

Poster session A

A01

Expansion of islet reactive memory CD4 T cells in different stages of T1D and after therapy

Karen Cerosaletti, Benaroya Research Institute, USA

A02

T cells reactive to Hybrid Insulin Peptides in the Peripheral Blood of T1D Patients are Proinflammatory

Rocky Baker, University of Colorado Denver, USA

A03

Citrullinated and native GRP78 peptides are targeted by circulating naïve CD8+ T cells in type 1 diabetic and healthy donors

Marie Eliane Azoury, INSERM U1016 - Cochin Institute, France

A04

Lymph Node Stromal Cell Regulation of Insulin-specific CD8+ T cells

Susan Wong, Cardiff University, UK

A05

CD4+ T cell activation, function, and metabolism are inhibited by very low concentrations of DMSO

Lisa Holthaus, Helmholtz Zentrum München, Germany

A06

The effects of maternal type 1 diabetes on autoreactive CD4+ T cells in neonates

Jan Knoop, Helmholtz Zentrum München, Germany

A07

Identification of autoreactive CD8+T cell epitopes from tetraspanin-7 in humanized mice and type 1 diabetes patients

Tao Yang, The First Affiliated Hospital of Nanjing Medical University, China

A08

Genetic modification of insulin and chromogranin A to protect NOD mice from Type-1 diabetes

Niyun Jin, University of Colorado Denver, USA

A09

Heterogeneity of circulating CD8 T-cells specific to islet, neo-antigen and virus in patients with type 1 diabetes mellitus

Jessica Suwandi, LUMC, Netherlands

A10

Human CD4 T cells recognize the c-terminally modified insulin B:9-23 peptide in the same fashion as mouse diabetogenic T cells

Shaodong Dai, University of Colorado Denver, USA

A11

Single cell analysis of anti-insulin CD4 T cells in pre-diabetic NOD mice and humans reveals molecular mechanisms of disease

Siddhartha Sharma, The Scripps Research Institute, USA

A12

Single cell RNA seq profiling of (auto-)antigen-specific CD8+ T cells in response to their target antigen

Yannick Fuchs, TU Dresden, Germany

A13

Analysis of T cell receptor repertoire and antigen reactivity of islet infiltrating regulatory T cells in type 1 diabetes

Maria Bettini, Baylor College of Medicine, USA

A14

Analysis of human islet immunopeptidome reveals presentation of a modified PPI15-24 epitope that is targeted by a clonally distinct subset of CD8+ T cells

Kailin Giam, King's College London, UK

A15

Diabetes protection induced by liposome mediated antigen-specific immunotherapy is dependent on islet-specific T cell reprogramming

Anne-Sophie Bergot, University of Queensland, Australia

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Binding of hybrid insulin peptides to HLA class II molecules associated with T1D risk

James Harbige, King's College London, UK

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Enhancing in vivo antigen-specific Treg cells in murine model as combination therapy of anti-DEC205-OVA and FC-IL-2 Mutein

Thi Minh Nguyet Pham, Benaroya Research Institute, USA

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Advanced antibody based therapies targeting pathogenic peptide-MHCII complexes in treating type 1 diabetes

Li Zhang, Baylor College of Medicine, USA

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Deciphering T and B lymphocyte cross-talk in type 1 diabetes

Leire Egia-Mendikute, University of Lleida, Spain

A20

Analysis of T cell receptor and specificity of T cells in the islets of type 1 diabetes organ donors

Maki Nakayama, University of Colorado Denver, USA

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Persistent long term endogenous insulin secretion in type 1 diabetes is associated with an enhanced signature of islet specific immune regulation

Timothy Tree, King's College London, UK

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C-peptide of proinsulin is an autoantigen in human type 1 diabetes

Michelle So, St Vincent's Institute of Medical Research, Australia

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Single cell gene expression signatures of in vitro stimulated antigen-responsive regulatory and conventional CD4+ T cells

Julia Reinhardt, TU Dresden, Germany

A24

Tolerogenic multi-epitope DNA vaccination in autoimmune diabetes

Remi Creusot, Columbia University, USA

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Nanoparticle- and dendritic cell-mediated in vivo delivery of multiple epitopes-encoding mRNA for antigen-specific immunotherapy of T1D

Remi Creusot, Columbia University, USA

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Phenotypic and transcriptional analysis of stromal cells in pancreatic lymph nodes in type 1 diabetes

Remi Creusot, Columbia University, USA

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Combined deep and single cell sequencing of autoantigen-specific CD4+ T cell receptor beta clonotypes shows unexpected publicity and disease-related differentiation

Iria Gomez-Tourino, King's College London, UK

A28

Targeting GLUT1 to control autoreactive T cells post islet transplantation

Paolo Monti, Fondazione Centro San Raffaele, Italy

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CD4+ islet-infiltrating T cells from a recent onset donor with type 1 diabetes (T1D) recognize DQ8-restricted deamidated islet-associated epitopes

Sally Kent, University of Massachusetts Medical School, USA

A30

B cells from NOD mice can suppress antigen-specific CD8 T cells via an IL-10- mediated contact dependent DC mechanism

Joanne Boldison, Cardiff University, UK

A31

Sustained delivery of IL-2 using an injectable hydrogel prevents autoimmune diabetes

Nadine Nagy, Stanford University, USA

A32

Identification of CD8+CD25+FOXP3+ regulatory T cells in type 1 diabetes: assembling the puzzle in the disease etiopathogenesis

Alessandra Fierabracci, Ospedale Pediatrico Bambino Gesù, Italy

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Combinational regimens for antigen-specific Treg-based immunotherapy for autoimmune diabetes and transplantation tolerance

Allison Bayer, University of Miami, USA

A34

Genomic disruption of interferon receptors in NOD mice results in autoimmune diabetes with loss of adaptive tolerance

Balasubramanian Krishnamurthy, Western Health and St. Vincent's Institute, Australia

Poster session A

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The induction of exhaustion in IGRP-specific memory T cells is hampered by ongoing inflammation in the islets
Claudia Selck, St Vincent's Institute, Australia

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Induction of active tolerance after islet transplantation in longstanding diabetic NOD mice by *L. lactis*-based vaccine combined with low-dose anti-CD3
Dana Cook, KU Leuven, Belgium

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FOXP3+ regulatory T Cell compartment is altered in children with newly diagnosed type 1 diabetes but not in autoantibody-positive at-risk children
Emmi-Leena Ihantola, University of Eastern Finland, Finland

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Vaccination with citrullinated GRP78 peptide induces regulatory T-cell-driven tolerance in NOD mice
Fernanda Marques Camara Sodre, KU Leuven, Belgium

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Targeting miRNA-mediated immune activation in humanized mice
Isabelle Serr, Helmholtz Zentrum München, Germany

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Identification of infants with increased type 1 diabetes (T1D) risk for enrollment into Primary Oral Insulin Trial POInT
Jose Zapardiel-Gonzalo, Helmholtz Zentrum München, Germany

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Dissecting T-cell-specific miRNA/mRNA target relationships relevant for human islet autoimmunity
Martin G Scherm, Helmholtz Zentrum München, Germany

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Activated human mesenchymal stromal cells process and present islet peptides inducing adaptive immune regulation of islet autoimmunity
Kayleigh Van Megen, City of Hope, USA

A43

Thymic development of β cell specific regulatory T cells in neonatal NOD mice
Matthew Bettini, Baylor College of Medicine, USA

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Induction of regulatory T cells in the gut associated lymphoid tissues (GALT) to restore tolerance towards pancreas associated antigens
Neenu Jacob, Chandigarh Institute of Medical Education and Research, India

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Oral vaccination with Fc-coupled preproinsulin prevents T1D
Noemie Corcos, INSERM U1016 - Cochin Institute, France

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ATG plus recombinant probiotic expressing proinsulin prevents type 1 diabetes (T1D) in NOD mice
Olivia Bailey, University of Florida, USA

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Using gold nanoparticles for the enhanced delivery of auto-antigenic peptide in the NOD mouse model of autoimmune diabetes
Ravinder Singh, Cardiff University, UK

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STING deficiency promotes the development of autoimmune diabetes in NOD mice
Satoru Akazawa, St Vincent's Institute of Medical Research, Australia

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Lessons from apoptotic mimicry: Induction of tolerance in dendritic cells from adult and paediatric patients with type 1 diabetes by liposomes
Silvia Rodriguez-Fernandez, The Institute for Health Science Research Germans Trias i Pujol (IGTP), Spain

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Hmgb1 acts as an innate alarmin implicated in the pathogenesis of type 1 diabetes
Cong-Yi Wang, Tongji Hospital Affiliated to Huazhong University of Science and Technology, China

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The duality of MDA5 in Coxsackievirus-accelerated autoimmune diabetes and protection
Samuel Blum, The University of Alabama at Birmingham, USA

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The role of TLR-9 in macrophages in the development of T1DM
James Pearson, Yale University, USA

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Dioxygenase TET2 mediated IL-6 repression contributes to β cell survival in NOD mice
Jinxu Rui, Yale University, USA

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Reduced hepcidin expression contributes to iron overload in the pancreas and beta cell stress during the progression of disease in non-obese diabetic mice
Linda Yip, Stanford University, USA

A55

Altered gene signature for ER stress, metabolism and apoptosis precedes immune activation in pancreas and suggests a hepatic clue to diabetogenesis
Daniel Serrano, Ottawa Hospital Research Institute, Canada

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MicroRNA miR-183-5p regulates β -cell protection from apoptosis and is associated to a dedifferentiation signature in NOD mouse and T1D patients pancreatic islets
Francesca Mancarella, University of Siena, Italy

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The role of CD8:B-lymphocyte interactions in type 1 diabetes pathogenesis
Emily Hanton, King's College London, UK

A58

Discovery of gene modifications that protect beta cells against autoimmunity by genome-wide CRISPR screening
Yuki Ishikawa, Harvard Medical School, USA

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Antigens bearing synthetic glycosylations induce lasting antigen-specific tolerance and prevent autoimmunity
Jeffrey A Hubbell, University of Chicago, USA