

DMICC WORKSHOP ON RESEARCH SUPPORTED BY THE *SPECIAL STATUTORY FUNDING PROGRAM FOR TYPE 1 DIABETES RESEARCH*

AGENDA

June 6

- 8:15-8:25 am** **Welcome and Introduction**
Griffin Rodgers, M.D., M.A.C.P., Director, NIDDK
- 8:25-8:45 am** **Overview of the Special Statutory Funding Program for Type 1 Diabetes Research**
Judith Fradkin, M.D., Director, Division of Diabetes, Endocrinology, & Metabolic Diseases, NIDDK

TOPIC 1: ARTIFICIAL PANCREAS

Primary Discussants: **Edward Damiano, Ph.D.; Robert Sherwin, M.D.**

- 8:45-8:55 am** **Current Efforts in Artificial Pancreas**
Judith Fradkin, M.D., Director, Division of Diabetes, Endocrinology, & Metabolic Diseases, NIDDK
- 8:55-9:10 am** **Proposal 1: Type 1 Diabetes-Impact Awards on the Development of an Artificial Pancreas: Expansion of Support for the Testing of Current Novel Closed-Loop Systems Through Clinical, Behavioral, and Physiological Studies**
Guillermo Arreaza, M.D., Program Director, Clinical Immunology of Diabetes, Division of Diabetes, Endocrinology, & Metabolic Diseases, NIDDK
Primary discussant: Dr. Sherwin
- 9:10-9:25 am** **Proposal 2: Towards an Artificial Pancreas: Expansion of Support for Research to Develop New Therapeutics and Monitoring Technologies for Type 1 Diabetes**
Guillermo Arreaza, M.D., Program Director, Clinical Immunology of Diabetes, Division of Diabetes, Endocrinology, & Metabolic Diseases, NIDDK
Primary discussant: Dr. Damiano
- 9:25-9:40 am** **Topic 1 panel discussion led by primary discussants**
- 9:40-9:55 am** **BREAK**

TOPIC 2: AUTOIMMUNE ETIOLOGY AND EPIDEMIOLOGY

Primary Discussants: **Jeffrey Bluestone, Ph.D.; John Buse, M.D., Ph.D.; Robert Eckel, M.D.; Mark Espeland, Ph.D.; Ronald Gill, Ph.D.; Georgeanna Klingensmith, M.D.; Rudolph Leibel, M.D., John Looney, M.D.; James Neaton, Ph.D.; Robert Sherwin, M.D.; Megan Sykes, M.D.**

- 9:55-10:05 am** **Current Efforts in Autoimmune Etiology and Epidemiology**
Judith Fradkin, M.D., Director, Division of Diabetes, Endocrinology, & Metabolic Diseases, NIDDK
- 10:05-10:20 am** **Proposal 1: Function of Non-MHC Loci for Type 1 Diabetes**
Beena Akolkar, Ph.D., Senior Advisor, Immunopathogenesis and Genetics of Type 1 Diabetes, Division of Diabetes, Endocrinology, & Metabolic Diseases, NIDDK
Primary discussants: Dr. Bluestone, Dr. Leibel

- 10:20-10:35 am** **Proposal 2: The Environmental Determinants of Diabetes in the Young**
 Beena Akolkar, Ph.D., Senior Advisor, Immunopathogenesis and Genetics of Type 1 Diabetes, Division of Diabetes, Endocrinology, & Metabolic Diseases, NIDDK
Primary discussant: Dr. Bluestone
- 10:35-10:50 am** **Proposal 3: Research Using Biosamples from Selected Type 1 Diabetes Clinical Studies**
 Lisa Spain, Ph.D., Program Director, Immunobiology of Type 1 Diabetes and Autoimmune Endocrine Diseases, Division of Diabetes, Endocrinology, & Metabolic Diseases, NIDDK
Primary discussant: Dr. Sykes
- 10:50-11:05 am** **Proposal 4: Research Using Subjects from Selected Type 1 Diabetes Clinical Studies (Living Biobank)**
 Lisa Spain, Ph.D., Program Director, Immunobiology of Type 1 Diabetes and Autoimmune Endocrine Diseases, Division of Diabetes, Endocrinology, & Metabolic Diseases, NIDDK
Primary discussant: Dr. Looney
- 11:05-11:45 am** **Proposal 5: Type 1 Diabetes TrialNet**
 Lisa Spain, Ph.D., Program Director, Immunobiology of Type 1 Diabetes and Autoimmune Endocrine Diseases, Division of Diabetes, Endocrinology, & Metabolic Diseases, NIDDK
Primary discussants: Dr. Looney, Dr. Gill
- 11:45-12:00 pm** **Proposal 6: Treatment of Silent Type 1 Diabetes**
 Beena Akolkar, Ph.D., Senior Advisor, Immunopathogenesis and Genetics of Type 1 Diabetes, Division of Diabetes, Endocrinology, & Metabolic Diseases, NIDDK
Primary discussant: Dr. Sherwin
- 12:00-12:45 pm** **LUNCH**
- 12:45-1:10 pm** **Proposal 7a: Immune Tolerance Network**
 James McNamara, M.D., Acting Associate Director, Clinical Research Operations Program, Division of Allergy, Immunology, and Transplantation, NIAID
Primary discussants: Dr. Buse, Dr. Looney
- 1:10-1:25 pm** **Proposal 7b: ITN NOD Preclinical Consortium**
 Kasia Bourcier, Ph.D., Program Officer, Autoimmunity and Mucosal Immunology Branch, Division of Allergy, Immunology, and Transplantation, NIAID
Primary discussant: Dr. Sykes
- 1:25-1:40 pm** **Proposal 8: Discovery of Adjuvants that Potentiate Antigen-Specific Immune Tolerance**
 Wolfgang Leitner, M.Sc., Ph.D., Program Officer, Innate Immunity Section, Basic Immunology Branch, Division of Allergy, Immunology, and Transplantation, NIAID
Primary discussant: Dr. Bluestone
- 1:40-2:05 pm** **Proposal 9: Search for Diabetes in Youth**
 Giuseppina Imperatore, M.D., Ph.D., Epidemiology Team Lead, Division of Diabetes Translation, Centers for Disease Control and Prevention

Primary discussants: Dr. Eckel, Dr. Neaton

- 2:05-2:20 pm** **Proposal 10: Use of Electronic Health Information for Population Surveillance of Type 1 Diabetes in Children and Young Adults: A Feasibility Study**
Sharon Saydah, Ph.D., CDR USPHS, Senior Scientist, Division of Diabetes Translation, Centers for Disease Control and Prevention
Primary discussants: Dr. Espeland, Dr. Klingensmith
- 2:20-2:45 pm** **Topic 2 panel discussion led by primary discussants**
- 2:45-3:00 pm** **BREAK**

TOPIC 3: CLINICAL MANAGEMENT

Primary Discussants: **John Buse, M.D., Ph.D** , **Georgeanna Klingensmith, M.D.**; **Timothy Wysocki, Ph.D.**

- 3:00-3:10 pm** **Current Efforts in Clinical Management**
Judith Fradkin, M.D., Director, Division of Diabetes, Endocrinology, & Metabolic Diseases, NIDDK
- 3:10-3:25 pm** **Proposal 1: Improving Adherence in Young Children with Type 1 Diabetes**
Christine Hunter, Ph.D., Director of Behavioral Research, Division of Diabetes, Endocrinology, & Metabolic Diseases, NIDDK
Primary discussant: Dr. Klingensmith
- 3:25-3:40 pm** **Proposal 2: Understanding Barriers and Facilitators to Type 1 Diabetes Management in Adults**
Christine Hunter, Ph.D., Director of Behavioral Research, Division of Diabetes, Endocrinology, & Metabolic Diseases, NIDDK
Primary discussant: Dr. Buse
- 3:40-3:55 pm** **Proposal 3: Training for Behavioral Scientists in Type 1 Diabetes**
Christine Hunter, Ph.D., Director of Behavioral Research, Division of Diabetes, Endocrinology, & Metabolic Diseases, NIDDK
Primary discussant: Dr. Wysocki
- 3:55-4:10 pm** **Topic 3 panel discussion led by primary discussants**

TOPIC 4: RESOURCES

Primary Discussants: **Jeffrey Bluestone, Ph.D.**; **Ronald Gill, Ph.D.**

- 4:10-4:20 pm** **Current Efforts in Resources**
Judith Fradkin, M.D., Director, Division of Diabetes, Endocrinology, & Metabolic Diseases, NIDDK
- 4:20-4:35 pm** **Proposal 1: Harvesting the Neuroimaging Cornucopia for Pancreatic Islet Imaging Reagents**
Maren Laughlin, Ph.D., Senior Advisor for Integrative Metabolism, Division of Diabetes, Endocrinology, & Metabolic Diseases, NIDDK
Primary discussant: Dr. Gill
- 4:35-4:50 pm** **Proposal 3: Type 1 Diabetes-Rapid Access to Intervention Development**

Aaron Pawlyk, Ph.D., Program Director, Pharmacogenomics and Drug Discovery, Division of Diabetes, Endocrinology, & Metabolic Diseases, NIDDK
Primary discussant: Dr. Gill

- 4:50-5:15 pm** **Proposal 2: Supplemental Type 1 Diabetes Projects Within the NIH Centers for Accelerated Innovations**
Kristin Abraham, Ph.D., Senior Advisor, Model Systems and Resources, Division of Diabetes, Endocrinology, & Metabolic Diseases, NIDDK
Primary discussant: Dr. Bluestone
- 5:15-5:30 pm** **Topic 4 panel discussion led by primary discussants**
- 5:30-6:00 pm** **Day 1 wrap-up**

June 7

TOPIC 5: DIABETES COMPLICATIONS

Primary Discussants: **Matthew Breyer, M.D.; Robert Eckel, M.D.; Eva Feldman, M.D., Ph.D.; Rudolph Leibel, M.D.; John Penn, Ph.D.; Ann Marie Schmidt, M.D., Robert Sherwin, M.D., James Neaton, Ph.D**

- 8:15-8:25 am** **Current Efforts in Diabetes Complications**
Judith Fradkin, M.D., Director, Division of Diabetes, Endocrinology, & Metabolic Diseases, NIDDK
- 8:25-8:40 am** **Proposal 1: Biomarkers for Type 1 Diabetes Complications Through Imaging the Eye**
Teresa Jones, M.D., Program Director for Diabetic Complications, Division of Diabetes, Endocrinology, & Metabolic Diseases, NIDDK
Primary discussant: Dr. Penn
- 8:40-8:55 am** **Proposal 2: Consultancy for Therapy Development for Diabetic Neuropathy and Diabetic Wound Healing**
Teresa Jones, M.D., Program Director for Diabetic Complications, Division of Diabetes, Endocrinology, & Metabolic Diseases, NIDDK
Primary discussant: Dr. Feldman
- 8:55-9:10 am** **Proposal 3: Type 1 Diabetes Impact Awards in Diabetic Complications Research**
Kristin Abraham, Ph.D., Senior Advisor, Model Systems and Resources, Division of Diabetes, Endocrinology, & Metabolic Diseases, NIDDK
Primary discussant: Dr. Schmidt
- 9:10-9:25 am** **Proposal 4: Genetic Variation Related to Protection or Risk in Extreme Type 1 Diabetic Nephropathy Phenotypes**
Catherine McKeon, Ph.D., Senior Advisor for Genetic Research, Division of Diabetes, Endocrinology, & Metabolic Diseases, NIDDK
Primary discussant: Dr. Leibel
- 9:25-9:40 am** **Proposal 5: Small Business Innovation Research to Develop New Diagnostic, Monitoring, and Therapeutics Technologies for the Complications of Type 1 Diabetes**
Guillermo Arreaza, M.D., Program Director, Clinical Immunology of Diabetes, Division of Diabetes, Endocrinology, & Metabolic Diseases, NIDDK
Primary discussant: Dr. Breyer

- 9:40-9:55 am** **Proposal 6: Clinical Trials for Cardiovascular Disease in Type 1 Diabetes**
Teresa Jones, M.D., Program Director for Diabetic Complications, Division of Diabetes, Endocrinology, & Metabolic Diseases, NIDDK
Primary discussants: Dr. Eckel, Dr. Schmidt
- 9:55-10:10 am** **Proposal 7: Clinical Trials to Study the Neurological Impact of Dysglycemia in Type 1 Diabetes**
Karen Winer, M.D., Director of Pediatric Endocrinology, Pediatric Growth and Nutrition Branch, NICHD
Primary discussants: Dr. Feldman, Dr. Sherwin
- 10:10-10:25 am** **BREAK**
- 10:25-10:50 am** **Proposal 8: Diabetic Retinopathy Clinical Research Network**
Frederick Ferris, III, M.D., Clinical Director, Division of Intramural Research, NEI
Primary discussants: Dr. Neaton, Dr. Penn
- 10:50-11:20 am** **Topic 5 panel discussion led by primary discussants**
- TOPIC 6: BETA CELL BIOLOGY**
Primary Discussants: **Domenico Accili, M.D.; Mark Espeland, Ph.D.; Ronald Gill, Ph.D.; Rudolph Leibel, M.D.; Megan Sykes, M.D.**
- 11:20-11:30 am** **Current Efforts in Beta Cell Biology**
Judith Fradkin, M.D., Director, Division of Diabetes, Endocrinology, & Metabolic Diseases, NIDDK
- 11:30-11:45 am** **Proposal 1: Glucagon and the Glycemic Dysregulation of Type 1 Diabetes**
Maren Laughlin, Ph.D., Senior Advisor for Integrative Metabolism, Division of Diabetes, Endocrinology, & Metabolic Diseases, NIDDK
Primary discussant: Dr. Leibel
- 11:45- 12:00 pm** **Proposal 2: Imaging Pancreatic Beta Cell Mass and Function**
Maren Laughlin, Ph.D., Senior Advisor for Integrative Metabolism, Division of Diabetes, Endocrinology, & Metabolic Diseases, NIDDK
Primary discussant: Dr. Accili
- 12:00-12:45 pm** **LUNCH**
- 12:45-1:00 pm** **Proposal 3: Human Islet Research Network Overview**
Olivier Blondel, Ph.D., Director, Endocrine Systems Biology Program, Division of Diabetes, Endocrinology, & Metabolic Diseases, NIDDK
- 1:00-1:15 pm** **Proposal 3a: Human Islet Research Network Coordinating Center**
Olivier Blondel, Ph.D., Director, Endocrine Systems Biology Program, Division of Diabetes, Endocrinology, & Metabolic Diseases, NIDDK
Primary discussant: Dr. Espeland
- 1:15-1:30 pm** **Proposal 3b: Consortium on Regeneration, Reprogramming, and Targeting**
Olivier Blondel, Ph.D., Director, Endocrine Systems Biology Program, Division of Diabetes, Endocrinology, & Metabolic Diseases, NIDDK

Primary discussant: Dr. Accili

1:30-1:45 pm

Proposal 3c: Consortium on Human Islet Biomimetics

Olivier Blondel, Ph.D., Director, Endocrine Systems Biology Program, Division of Diabetes, Endocrinology, & Metabolic Diseases, NIDDK

Primary discussant: Dr. Sykes

1:45-2:00 pm

Proposal 3d: Consortium for Modeling Autoimmune Interactions

Olivier Blondel, Ph.D., Director, Endocrine Systems Biology Program, Division of Diabetes, Endocrinology, & Metabolic Diseases, NIDDK

Primary discussant: Dr. Gill

2:00-2:15 pm

Proposal 3e: Consortium on Measuring Beta Cell Death and Survival

Olivier Blondel, Ph.D., Director, Endocrine Systems Biology Program, Division of Diabetes, Endocrinology, & Metabolic Diseases, NIDDK

Primary discussant: Dr. Accili

2:15-2:30 pm

Proposal 3f: Bioengineering and Synthetic Biology Program

Olivier Blondel, Ph.D., Director, Endocrine Systems Biology Program, Division of Diabetes, Endocrinology, & Metabolic Diseases, NIDDK

Primary discussant: Dr. Gill

2:30-2:50 pm

Topic 6 panel discussion led by primary discussants

2:50-3:00 pm

Patient Perspective-Judy Hunt

3:00-4:00 pm

Closing discussion led by Dr. Judith Fradkin, NIDDK