



# Center for Diabetes and Metabolic Diseases

## 6th Annual Symposium - Aug. 13-14, 2020

The 6th Annual Symposium features presentations from trainees and early career investigators within the Center for Diabetes and Metabolic Diseases community. Twenty-seven presentations are organized in to five thematic sessions. Sessions 1-3 will occur on Thursday, Aug. 13 at 2:45 PM and Sessions 4-5 will take place on Friday, Aug. 14 at 10:30 AM.

For access to each session, refer to the symposium schedule.

### Oral Session Presenters

#### Session 1 - Clinical Research

Moderator: Linda DiMeglio, MD

<i>Paula Angarita-Rivera</i>	<i>Canine-Inspired Smart &amp; Integrated Gas Sensors for Detecting Volatile Organic Compound Biomarkers of Hypoglycemia in Human Breath</i>
<i>Audrey Hull</i>	<i>Alpha-difluoromethylornithine (DFMO) is Safe and Well Tolerated in Adults and Children with Type 1 Diabetes</i>
<i>Leo Song</i>	<i>Diabetes impact on patient reported outcomes following pelvic organ prolapse surgery</i>
<i>Priya Soni</i>	<i>Normative Fasting C-Peptide Values Among Adolescents in the National Health and Nutrition Examination Surveys (NHANES)</i>
<i>Breanne Hand</i>	<i>Effects of the COVID-19 Pandemic on Caregivers of Youth with Type 1 Diabetes (T1D): Stress and Self-efficacy</i>
<i>Kelly Moors</i>	<i>Stimulated beta cell response is unaltered in adult autoantibody (Ab) negative relatives of individuals with Type 1 Diabetes (T1D)</i>

#### Session 2 - Islet Biology

Moderator: Emily Sims, MD

<i>Emma McBride</i>	<i>Rapid Quantification of Beta Cell Secretion using Electrochemical Zn<sup>2+</sup> Sensors and Integration with Microphysiological Systems</i>
<i>Annie Pineros, PhD</i>	<i>Myeloid-specific deletion of Alox15 decreases pancreatic inflammation and protects from spontaneous diabetes development in NOD Mice</i>
<i>Michelle Marasco, PhD</i>	<i>Investigating the activation of mitophagy and the non-canonical antioxidant response by IL-6 in vivo</i>
<i>Farooq Syed, PhD</i>	<i>Beta cell miRNAs Function as Molecular Hubs of Type 1 Diabetes Pathogenesis and Risk</i>
<i>Morgan Robertson</i>	<i>Targeting polyamine biosynthesis to stimulate beta cell regeneration in zebrafish</i>
<i>Robert Bone, PhD</i>	<i>Sarco/Endoplasmic Reticulum ATPase Deficiency in the NOD Mouse Accelerates Type 1 Diabetes Development</i>

#### Session 3 - Neuroscience/ Diabetes Complications

Moderator: Hyun Cheol Roh, PhD

<i>Patrick Antonellis</i>	<i>Dysregulation of hedgehog signaling in adult neurons results in obesity</i>
<i>Ruchi Bansal</i>	<i>Ciliary GPCR Signaling in Hypothalamic Neurons</i>
<i>Pei-Chieh</i>	<i>Sustained activation of Notch signaling maintains tumor-initiating cells in a murine model of liposarcoma</i>
<i>Nirupama Devanathan</i>	<i>Understanding Phosphatidylinositol Phosphorylation in Hyperglycemic Related Breast Cancer</i>
<i>John Damrath</i>	<i>Skeletal and Systemic Phenotype of a Combined Model of Type 1 Diabetes and Chronic Kidney Disease in Mice</i>

#### Session 4 - Adipose tissue/

Moderator: Nuria Morral, PhD

<i>Rachel Morrison</i>	<i>Characterizing the Macrophage Response to Type I Oligomeric Collagen</i>
<i>Chris Arnold</i>	<i>Ossabaw swine with an impaired function AMP kinase mutation exhibit no preconditioning to myocardial ischemia</i>
<i>Zhihao Jia, PhD</i>	<i>Protein arginine methyltransferase PRMT5 regulates fatty acid metabolism and lipid droplet biogenesis in white adipose tissues</i>
<i>Lindsey Kennedy, PhD</i>	<i>Mast Cell-Dependent Lipid Peroxidation Induces Ductular Reaction and Microvesicular Steatosis in Non-Alcoholic Fatty Liver Disease</i>
<i>Hyeong-Geug Kim, PhD</i>	<i>Sestrin proteins protect the liver against lipotoxicity by suppressing the c-Jun N-terminal kinases</i>

#### Session 5 - Islet Biology

Moderator: Jason Spaeth, PhD

<i>Rebecca Davidson</i>	<i>The Mechanistic Contribution of Swi/Snf on the Specification, Expansion, and Differentiation of Pancreatic Endocrine Progenitor Cells</i>
<i>Charanya Muralidharan</i>	<i>Beta-Cell Autophagy Is Impaired in Type 1 Diabetes</i>
<i>Paul Sohn</i>	<i>Loss of STIM1 Leads to Pancreatic Beta Cell Dysfunction and Dedifferentiation in Female Mice</i>
<i>Yen-Shan Chen, PhD</i>	<i>Device-Driven Protein Engineering with Application to Insulin and Glucagon</i>
<i>Craig Connors</i>	<i>Deoxyhypusine synthase provides a critical function to protect the beta cell from dysfunction and diabetes</i>