

Network for
Pancreatic
Organ donors with
Diabetes

13TH
ANNUAL SCIENTIFIC
MEETING



A VIRTUAL MEETING EXPERIENCE

A LIVE WEBINAR ON T1D RESEARCH & DISCOVERY

FEBRUARY 22 - 24, 2021

Sponsored by:



WELCOME TO THE 13TH ANNUAL nPOD SCIENTIFIC MEETING

THIS IS A VIRTUAL MEETING EVENT ACROSS
THE ZOOM WEBINAR AND MEETING PLATFORM
(ALL TIMES ARE EASTERN STANDARD)

SCIENTIFIC SESSIONS WEBINAR

Main event session will be on the Zoom Webinar
use this for all three days of the scientific session webinar

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SPECIAL PRESENTATION FOR YOUNG INVESTIGATORS

Occurs on the Day 3 (2/24/2021) - 9:15 AM - 10:15 AM

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POSTER PRESENTATION SESSION

Occurs on the Day 1 & 2 (3:00 PM - 4:00 PM)

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Monday, February 22, 2021

EVENT OPENING REMARKS & WELCOME

10:15 AM - 10:30 AM

Mark Atkinson, Alberto Pugliese & Carmella Evans-Molina

SESSION 1

10:30 AM - 12:00 PM

Pancreas Pathology Across the Natural History of Type 1 Diabetes

Chairs: Noel Morgan, Martha Campbell-Thompson

10:30 AM – 11:00 AM	Teresa Rodriguez-Calvo Helmholtz Zentrum Munich <i>ABSTRACT: “Quantitative analysis of pancreatic T cell infiltration in type 1 diabetes: a numbers game”</i>	Click Here Join Zoom Webinar
11:00 AM – 11:15 AM	Charanya Muralidharan Indiana University School of Medicine <i>ABSTRACT: “Evidence of increased telolysosomes presence in alpha and beta cells of autoantibody positive human organ donors”</i>	
11:15 AM – 11:30 AM	Matthias von Herrath La Jolla Institute for Immunology <i>THEME TALK: “Pancreas pathology across the natural history of T1D”</i>	
11:30 AM – 12:00 PM	Session 1 Panel Discussion Chairs, Speakers, & Kevan Herold	

12:00 PM - 12:30 PM

- 30 MINUTE BREAK -

Monday, February 22, 2021

SESSION 2

12:30 PM - 2:00 PM

Oral Abstract Presentations

Chairs: Bill Hagopian, Rachel Friedman

12:30 PM – 12:45 PM	Chester Chamberlain University of California, San Francisco <i>ABSTRACT: “Whole exome sequencing and analysis of 207 nPOD cases”</i>	Click Here Join Zoom Webinar
12:45 PM – 1:00 PM	Estefania Quesada-Masachs La Jolla Institute for Immunology <i>ABSTRACT: “HLA class II can be expressed in the islets of type 1 diabetic patients”</i>	
1:00 PM – 1:15 PM	Federica Vecchio Université de Paris, Institut Cochin, CNRS, INSERM <i>ABSTRACT: “Characterization of the anti-viral immune response against Coxsackievirus in type 1 diabetes”</i>	
1:15 PM – 1:30 PM	Alice Carr University of Exeter <i>ABSTRACT: “Circulating insulin C-peptide levels mirror pancreatic beta-cell loss across all ranges of age and disease duration of type 1 diabetes”</i>	
1:30 PM – 1:45 PM	Yi-Chun Chen University of British Columbia <i>ABSTRACT: “Establishment of pro-islet amyloid polypeptide as a biomarker in T1D”</i>	
1:45 PM – 2:00 PM	Richard of Oram University of Exeter <i>ABSTRACT: “Reappearance of C-peptide during the third trimester in type 1 diabetes pregnancy: pancreatic regeneration or fetal hyperinsulinism?”</i>	

2:00 PM - 3:00 PM

- 1 HOUR BREAK -

END OF DAY 1 WEBINAR SESSIONS

RESUME FOR POSTER SESSIONS IN ZOOM MEETING ROOM

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DAY 1 POSTER SESSIONS

You will have to disconnect from scientific sessions webinar to join to the poster session

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POSTER PRESENTATION SESSION

3:00 PM - 4:00 PM

****SEE THE LIST OF POSTERS AT THE END OF THE PROGRAM AGENDA****

POSTER PRESENTATIONS OCCUR IN ZOOM BREAKOUT ROOMS

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Tuesday, February 23, 2021

SESSION 3

10:30 AM - 12:00 PM

Beta Cells Alterations in Type 1 Diabetes

Chairs: Rebecca Hull, Susan Bonner Weir

10:30 AM – 11:00 AM	Bruce Verchere University of British Columbia <i>THEME TALK: “Pathological Changes Affecting Beta Cells in Type 1 Diabetes”</i>	Click Here Join Zoom Webinar
11:00 AM – 11:15 AM	Ji-Ming Feng Louisiana State University <i>ABSTRACT: “Cellular distribution of Golgi protein in human pancreatic islets”</i>	
11:15 AM – 11:30 AM	Edgard Cruz University of Tennessee Health Science Center <i>ABSTRACT: “Alterations in the Molecular Pathways Involved in the Expression of Hyaluronan in Human Pancreatic Islets”</i>	
11:30 AM – 12:00 PM	Session 3 Panel Discussion Chairs, Speakers, Decio Eizirik, Emily Sims & Mark Huisin	

12:00 PM - 12:30 PM

- 30 MINUTE BREAK -

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Tuesday, February 23, 2021

SESSION 4

12:30 PM - 2:30 PM

COVID-19, Pancreas and Diabetes

Chairs: Alberto Pugliese, Daniel Drucker

12:30 PM – 12:55 PM	Robert Eckel University of Denver, Colorado <i>TALK: “Association of T1D with COVID-19 – what is the evidence?”</i>	Click Here Join Zoom Webinar
12:55 PM – 1:20 PM	Daniel Drucker Lunenfeld Tanenbaum Research Institute, Mt. Sinai Hospital, Toronto <i>TALK: “The pancreas as a target for SARS-CoV-2 infection”</i>	
1:20 PM – 1:40 PM	Shuibing Chen Weill Cornell Medicine, Cornell University <i>TALK: “Sars-Cov2 infection in pancreas from COVID patients and isolated islets”</i>	
1:40 PM – 2:00 PM	Dirk Homann Icahn School of Medicine at Mount Sinai <i>TALK: “Sars-Cov2 infection in human pancreatic cells”</i>	
2:00 PM – 2:30 PM	Session 4 Panel Discussion Chairs, Speakers, Alexander Kleger, Katie Coate, Decio Eizirik & Francesco Dotta	

2:30 PM - 3:00 PM

- 30 MINUTE BREAK -

END OF DAY 2 WEBINAR SESSIONS

RESUME FOR POSTER SESSIONS IN ZOOM MEETING ROOM

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LAST DAY OF POSTER SESSIONS

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POSTER PRESENTATION SESSION

3:00 PM - 4:00 PM

****SEE THE LIST OF POSTERS AT THE END OF THE PROGRAM AGENDA****

POSTER PRESENTATIONS OCCUR IN ZOOM BREAKOUT ROOMS

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Wednesday, February 24, 2021

SPECIAL PRESENTATION FOR JUNIOR INVESTIGATORS

[Click Here to Join Special Presentation Zoom Meeting](#)

9:15 AM - 10:15 AM

Maggie A. Morris Fears, Ph.D.

Scientific Review Officer, Immunology Review Branch, SRP DEA NIAID NIH DHHS

“NIH Peer Review: Guidance, questions and answers”

DAY 3 WEBINAR SESSIONS

[Click Here to Join Scientific Sessions Webinar](#)

SESSION 5

10:30 AM - 12:00 PM

nPOD & Industry: Working Together Towards Translation

Chairs: Ben Williams & Simi Ahmed

10:30 AM – 11:00 AM	Sanjoy Dutta JDRF <i>“JDRF, nPOD & Industry”</i>	Click Here Join Zoom Webinar
11:00 AM – 11:15 AM	Daniel Rivera Repertoire <i>“Decoding The T-cell Immune Repertoire in Type 1 Diabetes”</i>	
11:15 AM – 11:30 AM	Francisco Leon Provention Bio <i>“Provention – Enterovirus vaccine”</i>	
11:30 AM – 12:00 PM	Session 5 Panel Discussion Chairs, Speakers, Daniel Rios (Pandion Therapeutics), Matthias von Herrath (Novo Nordisk and LJI), Peter Weber (Immunocore)	

12:00 PM – 12:30 PM

- 30 MINUTE BREAK -

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Wednesday, February 24, 2021

SESSION 6

12:30 AM - 2:00 PM

T1D Immunology – TCR Studies

Chairs: Sally Kent, Megan Levings

12:30 PM – 1:00 PM	Todd Brusko University of Florida <i>THEME TALK: “TCR studies in nPOD donors”</i>	Click Here Join Zoom Webinar
1:00 PM – 1:15 PM	Maki Nakayama Barbara Davis Center, University of Colorado Denver <i>ABSTRACT: “Preproinsulin-reactive CD4 T cells in the islets of type 1 diabetes organ donors”</i>	
1:15 PM – 1:30 PM	Sally Kent University of Massachusetts Medical School <i>ABSTRACT: “Senescent phenotype of islet-infiltrating CD8+ T cells from donors with type 1 diabetes”</i>	
1:30 PM – 2:00 PM	Session 6 Panel Discussion Chairs, Speakers, Roberto Mallone & David Klatzmann	

SESSION 7

2:00 PM - 3:00 PM

LATE BREAKING ABSTRACTS

Chairs: Malin Flodstrom-Tullberg, Lori Sussel

2:00 PM – 2:15 PM	Mollie Huber University of Florida <i>“Investigating type 1 diabetes pathogenesis with the live pancreas tissue slice platform”</i>	Click Here Join Zoom Webinar
2:15 PM – 2:30 PM	Farhan Qureshi University of Miami <i>“Postnatal Development of Islet Macrophages”</i>	

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Wednesday, February 24, 2021

SESSION 7

2:00 PM - 3:00 PM

LATE BREAKING ABSTRACTS

Chairs: Malin Flodstrom-Tullberg, Lori Sussel

2:30 PM – 2:45 PM	<p>Estefania Quesada-Masachs La Jolla Institute for Immunology</p> <p><i>“IL-17 is expressed in insulin-containing islets of donors with type 1 and type 2 diabetes”</i></p>	<p>Click Here Join Zoom Webinar</p>
2:45 PM – 3:00 PM	<p>Golnaz Vahedi University of Pennsylvania</p> <p><i>“Multiomics single-cell analysis of human pancreatic islets reveals novel cellular states in health and type 1 diabetes”</i></p>	

3:00 PM – 3:10 PM

- 10 MINUTE BREAK -

CLOSING REMARKS & FAREWELL

3:10 PM - 3:20 PM

Alberto Pugliese & Carmella Evans-Molina

nPOD TALENT SHOW

- STARTS at 3:20 PM -

Have a glass of wine, relax, and enjoy a selection of past and new performances by nPOD investigators

[See next page for the list of poster session abstracts](#)

LIST OF POSTER SESSION ABSTRACTS

You will have to disconnect from scientific sessions webinar to join to the poster session

[JOIN POSTER SESSIONS ZOOM MEETING](#)

POSTER PRESENTATIONS OCCUR IN ZOOM BREAKOUT ROOMS

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POSTER PRESENTATION SESSIONS 2/22/2021 & 2/23/2021 3:00 PM - 4:00 PM		
#1	Julia Panzer University of Miami <i>Endocrine cell function during early postnatal development of the human pancreas</i>	Zoom Virtual Meeting (Link)
#2	Milan Patra The Hebrew University of Jerusalem <i>Multi-omics study uncovers the influence of Senescence on Beta Cell Functionality</i>	Zoom Virtual Meeting (Link)
#3	Miri Stolovich-Rain HUJI <i>Evidence for extensive elimination of cells during postnatal pancreas growth</i>	Zoom Virtual Meeting (Link)

POSTER PRESENTATION SESSIONS

2/22/2021 & 2/23/2021

3:00 PM - 4:00 PM

#5	Dan Tremmel University of Wisconsin <i>Proteome-wide and matrisome-specific alterations during human pancreas development and maturation</i>	Zoom Virtual Meeting (Link)
#6	Farooq Syed Indiana University–Purdue University Indianapolis <i>RNA and Proteins in Exosomes from Human β Cells May Reflect Early β Cell Stress in Type 1 Diabetes</i>	Zoom Virtual Meeting (Link)
#7	Nicole Hallahan University of Sydney <i>Pancreatic slices give new insights into stimulus secretion coupling</i>	Zoom Virtual Meeting (Link)
#8	Gladys Teitelman SUNY-Downstate Medical Center <i>A distinct beta cell type of human islets contains proinsulin but does not express proprotein convertase 1/3, the hormone involved in the conversion of the proinsulin to insulin</i>	Zoom Virtual Meeting (Link)
#10	Jeeyeon Cha Vanderbilt University <i>MAFA S64F Missense Mutation Causes Sex-Dependent Islet Beta Cell Aging and Senescence</i>	Zoom Virtual Meeting (Link)
#11	Xing Tong Vanderbilt University <i>Lipid droplets protect human islet β cell from lipotoxic-induced stress and senescence</i>	Zoom Virtual Meeting (Link)
#12	Francesco Vendrame University of Miami <i>Dimethyl fumarate antagonizes islet autoimmunity in NOD mice</i>	Zoom Virtual Meeting (Link)
#13	Eddie James Benaroya Research Institute <i>Revisiting the role of gamma delta T cells in type 1 diabetes</i>	Zoom Virtual Meeting (Link)
#14	Daniel Rios Pandion Therapeutics <i>A Novel PD-1:MAAdCAM Bifunctional Antibody for the Treatment of T1D</i>	Zoom Virtual Meeting (Link)

POSTER PRESENTATION SESSIONS

2/22/2021 & 2/23/2021

3:00 PM - 4:00 PM

#17	Christina Martins University of Pittsburgh <i>Glycolysis Inhibition delays the onset of Type 1 Diabetes by inducing CD4+ T cell Exhaustion</i>	Zoom Virtual Meeting (Link)
#18	Pouria Akhbari University of Exeter <i>Changes in HLA class I expression in pancreatic beta cell line EndoC-βH1 exposed to poly I:C and interferons</i>	Zoom Virtual Meeting (Link)
#20	Wenting Wu Center for Diabetes and Metabolic Diseases, Indiana University School of Medicine <i>Use of a Computational Biology Workflow to Identify Altered Pre-mRNA Splicing Events in Subjects with New-Onset T1D</i>	Zoom Virtual Meeting (Link)
#22	Laurin Herbsthofer Center for Biomarker Research in Medicine GmbH <i>Cell2grid Compression of Fluorescent Multiplexed Immunohistochemistry Images Enables Structural Analysis of Pancreatic Islets and Novel Biomarker Discovery</i>	Zoom Virtual Meeting (Link)
#23	Timothy Wiles University of Colorado Skaggs School of Pharmacy and Pharmaceutical Sciences <i>Confident identification of hybrid insulin peptides as autoantigens in T1D</i>	Zoom Virtual Meeting (Link)
#25	Barbara Ehall Division of Endocrinology and Diabetology Medical University of Graz <i>Islet composition beyond insulinitis: Re-evaluating grading of beta cell destruction via fluorescent multiplexed immunohistochemistry (fm-IHC)</i>	Zoom Virtual Meeting (Link)
#27	Marika Bogdani Benaroya Research Institute <i>The Vbeta13 T cell receptor monoclonal antibody reduces hyaluronan and CD68+, CD3+ and CD8+ cell infiltrations to delay diabetes in congenic BB DRLyp/Lyp rats</i>	Zoom Virtual Meeting (Link)

POSTER PRESENTATION SESSIONS

2/22/2021 & 2/23/2021

3:00 PM - 4:00 PM

#30	Zachary Morse University of British Columbia <i>Virus-mediated dysbiosis alters immune populations to promote type 1 diabetes onset</i>	Zoom Virtual Meeting (Link)
#31	Jody Ye Albert Einstein College of Medicine <i>Genetic and environmental factors regulate the type 1 diabetes gene CTSB by differential DNA methylation</i>	Zoom Virtual Meeting (Link)
#33	Hervé Perron Geneuro-Innovation <i>Analysis of long-read whole genome sequence data from T1D pancreatic tissues for pathogenic HERV-W-env sequences</i>	Zoom Virtual Meeting (Link)
#34	Nick Thomas University of Exeter <i>DR15-DQ6 remains dominantly protective against type 1 diabetes throughout the first five decades of life</i>	Zoom Virtual Meeting (Link)
#35	Christine Bender La Jolla Institute for Immunology (LJI) <i>The dominant presence of Preproinsulin-specific CD8 T cells in the human pancreas</i>	Zoom Virtual Meeting (Link)
#36	Pascal de Boer University Medical Center Groningen <i>Large-scale electron microscopy database for human type 1 diabetes</i>	Zoom Virtual Meeting (Link)
#37	Golnaz Vahedi UPENN <i>Multomics single-cell analysis of human pancreatic islets reveals novel cellular states in health and type 1 diabetes</i>	Zoom Virtual Meeting (Link)
#38	Teresa Quattrin Jacobs School of Medicine and Biomedical Sciences, University at Buffalo and JR Oishei Children's Hospital Diabetes Center <i>Off-Therapy Effects of Golimumab in Type 1 Diabetes: Week 104 Follow-up Results of the T1GER Study</i>	Zoom Virtual Meeting (Link)

POSTER PRESENTATION SESSIONS

2/22/2021 & 2/23/2021

3:00 PM - 4:00 PM

#39	Virginia Stone Karolinska Institutet <i>A multivalent Coxsackievirus vaccine does not accelerate the onset of diabetes in NOD mice.</i>	Zoom Virtual Meeting (Link)
#40	Zeina Drawshy Hebrew university of Jerusalem <i>Development of a new strategy for the accurate assessment of beta-cell mass and function in health and disease</i>	Zoom Virtual Meeting (Link)
#41	Noemi Brusco University of Siena <i>Altered in-situ expression of proinsulin-insulin in pancreatic islets reflects metabolic and molecular defects in Type 2 Diabetic and Glucose Intolerant living donors</i>	Zoom Virtual Meeting (Link)
#42	Estefania Quesada-Masachs La Jolla Institute for Immunology <i>IL-17 is expressed in insulin-containing islets of donors with type 1 and type 2 diabetes</i>	Zoom Virtual Meeting (Link)
#43	Julius Nyalwidhe Eastern Virginia Medical School <i>Identification of Enteroviruses in nPOD cases by Mass Spectrometry</i>	Zoom Virtual Meeting (Link)
#44	Sian Grace University of Exeter <i>Glutamate Decarboxylase and Islet Antigen-2 autoantibody titres at diagnosis in people with Type 1 Diabetes showed bimodality and an age of diagnosis association</i>	Zoom Virtual Meeting (Link)
#45	David Harlan UMass Medical School <i>Development of an islet "micropunch" to isolate and characterize single islets from donors with and without T1D through the nPOD pancreatic slice program</i>	Zoom Virtual Meeting (Link)
#46	Isabel Diaz Lozano Karolinska Institute <i>Isolation and proteome profiling of plasma-derived extracellular vesicles from the non-obese diabetic (NOD) mouse.</i>	Zoom Virtual Meeting (Link)

POSTER PRESENTATION SESSIONS

2/22/2021 & 2/23/2021

3:00 PM - 4:00 PM

#47	Dongkyu Lee University of Illinois <i>Hormone detection in formaldehyde-fixed paraffin-embedded pancreata using chemical analyte decrosslinking-based mass spectrometry imaging</i>	Zoom Virtual Meeting (Link)
#49	Farhan Qureshi University of Miami <i>Postnatal Development of Islet Macrophages</i>	Zoom Virtual Meeting (Link)
#50	Leeana Peters University of Florida <i>Single cell transcriptomic and epigenetic analysis of pancreatic lymph node tissues in T1D</i>	Zoom Virtual Meeting (Link)
#51	Verena van der Heide Icahn School of Medicine at Mount Sinai <i>Experimental SARS-CoV-2 infection of the human pancreas</i>	Zoom Virtual Meeting (Link)
#52	Mollie Huber University of Florida <i>Investigating type 1 diabetes pathogenesis with the live pancreas tissue slice platform</i>	Zoom Virtual Meeting (Link)
#53	Abdel Hamad Des Moines University Department of Pathology <i>x-mAb produced by dual expresser lymphocytes identifies a universal autoreactive T cell receptor</i>	Zoom Virtual Meeting (Link)
#54	Monica Wesley Founder, the(sugar)science - Visiting Professor, Harvard University <i>The (sugar) Science</i>	Zoom Virtual Meeting (Link)