson – Isthmin-1 is a Protein Hormone That Prevents Hepatic Steatosis and Regulates Glucose Homeostasis
5B: Krissie Tellez – Elucidating in vivo Mechanisms Regulating Glucagon Secretion in a Glucagon Null Mouse
5C: Cynthia Shih – Blood Lipid Changes Associated with Dietary Saturated Fat Changes on Healthy Low-Carb Weight Loss Diet
5D: Mehdi Razavi – An Oxygen-Generating Bioscaffold for Pancreatic Islet Transplantation
6A: Mohsen Fathzadeh – Nat1 Deficiency Causes Insulin Resistance and Impaired Hepatic Amino Acid Metabolism
6B: Tim Horton – The B-Cell Zinc Sink: High-Affinity Zinc Chelating Small Molecules Preferentially Accumulate and Function within Pancreatic B-Cells
6C: Tatiana Marcal – TBD
6D: Christine Hye-Jin Lee – Inpatient Insulin Management Post Total Pancreatectomy
7A: Ivan Carcamo-Oribe – Co-Expression and Predictive Network Based Key Driver Analysis of Insulin Resistance in Human iPSC Lines
7B: Sooyeon Lee – Mitochondrial Dysfunction Promotes Diabetes via A Previously Unrecognized Mechanism: Protein Succinylation
8A: Kent Jensen – The Stanford Islet Research Core (SIRC)
8B: Kent Jensen – The Diabetes Immune Monitoring Core (DIMC)
9B: Sylwia Figarska – Associations of circulating protein levels with lipid fractions in the general population
10A/B: Terry Unterman – Hepatic FoxO Proteins Impact Systemic Glucose Homeostasis Through Effects on Hepatic Gene Expression and White and Brown Fat Metabolism
10C: Christina Petlura – SDRC Clinical Translational Core
10D: Peter Maguire – DGAC: DGAC: Advances in Next-Generation Sequencing