

Date	Name (First)	Name (Last)	Supervisor Name	Title of Paper or Work In Progress
2024-03-14	Jamie	Chu	James Johnson	Repression of latent NF-kB enhancers by PDX1 regulates b cell functional heterogeneity
2024-03-12	Jane	Veighe	Dr. Bruce Verchere	Identification of type 2 diabetes- and obesity-associated human β -cells using deep transfer learning
2024-03-05	Daniel	Pasula	Dan Luciani	Therapeutic targeting of cellular senescence in diabetic macular edema: preclinical and phase 1 trial results
2024-02-22	Puja	Biswas	Elizabeth Rideout	Personalized Molecular Signatures of Insulin Resistance and Type 2 Diabetes
2024-02-20	Noa	Gang	Jenny Bruin	Readily releasable β cells with tight Ca ²⁺ -exocytosis coupling dictate biphasic glucose-stimulated insulin secretion
2024-02-13	Bruno Felipe	Freitas	Levings and Verchere	Macrophages heterogeneity and significance during human fetal pancreatic development
2024-02-06	Carmen	Bayly	Francis Lynn	Comparative and integrative single cell analysis reveals new insights into the transcriptional immaturity of stem cell-derived β cells
2024-02-08	Jelena	Kolic	Jim Johnson	Lysophosphatidylinositols Are Upregulated After Human β -Cell Loss and Potentiate Insulin Release
2024-02-01	Sing-Young	Chen	Johnson/Rideout	Sustained hyperglycemia specifically targets translation of mRNAs for insulin secretion
2024-01-30	Makenna	Cameron	William Gibson and Daniel Gamu	Transplantation of beige adipose organoids fabricated using adipose acellular matrix hydrogel improves metabolic dysfunction in high-fat diet-induced obesity and type 2 diabetes mice
2024-01-23	Raelyn	Gallant	Dr. Bruce Verchere	GPR92 activation in islet macrophages controls β cell function in a diet-induced obesity model
2024-01-18	Howard	Cen	James Johnson	An integrated single cell and spatial transcriptomic map of human white adipose tissue
2023-12-12	Samantha	Mar	Francis Lynn	Human Pancreatic α -Cell Heterogeneity and Trajectory Inference Analysis Using Integrated Single Cell- and Single Nucleus-RNA Sequencing Platforms
2023-12-05	Courtney	Ostromecki	Bruce Verchere	Targeting pro-inflammatory effector functions of islet macrophages using lipid nanoparticles to prevent diabetes
2023-11-28	Ekaterina	Filatov	Francis Lynn	Follicle-stimulating hormone orchestrates glucose-stimulated insulin secretion of pancreatic islets
2023-11-30	Jia	Zhao	Tim Kieffer	Enrichment of stem cell-derived pancreatic beta-like cells and controlled graft size through pharmacological removal of proliferating cells
2023-12-07	Jamie	Chu	James Johnson	Illuminating the complete β -cell mass of the human pancreas - signifying a new view on the islets of Langerhans
2023-11-09	Natalie	Nahirney	James Johnson	TFEB and TFE3 control glucose homeostasis by regulating insulin gene expression
2023-11-07	Karoliina	Tuomela	Levings	Lymph node sharing between pancreas, gut, and liver leads to immune crosstalk and regulation of pancreatic autoimmunity
2023-10-24	Katarina	Zosel	Francis Lynn	Inferring regulators of cell identity in the human adult pancreas
2023-10-19	Mikky	Atser	Dr. Jim Johnson	Lactate activates the mitochondrial electron transport chain independent of its metabolism
2023-10-05	Alexander	Garner	Tim Kieffer & Francis Lynn	Single Cell RNA-Seq Analysis of Regenerative Drug-Treated Human Pancreatic Islets Identifies A Cycling Alpha Cell Population As Key Beta Cell Progenitors
2023-10-03	Sonya	Mangat	Levings	Elevated glucose metabolism driving pro-inflammatory response in B cells contributes to the progression of type 1 diabetes
2023-09-26	Bruno	Freitas	Levings and Verchere	Improving stem cell derived beta cell differentiation, maturation and function with regenerative macrophages
2023-09-21	Liam	Hall	James Johnson	Moderate-intensity endurance training improves late phase β -cell function in adults with type 2 diabetes
2023-06-15	Jamie	Chu	James Johnson	Single-Cell Heterogeneity Analysis and CRISPR Screen Identify Key β -Cell-Specific Disease Genes
2023-05-30	Rana	Minab	Bruce Verchere	Fecal microbiome transplantation for type 1 diabetes therapy
2023-06-01	Jia	Zhao	Tim Kieffer	Single-nucleus multi-omics of human stem cell-derived islets identifies deficiencies in lineage specification
2023-05-18	Priye	Iworima	Dr. Timothy Kieffer	Understanding cell fate acquisition in stem-cell-derived pancreatic islets using single-cell multiome-inferred regulomes
2023-05-16	Raelyn	Gallant	Dr. Bruce Verchere	Polarized macrophages promote gestational beta cell growth through extracellular signal-regulated kinase 5 signalling
2023-05-09	Yi-Chun	Chen	Dr. Bruce Verchere	Prolonged culture of human pancreatic islets under glucotoxic conditions changes their acute beta cell calcium and insulin secretion glucose response curves from sigmoid to bell-shaped
2023-05-04	Alexander	Garner	Tim Kieffer & Francis Lynn	Stomach-derived human insulin-secreting organoids restore glucose homeostasis
2023-05-02	Lindsay	Pallo	Bruce Verchere	Ionizable lipid nanoparticles deliver mRNA to pancreatic β cells via macrophage-mediated gene transfer
2023-04-27	Mikky	Atser	Dr. James D. Johnson	Pyruvate-supported flux through medium-chain ketothiolase promotes mitochondrial lipid tolerance in cardiac and skeletal muscles
2023-04-04	Saumadritaa	Kar	Bruce Verchere	Direct reprogramming of human fibroblasts into insulin-producing cells using transcription factors
2023-03-15	Aurora	Mattison	Dr. Jim Johnson	Effect of Verapamil on Pancreatic Beta Cell Function in Newly Diagnosed Pediatric Type 1 Diabetes
2023-03-14	Helen	Huang	Francis Lynn	Development of a scalable method to isolate subsets of stem cell-derived pancreatic islet cells
2023-03-09	Amanda	Rahardjo	Jim Johnson	A single-cell human islet interactome atlas identifies disrupted autocrine and paracrine communications in type 2 diabetes
2023-03-07	Jane	Veighe	Dr. Bruce Verchere	Single-cell multi-omics analysis of human pancreatic islets reveals novel cellular states in type 1 diabetes
2023-02-28	Daniel	Pasula	Dan Luciani	Clearance of p16Ink4a-positive cells in a mouse transgenic model does not change β -cell mass and has limited effects on their proliferative capacity
2023-03-02	Amanda	Rahardjo	Jim Johnson	Palmitoylation couples insulin hypersecretion with β cell failure in diabetes
2023-03-02	Jelena	Kolic	Dr. James D. Johnson	Palmitoylation couples insulin hypersecretion with beta cell failure in diabetes
2023-02-23	Colin	Miller	Liz Rideout	A fluorescent perlipin 2 knock-in mouse model visualizes lipid droplets in the developing and adult brain
2023-02-09	Puja	Biswas	Elizabeth Rideout	Insulin signaling pathway promotes increased body fat in female Drosophila
2023-02-07	Samantha	Mar	Francis Lynn	Inhibition of stearyl-CoA desaturase 1 in the mouse impairs pancreatic islet morphogenesis and promotes loss of β -cell identity and α -cell expansion in the mature pancreas
2023-01-24	Marcus	Woodley	Francis Lynn	Pancreatic alpha cell glucagon-liver FGF21 axis regulates beta cell regeneration in a mouse model of type 2 diabetes
2023-01-26	Howard	Cen	James Johnson	The dynamic clustering of insulin receptor underlies its signaling and is disrupted in insulin resistance
2023-01-17	Ekaterina	Filatov	Francis Lynn	Co-transplantation of pancreatic islets and microvascular fragments effectively restores normoglycemia in diabetic mice