

Tuesday, February 19, 2019				
Time		Location		
10:00 AM – 6:45 PM		REGISTRATION	Great Hall Foyer (Convention Center, 3 <sup>rd</sup> Floor)	
12:00 PM – 12:15 PM		Opening Remarks: Mark Atkinson, PhD nPOD Executive Director		
		Cutting Edge Seminar I: Biology and Implications for Type 1 Diabetes o-Chairs: Maike Sander & Patrick MacDonald		
	12:15 PM – 12:45 PM	<b>Peter Arvan, MD, PhD</b> <b>University of Michigan</b> The Unfolding Story About Proinsulin	Great Hall 1 (Convention Center, 3 <sup>rd</sup> Floor)	
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?		
	1:15 PM – 1:45 PM	<b>Emily Sims, MD</b> <b>Indiana University</b> "Circulating proinsulin levels can provide insight into beta cell stress during the evolution of T1D"		
1:45 PM – 2:15 PM	Islet Cell	<b>Discussion Session I:</b> <b>Biology and Implications for Type 1 Diabetes</b> Led by: Maike Sander & Patrick MacDonald	Great Hall 1 (Convention Center, 3 <sup>rd</sup> Floor)	
2:15 PM – 2:45 PM		BREAK		

		r <b>al Abstracts I: Lessons from NOD Mice</b> irs: Maggie Morris and Matthias von Herrath	
2:45 PM – 4:00 PM	2:45 PM – 3:00 PM	0-13: Stefan Mihaela, PhD Mount Sinai School of Medicine Mechanisms that Control Changes in DNA Methylation and Hydroxymethylation induced by Interferon alpha in B cells: Implications for Type 1 Diabetes	
	3:00 PM – 3:15 PM	<b>0-19:</b> Jamie Felton, MD Indiana University Metabolic Phenotyping of Islet-Infiltrating Lymphocytes in Type 1 Diabetes	Great Hall 1 (Convention Center, 3 <sup>rd</sup> Floor)
	3:15 PM – 3:30 PM	<b>LB-11:</b> <b>Luc Teyton, MD, PhD</b> <b>Scripps Research</b> Role of Dietary Insults and Lymphangiogenesis in the Initiation of T1D in NOD Mice and Human	
	3:30 PM – 3:45 PM	LB-04: Todd Zion, PhD Akston Biosciences Corporation An Insulin-Specific B Cell Deletional Immunotherapy, AKS107, for Prevention of Type 1 Diabetes	
	3:45 PM – 4:00 PM	<b>LB-31</b> <b>Karsten Buschard, MD</b> <b>Bartholin Institute</b> Sphingolipids in the pathogenesis of Type 1 Diabetes	

		<b>Oral Abstracts II: Immunology</b> Co-Chairs: Eddie James & Katie Haskins	
	4:00 PM – 4:15 PM	O-17: Rocky Baker, PhD University of Colorado Characterization of T Cells Reactive to Hybrid Insulin Peptides in Type 1 Diabetes Patients	
4:00 PM – 5:00 PM	4:15 PM – 4:30 PM	LB-08: 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?	
5.00 T M	4:30 PM – 4:45 PM	O-36: 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	Great Hall 1 (Convention Center, 3 <sup>rd</sup> Floor)
	4:45 PM – 5:00 PM	O-20: 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	O-23: 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)	Great Hall Foyer (Convention Center, 3 <sup>rd</sup> Floor)
6:45 PM – 7:30 PM	George Eisenbarth Memorial Lecture: Emil Unanue, MD Washington University Beta Cell Crinosomes Maintain Homeostasis but Promote Autoimmunity	Great Hall 1 (Convention Center, 3 <sup>rd</sup> Floor)
7:30 PM	DINNER (on your own)	

Wednesday, February 20, 2019					
Time		Function			
7:00 AM – 5:00 PM		REGISTRATION	Great Hall Foyer (Convention Center, 3 <sup>rd</sup> Floor)		
7:00 AM – 8:00 AM		BREAKFAST	Great Hall Foyer (Convention Center, 3 <sup>rd</sup> Floor)		
8:00 AM – 8:45 AM		Keynote Address: Michael Snyder, PhD Stanford University "Applying Big Data to Human Health"			
		Cutting Edge Seminar II: Autoimmunity / Pathogenesis Co-Chairs: Bart Roep & Alice Long			
0.45 444	8:45 AM – 9:15 AM	<b>Roberto Mallone, MD, PhD</b> INSERM Cochin Institute Of Pancreas and Not Blood: A T-Cell Viewpoint	Great Hall 1		
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	(Convention Center, 3 <sup>rd</sup> 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		Great Hall 1 (Convention Center, 3 <sup>rd</sup> Floor)		

		nPOD Working Group Presentations: nPOD-Autoimmunity Co-Chairs: Todd Brusko & Sally Kent		
	11:00 AM – 11:15 AM	O-28: 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	O-29: Leeana Peters, MSc. University of Florida Unsupervised Clustering of High Parameter Mass Cytometry Data Reveals Immune Heterogeneity in T1D	Great Hall 1 (Convention Center, 3 <sup>rd</sup> Floor)	
12:00 PM	11:30 AM – 12:00 PM	Sally Kent, PhD University of Massachusetts Integrating what we have learned about islet autoimmunity from blood, lymphoid tissues and pancreas & Discussion and Future Directions		
12:00 PM – 1:00 PM		LUNCH	Great Hall Foyer (Convention Center, 3 <sup>rd</sup> 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		
	1:30 PM – 2:00 PM	Kevan Herold, MD Yale University Beta cell responses to inflammatory mediators in checkpoint inhibitor induced diabetes		

2:30 PM – 3:00 PM 3:00 PM – 3:15 PM	2:00 PM – 2:30 PM	Jim Riley, PhD University of Pennsylvania Can CAR expressing T regulatory cells promote durable tolerance of islet transplants? Discussion Session III: Lessons from Other Diseases Co-Chairs: Jane Buckner & David Leslie BREAK	Great Hall 1 (Convention Center, 3 <sup>rd</sup> Floor) 
		<b>Oral Abstracts III: β Cell Biology</b> Co-Chairs: Peter Arvan & Raghu Mirmira	
	3:15 PM – 3:30 PM	O-03: 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	O-12: Edward Phelps, PhD University of Florida Mechanism and Effects of Pulsatile GABA Secretion from Cytosolic Pools in the Human Beta Cell	Great Hall 1 (Convention Center, 3 <sup>rd</sup> Floor)
	3:45 PM – 4:00 PM	O-14: 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	O-31: Farooq Sayed, PhD	

		Indiana University Comprehensive Analysis of Micro-RNA Expression Profiles in Human Islets and Islet Derived Exosomes During Cytokine Mediated β Cell Stress and Death	
	4:15 PM – 4:30 PM	LB-07: 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		Location		
7:00 AM – 8:00 AM		BREAKFAST	Great Hall Foyer (Convention Center, 3 <sup>rd</sup> Floor)	
		Cutting Edge Seminar IV: Beta Cells / Stem Cells Co-Chairs: David Harlan & Al Powers		
	8:00 AM – 8:30 AM	<b>Les Satin, PhD</b> <b>University of Michigan</b> The Underlying Basis of Pulsatile Insulin Secretion: Mechanisms, Models, and Modes	Great Hall 1 (Convention Center, 3 <sup>rd</sup> Floor)	
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		
	9:00 AM – 9:30 AM	<b>Matthias Hebrok, PhD</b> <b>University of California, San Francisco</b> 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	O-49: 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	Great Hall 1 (Convention Center, 3 <sup>rd</sup> Floor)	

	10:30 AM – 10:45 AM 10:45 AM – 11:00 AM	O-07: Ivan Gerling, PhD University of Tennessee Activation of Toll Like Receptor Pathways in Insulitic Islets of Type 1 Diabetes O-50: 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	LB-19: Alexia Carré, MSc INSERM Cochin Institute Coxsackievirus-infected human beta cells display selected viral sequences on their HLA Class I molecules
	Co-	Oral Abstracts IV: Pathogenesis Chairs: John Kappler & Malin Flodstrom-Tullberg
11:30 AM – 12:30 PM	11:30 AM – 11:45 AM	O-47: 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
	11:45 AM – 12:00 PM	LB-28: 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

	12:00 PM – 12:15 PM 12:15 PM – 12:30 PM	O-42: Wei-Jun Qian, PhD Pacific Northwest National Laboratory Nanoscale Deep Proteome Profiling of Pancreatic Islets from Presymptomatic Autoantibody Positive and T1D Subjects O-30: Adam Swensen, PhD Pacific Northwest National Laboratory Evidence of Incomplete Prohormone Processing	
12:30 PM – 1:30 PM		in Type 1 Diabetes from Mass Spectrometry Based Proteomics LUNCH	Great Hall Foyer (Convention
		nPOD Working Group Presentations: nPOD-Slice o-Chairs: Stephan Speier & Alejandro Caicedo	Center, 3 <sup>rd</sup> Floor)
	1:30 PM – 1:35 PM	Introduction Stephan Speier, PhD DZD-Paul Langerhans Institute Dresden of the Helmholtz Zentrum Munic	
1:30 PM – 2:45 PM	1:35 PM – 1:50 PM	O-37: 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 *(includes data from abstract 038)*	Great Hall 1 (Convention Center, 3 <sup>rd</sup> Floor)
	1:50PM – 2:05 PM	O-33: Joana Almaca/Sirlene Cechin, PhD University of Miami Assessment of Viability, Endocrine Function and Calcium Signaling in Pancreas Slices Generated at a Remote Site and First Side-By-	

	2:05 PM – 2:20 PM	Side Evaluation of Insulin and Glucagon Secretion in Pancreas Slices and Isolated Islets from the Same Donor O-48: 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	
	2:20 PM – 2:35 PM	Diabetes O-34 Juan Dominguez-Bendala, PhD 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 o-Chairs: Clayton Mathews & Alberto Pugliese	
3:00 PM – 4:00 PM	3:00 PM – 3:15 PM	LB-06 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	Great Hall 1 (Convention
	3:15 PM – 3:30 PM	O-22: Eddie James, PhD Benaroya Research Institue HLA multimer-based characterization of islet specific CD4+ T cells that target beta cell	Center, 3 <sup>rd</sup> Floor)

		epitopes and neo-epitopes	
	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)		Great Hall 2 (Convention Center, 3 <sup>rd</sup> Floor)
8:00 PM	DINNER (on your own)		

Friday, February 22, 2019 (Half day)						
Time		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.		Great Hall Foyer (Convention Center, 3 <sup>rd</sup> 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	<b>Patrick MacDonald, PhD</b> <b>University of Alberta</b> Linking Function and Transcriptomes of Single Human Islet Cells	Great Hall 1 (Convention Center, 3 <sup>rd</sup> 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	<b>Nikolay Ninov, PhD</b> <b>Technische Universität Dresden</b> 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		Great Hall 1 (Convention Center, 3 <sup>rd</sup> Floor)			
10:45 AM – 11:00 AM	BREAK					
11:00AM – 11:15 AM	Pancreas Atlas Database – Juvenile Al Powers, MD Vanderbilt University		Great Hall 1 (Convention Center, 3 <sup>rd</sup> Floor)			

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

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