

Tuesday, February 19, 2019					
Time		Function			
10:00 AM – 6:45 PM		REGISTRATION			
12:00 PM – 12:15 PM		Opening Remarks: Mark Atkinson, PhD The University of Florida nPOD Executive Director			
		Cutting Edge Seminar I: Biology and Implications for Type 1 Diabetes Chairs: Marcella Brissova & Patrick MacDonald			
	12:15 PM – 12:45 PM	Peter Arvan, MD, PhD University of Michigan The Unfolding Story About Proinsulin	Diplomat		
12:15 PM – 2:15 PM	12:45 PM – 1:15 PM	Bruce Verchere, PhD University of British Columbia IAPP: trigger and biomarker in diabetes?	Ballroom 1, 2, 3 (Convention Center, 2 nd Floor)		
	1:15 PM – 1:45 PM	Emily Sims, MD Indiana University Circulating proinsulin levels can provide insight into beta cell stress during the evolution of T1D			
1:45 PM – 2:15 PM	Discussion Session I: Islet Cell Biology and Implications for Type 1 Diabetes Led by: Marcella Brissova & Patrick MacDonald		Diplomat Ballroom 1, 2, 3 (Convention Center, 2 nd Floor)		
2:15 PM – 2:45 PM		BREAK			
2:45 PM – 4:00 PM	Oral Abstracts I: Lessons from NOD Mice Co-Chairs: Maggie Morris and Matthias von Herrath				

	2:45 PM - 3:00 PM - 3:15 PM - 3:30 PM - 3:30 PM - 3:45 PM	Mihaela Stefan, PhD Albert Einstein College of Medicine Mechanisms that Control Changes in DNA Methylation and Hydroxymethylation induced by Interferon alpha in B cells: Implications for Type 1 Diabetes Jamie Felton, MD Indiana University Metabolic Phenotyping of Islet-Infiltrating Lymphocytes in Type 1 Diabetes Luc Teyton, MD, PhD Scripps Research Role of Dietary Insults and Lymphangiogenesis in the Initiation of T1D in NOD Mice and Human Todd Zion, PhD Akston Biosciences Corporation An Insulin-Specific B Cell Deletional	Diplomat Ballroom 1, 2, 3 (Convention Center, 2 nd Floor)
	3:45 PM – 4:00 PM	Immunotherapy, AKS107, for Prevention of Type 1 Diabetes Karsten Buschard, MD Bartholin Institute Sphingolipids in the pathogenesis of Type 1 Diabetes	
		Oral Abstracts II: Immunology Co-Chairs: Eddie James & Katie Haskins	
4:00 PM – 5:00 PM	4:00 PM – 4:15 PM	Rocky Baker, PhD University of Colorado Characterization of T Cells Reactive to Hybrid Insulin Peptides in Type 1 Diabetes Patients	Diplomat Ballroom 1, 2, 3 (Convention
	4:15 PM – 4:30 PM	Sarah Richardson, PhD University of Exeter Comprehensive histopathology of insulitis in young-onset Type 1 diabetes: To 'B' or not to 'B' – that is the question?	Center, 2 nd Floor)

	4:30 PM – 4:45 PM	Klaus Kaestner, PhD University of Pennsylvania Multiplexed in Situ Imaging Mass Cytometry Analysis of the Human Endocrine Pancreas and Immune System in Type 1 Diabetes	
	4:45 PM – 5:00 PM	Brian Fife, PhD University of Minnesota Interferon-Gamma Drives Programmed Death-Ligand 1 Expression on Islet β Cells to Limit T Cell Function During Autoimmune Diabetes	
	5:00 PM – 5:15 PM	Alberto Japp, PhD University of Pennsylvania Tissue-Resident T1D Specific Memory CD8+ T Cells are Enriched in Pancreatic Islets and Draining Lymph Nodes of Diabetic and Auto- Antibody Positive Donors	
5:15 PM – 6:00 PM		BREAK	
6:00 PM – 6:45 PM	RECEPTION (hors d'oeuvres provided)		Diplomat Foyer (Convention Center, 2 nd Floor)
6:45 PM – 7:30 PM	George Eisenbarth Memorial Lecture: Emil Unanue, MD Washington University Beta Cell Crinosomes Maintain Homeostasis but Promote Autoimmunity		Diplomat Ballroom 1, 2, 3 (Convention Center, 2 nd Floor)
7:30 PM		DINNER (on your own)	

Wednesday, February 20, 2019				
Time		Function		
7:00 AM – 5:00 PM		REGISTRATION	Diplomat Foyer (Convention Center, 2 nd Floor)	
7:00 AM – 8:00 AM		BREAKFAST	Atlantic Ballroom 2 & 3 (Convention Center, 2 nd Floor)	
		Keynote Address:	Diplomat	
8:00 AM – 8:45 AM		Michael Snyder, PhD Stanford University Applying Big Data to Human Health		
		Cutting Edge Seminar II: Autoimmunity / Pathogenesis Co-Chairs: Bart Roep & Alice Long		
0.45 484	8:45 AM – 9:15 AM	Roberto Mallone, MD, PhD INSERM Cochin Institute Of Pancreas and Not Blood: A T-Cell Viewpoint	Diplomat	
8:45 AM – 10:15 AM	9:15 AM – 9:45 AM	Jane Buckner, MD Benaroya Research Institute The Role of IL-6 in T1D, from Genetics to Intervention	Ballroom 1, 2, 3 (Convention Center, 2 nd Floor)	
	9:45 AM – 10:15 AM	Yuval Dor, PhD The Hebrew University of Jerusalem Beta cell derived cell-free DNA		
10:15 AM – 10:30 AM		BREAK		
10:30 AM – 11:00 AM		Discussion Session II: Autoimmunity in Type 1 Diabetes Led by: Bart Roep & Alice Long	Diplomat Ballroom 1, 2, 3 (Convention Center, 2 nd Floor)	

	ı	nPOD Working Group Presentations: nPOD-Autoimmunity Co-Chairs: Todd Brusko & Sally Kent		
	11:00 AM – 11:15 AM	Andrea Vecchione, MSc. San Raffaele Scientific Institute Follicular Regulatory T Cells are Reduced in Pancreatic Lymph Nodes of Patients with T1D		
11:00 AM –	11:15 AM – 11:30 AM	Leeana Peters, MSc University of Florida Unsupervised Clustering of High Parameter Mass Cytometry Data Reveals Immune Heterogeneity in T1D	Diplomat Ballroom 1, 2, 3	
12:00 PM	11:30 AM – 11:45 PM	Sally Kent, PhD University of Massachusetts Integrating what we have learned about islet autoimmunity from blood, lymphoid tissues and pancreas	(Convention Center, 2 nd Floor)	
	11:45 AM – 12:00 PM	Discussion and Future Directions		
12:00 PM – 1:00 PM		LUNCH	Atlantic Ballroom 2 & 3 (Convention Center, 2 nd Floor)	
		Cutting Edge Seminar III: Lessons from Other Diseases Co-Chairs: Jane Buckner & David Leslie		
1:00 PM – 2:30 PM	1:00 PM – 1:30 PM	Antoinette Moran, MD University of Minnesota Cystic Fibrosis Related Diabetes	Diplomat Ballroom 1, 2, 3	
	1:30 PM – 2:00 PM	Kevan Herold, MD Yale University Beta cell responses to inflammatory mediators in checkpoint inhibitor induced diabetes	(Convention Center, 2 nd Floor)	
	2:00 PM – 2:30 PM	Jim Riley, PhD University of Pennsylvania		

		Can CAR expressing T regulatory cells promote durable tolerance of islet transplants?	
2:30 PM – 3:00 PM		Discussion Session III: Lessons from Other Diseases Co-Chairs: Jane Buckner & David Leslie	Diplomat Ballroom 1, 2, 3 (Convention Center, 2 nd Floor)
3:00 PM – 3:15 PM		BREAK	
		Oral Abstracts III: β Cell Biology Co-Chairs: Peter Arvan & Raghu Mirmira	
	3:15 PM – 3:30 PM	Courtney Ackeifi, PhD Icahn School of Medicine at Mount Sinai Dual DYRKIA-GLP1R Modulation Synergistically and Dramatically Increases Human Beta Cell Proliferation and Numbers in Vivo and in Vitro in Normal Islet Donors and in Type 2 Diabetes	
3:15 PM – 4:30 PM	3:30 PM – 3:45 PM	Edward Phelps, PhD University of Florida Mechanism and Effects of Pulsatile GABA Secretion from Cytosolic Pools in the Human Beta Cell	Diplomat Ballroom 1, 2, 3 (Convention Center, 2 nd Floor)
	3:45 PM – 4:00 PM	Irina Stefana, PhD University of Oxford Investigating the Role of Nuclear Versus Cytoplasmic Hyperphosphorylated Tau in Human β Cells During Ageing and Diabetes	
	4:00 PM – 4:15 PM	Farooq Sayed, PhD Indiana University Comprehensive Analysis of Micro-RNA Expression Profiles in Human Islets and Islet Derived Exosomes During Cytokine Mediated 6 Cell Stress and Death	

	4:15 PM – 4:30 PM	Bart Roep, PhD Beckman Research Institute at City of Hope Expression of Alternatively Spliced Insulin Gene Products in Non-Beta Cells in Human Pancreatic Islets	
4:30 PM – 7:00 PM		FREE TIME	
7:00 PM – 10:00 PM		DINNER & AWARDS CEREMONY nPOD Has Talent IV	South Palm Court (Lobby Level, Outdoors)

Thursday, February 21, 2019					
Time		Function			
7:00 AM – 8:00 AM		BREAKFAST			
		Cutting Edge Seminar IV: Beta Cells / Stem Cells Co-Chairs: David Harlan & Al Powers			
	8:00 AM – 8:30 AM	Les Satin, PhD University of Michigan The Underlying Basis of Pulsatile Insulin Secretion: Mechanisms, Models, and Modes	Diplomat		
8:00 AM – 9:30 AM	8:30 AM – 9:00 AM	Maike Sander, MD University of California, San Diego Insights into islet cell gene regulation from single-cell analyses	Ballroom 1, 2, 3 (Convention Center, 2 nd Floor)		
	9:00 AM – 9:30 AM	Matthias Hebrok, PhD University of California, San Francisco Using Stem Cells to Probe Human Beta Cell Biology			
9:30 AM – 10:00 AM		Discussion Session IV: Beta Cells / Stem Cells Led by: David Harlan & Al Powers			
10:00 AM – 10:15 AM		BREAK			
		nPOD Working Group Presentations: nPOD-Virus Co-Chairs: Maria Craig & Sarah Richardson			
10:15 AM – 11:30 AM	10:15 AM – 10:30 AM	Teresa Rodriguez-Calvo, DVM, PhD Helmholtz Zentrum München The JDRF nPOD-Virus Group: Association of Type 1 Diabetes with Viral Markers as Triggers of Disease	Diplomat Ballroom 1, 2, 3 (Convention Center, 2 nd Floor)		

	10:30 AM – 10:45 AM	Ivan Gerling, PhD University of Tennessee Activation of Toll Like Receptor Pathways in Insulitic Islets of Type 1 Diabetes	
	10:45 AM – 11:00 AM	Antonio Toniolo, PhD Ospedale di Circolo High Frequency Detection of Enteroviruses in Spleen and Peripheral Blood Leukocytes of People with Diabetes of Short and Long Duration	
	11:00 AM – 11:15 AM	Alexia Carré, MSc INSERM Cochin Institute Coxsackievirus-infected human beta cells display selected viral sequences on their HLA Class I molecules	
	Oral Abstracts IV: Pathogenesis Co-Chairs: John Kappler & Malin Flodstrom-Tullberg		
11:30 AM – 12:30 PM	11:30 AM – 11:45 AM	Clive Wasserfall, MSc University of Florida Monogenic Diabetes and Integrative Stress Response Genes are Differentially Expressed in Multifactorial Type 1 Diabetes with a Distinctive Pattern in Autoantibody Positive Human Pancreata	Diplomat Ballroom 1, 2, 3
	11:45 AM – 12:00 PM	Matthias Von Herrath, PhD La Jolla Institute for Immulogy / Novo Nordisk Detection and characterization of antigen- specific CD8 T cells in the exocrine and endocrine pancreas of non-diabetic and diabetic donors	(Convention Center, 2 nd Floor)
	12:00 PM – 12:15 PM	Wei-Jun Qian, PhD Pacific Northwest National Laboratory	

	1:50PM – 2:05 PM	Sirlene Cechin, MBA, PhD & Joana Almaca, PhD University of Miami Assessment of Viability, Endocrine Function and Calcium Signaling in Pancreas Slices Generated at a Remote Site and First Side-By- Side Evaluation of Insulin and Glucagon Secretion in Pancreas Slices and Isolated Islets from the Same Donor	
1:30 PM – 2:45 PM	1:35 PM – 1:50 PM	Christian Cohrs DZD-Paul Langerhans Institute Dresden of the Helmholtz Zentrum Munic Human Pancreas Tissue Slices from nPOD Organ Donors Provide a Comprehensive and Novel Insight into T1D Pathogenesis	Diplomat Ballroom 1, 2, 3 (Convention Center, 2 nd Floor)
	1:30 PM – 1:35 PM	Introduction Stephan Speier, PhD DZD-Paul Langerhans Institute Dresden of the Helmholtz Zentrum Munic	
		nPOD Working Group Presentations: nPOD-Slice p-Chairs: Stephan Speier & Alejandro Caicedo	
12:30 PM – 1:30 PM		LUNCH	Atlantic Ballroom 2 & 3 (Convention Center, 2 nd Floor)
	12:15 PM – 12:30 PM	Adam Swensen, PhD Pacific Northwest National Laboratory Evidence of Incomplete Prohormone Processing in Type 1 Diabetes from Mass Spectrometry Based Proteomics	
		Nanoscale Deep Proteome Profiling of Pancreatic Islets from Presymptomatic Autoantibody Positive and T1D Subjects	

	2:05 PM – 2:20 PM	Edward Phelps, PhD & Clayton Mathews, PhD University of Florida Live Human Pancreas Tissue Slices as a Platform for Investigating the Immunopathological Processes of Type 1 Diabetes			
	2:20 PM – 2:35 PM	Fahd Qadir, MS, DVM University of Miami Long-Term Culture of Human Pancreatic Slices as a Model to Study Real-Time Islet Regeneration			
	2:35 PM – 2:45 PM	Discussion and Future Directions			
2:45 PM – 3:00 PM		BREAK			
		nPOD Working Group Presentations: nPOD-IIP/Autoimmunity II Co-Chairs: Clayton Mathews & Alberto Pugliese			
3:00 PM –	3:00 PM – 3:15 PM	Maki Nakayama, PhD University of Colorado Denver Reactivity to Pre-proinsulin and Insulin-DRiP by CD8 T Cells in the Islets of Type1 Diabetes Organ Donors	Diplomat Ballroom 1, 2, 3		
4:00 PM	3:15 PM – 3:30 PM	Eddie James, PhD Benaroya Research Institue HLA multimer-based characterization of islet specific CD4+ T cells that target beta cell epitopes and neo-epitopes	(Convention Center, 2 nd Floor)		

	3:30 PM – 4:00 PM	Clayton Mathews PhD & Alberto Pugliese MD Co-Chair Discussion Update on the nPOD-IIP, Discussion and Future Directions	
4:00 PM – 6:00 PM	FREE TIME		
6:00 PM – 8:00 PM	Poster Session (hors d'oeuvres provided)		Diplomat Ballroom 4 &5 (Convention Center, 2 nd Floor)
8:00 PM	DINNER (on your own)		

Friday, February 22, 2019 (Half day)				
Time	Function		Location	
7:00 AM – 8:45 AM	BREAKFAST & CHECKOUT Hotel checkout is 11 AM If checking out today, please bring luggage to the registration table for the remainder of the meeting.		Diplomat Ballroom 4 &5 (Convention Center, 2 nd Floor)	
8:45 AM – 10:15 AM	Cutting Edge Seminar V: Emerging Technologies Co-Chairs: Carmella Evans-Molina & Olivier Blondel			
	8:45 AM – 9:15 AM	Patrick MacDonald, PhD University of Alberta Linking Function and Transcriptomes of Single Human Islet Cells	Diplomat Ballroom 1, 2, 3 (Convention Center, 2 nd Floor)	
	9:15 AM – 9:45 AM	Long Cai, PhD California Institute of Technology Spatial genomics: single cell in situ transcription profiling		
	9:45 AM – 10:15 AM	Nikolay Ninov, PhD Technische Universität Dresden Pathways to pancreatic beta-cell failure and regeneration: learning using single-cell analysis in zebrafish and translating to human		
10:15 AM – 10:45 AM	Discussion Session V: Emerging Technologies Led by: Carmella Evans Molina & Olivier Blondel		Diplomat Ballroom 1, 2, 3 (Convention Center, 2 nd Floor)	
10:45 AM – 11:00 AM	BREAK			
11:00AM – 11:15 AM	Al Powers, MD Vanderbilt University Pancreas Atlas Database — Juvenile		Diplomat Ballroom 1, 2, 3 (Convention Center, 2 nd Floor)	

11:15 AM – 11:30 AM	Klaus Kaestner, PhD University of Pennsylvania HPAP Update	Diplomat Ballroom 1, 2, 3 (Convention Center, 2 nd Floor)		
11:30 AM – 11:45AM	Bobbie-Jo Webb-Robertson, PhD Pacific Northwest National Laboratory Big Data – nPOD Data Group and NIH Resources	Diplomat Ballroom 1, 2, 3 (Convention Center, 2 nd Floor)		
11:45 AM – 12:00 PM	Alberto Pugliese, MD & Carmella Evans Molina, MD, PhD nPOD Co-Executive Directors Looking Forward & Closing Remarks	Diplomat Ballroom 1, 2, 3 (Convention Center, 2 nd Floor)		
END OF MEETING				



