Joint Meeting of the
EASD Islet Study Group & Beta Cell Workshop
Westin Bellevue, Dresden, May 7-10th, 2017

SUNDAY, MAY 7th 2017

From 16:00h  REGISTRATION AND DISTRIBUTION OF MEETING MATERIAL

18:30h  OPENING
Michele Solimena (for the BCW) (Dresden, DE)
Pierre Maechler (for the EASD) (Geneva, CH)

18:45h  KEYNOTE LECTURE
Chair: Pierre Maechler (Geneva, CH)

Phase transition-driven protein assembly: a new view on intra-cellular compartmentalization

Anthony Hyman (Dresden, DE)

19:30h  WELCOME RECEPTION
MONDAY, MAY 8th 2017

From 8:00h REGISTRATION AND POSTER MOUNTING

8:30h-10:30h SESSION 1: BETA CELL DEVELOPMENT

Chair: Leif Groop (Malmö, SE)

8:30h  
_Nkx2.2 acts downstream of Neurog3 to specify pancreatic endocrine lineages_  
_Lori Sussel (Denver, CO)_

9:00h  
_Beyond transcription factors in the lineage selection and differentiation of pancreas progenitors_  
_Anthony Gavalas (Dresden, DE)_

9:30h  
_Myelin transcription factors repress precocious stress responses for the function and survival of pancreatic beta cells_  
_Guoqiang Gu (Nashville, TN)_

10:00h  
_Phosphoinositide 3Kinase (PI3K) regulates endocrine cell motility and pancreatic islet morphogenesis (Short Talk)_  
_Robin Kimmel (Innsbruck, AT)_

10:15h  
_Synaptotagmin 13 regulates endocrine cell delamination during pancreas development (Short Talk)_  
_Mostafa Bakhti (Munich, DE)_

10:30h  
_COFFEE BREAK_
MONDAY, MAY 8th 2017

11:00h-13:00h  SESSION 2: BETA CELL MATURATION AND REGENERATION

Chair: Christopher Wright (Nashville, TN)

11:00h  Generating functionally mature beta cells from human stem cells

Matthias Hebrok (San Francisco, CA)

11:30h  Glucotoxic block of beta cell regeneration

Yuval Dor (Jerusalem, IS)

12:00h  mTOR signaling regulates the metabolic programing of beta cells leading to functional maturation

Anil Bhushan (San Francisco, CA)

12:30h  Heterogeneous NFkB activity balances proliferation and function in aging beta cells (Short Talk)

Sharan Janjuha (Dresden, DE)

12:45h  Transcriptome analysis of pancreatic cells across distant species highlights novel important regulator genes (Short Talk)

Bernard Peers (Liège, BE)

13:00h  LUNCH
MONDAY, MAY 8th 2017

14:00h-16:00h  SESSION 3: BETA CELL FUNCTION I

Chair: Shanta Persaud (London, UK)

14:00h  New and unexpected roles for SNARE proteins in the preservation of functional beta cell mass

Debbie Thurmond (Los Angeles, CA)

14:30h  Longitudinal in vivo imaging of islets reveals a dominant role of beta cell function in diabetes pathogenesis

Stephan Speier (Dresden, DE)

15:00h  Regulation of beta-cell function and fate by insulin

James Johnson (Vancouver, CA)

15:30h  Reversal of human beta cell functional damage induced by lipo-glucotoxic conditions or type 2 diabetes

Piero Marchetti (Pisa, IT)

16:00h  COFFEE BREAK
MONDAY, MAY 8th 2017

16:30h-18:30h  SESSION 4: BETA CELL FUNCTION II
Chair: Hindrik Mulder (Malmö, SE)

16:30h  Why are large islets unresponsive to incretins?
   Susumu Seino (Kobe, JP)

17:00h  From absence to hyperactivity of glutamate dehydrogenase and the hypo to hyperinsulinsim
   Pierre Maechler (Geneva, CH)

17:30h  Genetic and nutritional control of beta cell connectivity
   Guy Rutter (London, UK)

18:00h  Glucose dependent granule docking limits insulin secretion and is decreased in human type 2 diabetes (Short Talk)
   Nikhil Gandasi (Uppsala, SE)

18:15h  Primary cilia dysfunction disrupts glucose tolerance and beta cell function (Short Talk)
   Francesco Volta (Munich, DE)

18:30-20:30h  POSTER PRESENTATION SESSION A (ODD NUMBERS) AND REFRESHMENTS
TUESDAY, MAY 9th 2017

8:30h-13:00h CITY TOUR DRESDEN WITH EXHIBITION NEW MASTERS OR OLD MASTERS

13:00h LUNCH

14:00h KEYNOTE LECTURE
Chair: Stefan Bornstein (Dresden, DE)

*From membrane rafts to lipidomics: a life-long journey*

*Kai Simons (Dresden, DE)*

14:45h-15:45h SESSION 5: BETA CELL MASS VS. DEDIFFERENTIATION IN T2D
Chair: Gil Leibowitz (Jerusalem, IS)

14:45h *Beta cell loss in type 2 diabetes is not accounted for by dedifferentiation*

*Peter Butler (Los Angeles, CA)*

15:15h *When beta cells fail: lessons from dedifferentiation*

*Domenico Accili (New York, NY)*

15:45h COFFEE BREAK
TUESDAY, MAY 9th 2017

16:15h-18:15h  SESSION 6: GENETICS & EPIGENETICS OF BETA CELLS IN T2D

Chair: Maureen Gannon (Nashville TN)

16:15h  Using human genetics and genomics to unravel causal mechanisms for diabetes

Anna Gloyn (Oxford, UK)

16:45h  Systems biology on organ donor and surgical pancreas specimens defines a transcriptomic signature of type 2 diabetic islets

Anke Schulte (Frankfurt, DE)

17:15h  Non-coding RNAs and beta cell function

Lena Eliasson (Malmö, SE)

17:45h  Monogenic diabetes as models of beta cell organelle dysfunction in type 2 diabetes

Miriam Cnop (Brussels, BE)

18:15h-20:15h  POSTER PRESENTATION SESSION B (EVEN NUMBERS) AND REFRESHMENTS
SESSION 7: THE SOCIAL ENVIRONMENT OF THE BETA CELLS

Chair: Eduard Montanya (Barcelona, SP)

9:00h Sharing is caring: how beta cell function depends on the islet environment

Alejandro Caicedo (Miami, FL)

9:30h Molecular and functional interplay between alpha- and beta-cellular clocks in mouse and human models

Charna Dibner (Geneva, CH)

10:00h Elucidating the role of pancreatic pericytes in diabetes-associated beta cell dysfunction (Short Talk)

Limor Landsman (Tel Aviv, IS)

10:15h PYY modulates pancreatic islet secretory function and acts as a DPP-IV substrate to regulate insulin secretion (Short Talk)

Claudia Guida (Oxford, UK)

10:30h COFFEE BREAK
WEDNESDAY, MAY 10th 2017

11:00h-13:00h  SESSION 8: BETA CELL THERAPY

Chair: Ole Madsen (Copenhagen, DK)

11:00h  Reconstructing human pancreatic organogenesis
Raphael Scharffmann (Paris, FR)

11:30h  Drug design for beta cell protection in diabetes mellitus: NMDA receptor antagonists
Eckhard Lammert (Düsseldorf, DE)

12:00h  Advances in pharmacologic therapy for human beta cell regeneration
Andrew Stewart (New York, NY)

12:30h  Current status and future perspectives in diabetes therapy- from cells, pills, and chimera
Barbara Ludwig (Dresden, DE)

13:00h  LUNCH
SESSION 9: BETA CELL IMMUNE INTERACTION

14:00h - 16:00h

Chair: Ezio Bonifacio (Dresden, DE)

14:00h

*The resident phagocytes of pancreatic islets have a seminal role in islet development and inflammation*

*Emil Unanue (St. Louis, MO)*

14:30h

*Complexities of beta cell failure in type 1 diabetes*

*Clayton Mathews (Gainsville, FL)*

15:00h

*Coordinated analysis using complementary methodologies reveals a viral signature and demonstrates a low level enteroviral infection in the pancreas in type 1 diabetes*

*Teresa Rodriguez-Calvo (Munich, DE)*

15:30h

*A novel, highly proliferative population of islet endocrine cells in adolescent and adult human pancreata (Short Talk)*

*Jake Kushner (Houston, TX)*

15:45h

*Exosome-mediated transfer of microRNAs from lymphocytes to beta cells contributes to type 1 diabetes development (Short Talk)*

*Claudiane Guay (Lausanne, CH)*

16:00h

COFFEE BREAK
WEDNESDAY, MAY 10th 2017

16:30h-17:30h  SESSION 10: THE ROLE OF ALPHA CELLS IN ISLET FUNCTION
   Chair: Anders Tengholm (Uppsala, SE)

16:30h  Beta cell reconstitution by modulation of islet cell-type interconversion
   Pedro Herrera (Geneva, CH)

17:00h  Somatostatin mediates glucagonostatic effect of insulin
   Patrik Rorsman (Oxford, UK)

17:30h-18:30h  KEYNOTE LECTURE AND CLOSING REMARKS
   Chair: Michele Solimena (Dresden, DE)

17:30h  Control of pancreatic hormone secretion by brain glucose sensing networks
   Bernard Thorens (Lausanne, CH)

19:30h-24:00h  FAREWELL DINNER AT “SCHLOSS ALBRECHTSGBERG”
Thursday, MAY 11th 2017

9:00h-17:00h  DEPARTURE OR OPTIONAL TOURS TO...

...Dresden Museums
...City of Meissen
...Pillnitz Castle
...Saxonian Switzerland