LaunchPad for Diabetes Funded Projects 2015 - 2019

2019

Automated Meal Detection & Appropriate Insulin Delivery for Adolescents with Type 1 Diabetes: Connecting the Klue Watch & UVa Artificial Pancreas System (revised after Medtronic purchased Klue)
Mark DeBoer, MD, Department of Pediatric Endocrinology
Marc Breton, PhD, Department of Psychiatry and Neurobehavioral Sciences
Sue Brown, MD, Department of Endocrinology and Metabolism

Exploration of LacripepTM Inspired 'Tearpep3/C-6' for the Reversal of Type 1 Diabetes
Gordon Laurie, PhD, Department of Cell Biology
Ken Brayman, MD, Department of Surgery

Bispecific Antibody Targeted T Regulatory Cells (TREGs) for Type 1 Diabetes
Larry Lum, MD, Department of Hematology and Oncology
David Repaske, MD, Department of Pediatric Endocrinology
Archana Thakur, PhD, Department of Hematology and Oncology
Udai Singh, PhD, Department of Hematology and Oncology

(Renewal) Novel Cytokine Therapy for Type 1 Diabetes
Rahul Sharma, PhD, Center for Inflammation and Regeneration
Mark Okusa, MD, Department of Nephrology

(Renewal) AAV mediated gene therapy for diabetes
Edward Perez-Reyes, PhD, Department of Pharmacology
Jennifer Kirby, MD, Department of Endocrinology and Metabolism
Thurl Harris, PhD, Department of Pharmacology

A scaleable microfluidic approach for controlled manufacturing of microcapsulated human islets for transplantation in T1D therapy
Melur Ramasubramanian, PhD, Vice President for Research
Jose Oberholzer, MD, Department of Surgery, Director of Transplant Center
Yong Wang, PhD, Department of Surgery - Transplant Surgery

2018

Renewal: AAV mediated gene therapy for diabetes
Edward Perez-Reyes PhD-Pharmacology
Jennifer Kirby MD-Endocrinology and Metabolism
Thurl Harris, PhD-Pharmacology

Renewal: Novel Cytokine Therapy for Type 1 Diabetes
Rahul Sharma PhD-Center for Inflammation and Regeneration
Mark Okusa MD-Nephrology

A Multiparametric Biosensor Assay for Standardized Characterization of Islets
Huiwang Ai, PhD, Molecular Physiology & Biological Physics
Jose Oberholzer, MD, Chief of Transplant and Director of Transplant Center
Yong Wang, PhD, Transplant Surgery

Exploration of Lacripep for Pancreatic Islet Expansion, Survival & Post Transplantation Immunosuppression

Gordon Laurie, PhD, Cell Biology
Ken Brayman, MD, Surgery

BAFF 60mer as a novel therapeutic target for Type 1 diabetes
Akshaya Meher, PhD, Pharmacology & CVRC
Coleen McNamara, MD, Medicine: Cardiovascular

2017

Renewal: Novel Cytokine Therapy for Type 1 Diabetes
Rahul Sharma PhD, Center for Inflammation and Regeneration
Mark Okusa MD, Nephrology

Microfluidic Selection of Functional Islets for Transplantation in Diabetes
Shayn Peirce-Cottler PhD, Biomedical Engineering
Nathan Swami, PhD, Electrical and Computer Engineering
Ken Brayman MD, Surgery.

Improve islet transplant outcomes for Type 1 diabetes by minimizing rapamycin immunotoxicity
Jose Oberholzer MD, Chief of Transplant and Director of Transplant Center
Yong Wang, PhD, Transplant Surgery

AAV mediated gene therapy for diabetes
Edward Perez-Reyes PhD, Pharmacology
Jennifer Kirby MD, Endocrinology and Metabolism
Thurl Harris, PhD, Pharmacology.

Enhancement of glucagon counterregulation in type 1 diabetes by basel amylin replacement
Leon Farhi, PhD- Endocrinology and Metabolism
Stacy Anderson, MD-Medical Director of the Center for Diabetes Technology.

2016

RENEWAL: Targeting adipose tissue lipolysis to prevent postoperative hyperglycemia and improve recovery in rodent model of T1DM
Thurl Harris PhD, Pharmacology
Alex Kadl MD, Pulmonary and Critical Care Medicine

Microfluidic Selection of Functional Islets for Transplantation in Diabetes
Shayn Peirce-Cottler, PhD, Biomedical Engineering
Nathan Swami, PhD, Electrical Engineering
Ken Brayman, MD, Surgery

Novel Cytokine Therapy for Type-1 Diabetes
Rahul Sharma, PhD, Nephrology
Mark Okusa, MD, Nephrology

Role of Extracellular Vesicle for Vascular Health in Adults with Prediabetes
Steven Malin, PhD, Kinesiology
Uta Erdbrugger, MD, Nephrology

Modulating Diacylglycerol Kinase Activity to Enhance Insulin Secretion in Type 2 Diabetes (pilot project)
Ken Hsu, PhD, Chemistry & Pharmacology

Application of Machine Learning to Identify Diabetic Patients at Risk for High Atherosclerotic Burden in Coronary Arteries (pilot project)
Michael Lawrence, PhD, Biomedical Engineering
Coleen McNamara, MD, Cardiovascular Medicine

2015

Development of Dendritic cell (DC) therapeutic intervention for type 1 Diabetes (T1D)
Amandeep Bajwa PhD, Nephrology
Mark Okusa MD, Nephrology

Design and Testing of a Closed-Loop System for Control of Type 1 Diabetes in Young Children 5-8 years old
Mark DeBoer MD, Pediatrics-Division of Pediatric Endocrinology & Diabetes
Daniel Chernavvsky MD, Psychiatry and NB Sciences

Treatment of diabetic retinopathy with microRNA-let-7b inhibitor
Bijan Dey PhD, Biochemistry and Molecular Genetics
Paul Yates MD, Ophthalmology

Targeting adipose tissue lipolysis to prevent postoperative hyperglycemia and improve recovery in rodent model of T1DM
Thurl Harris PhD, Pharmacology
Alex Kadl MD, Pulmonary and Critical Care Medicine