

Boston Ithaca Islet Club Meeting 2014

Draft - Program as of March 25

Saturday March 29

9:30: Registration Coffee & Pastries

Session 1 Chair: Gordon Weir

10:00 Karine Robitaille*, Fu, A., McBane, JE., Baird, S., Du, Q., Screatton RA. - University of Ottawa
Application of high-throughput functional genomics to the study of human beta cell proliferation

10:20 Ling Qi*, Yewei Ji and Shengyi Sun - Cornell
A surprising role of TLR signaling in regulating beta cell proliferation

10:40 Brooke Sullivan*, Jennifer Hollister-Lock, Susan Bonner-Weir, Gordon Weir - Joslin
Past conclusions about lack of turnover in human beta cells may be erroneous because the postmortem state reduces Ki67 staining

11:00 Barak Blum*, Doug Melton – Harvard FAS
A small molecule screen to reverse beta cell de-differentiation

11:20 Adrian Kee Keong TEO*, Ivan Valdez, Ercument Dirice, Rohit Kulkarni - Joslin
Comparable generation of Activin-induced definitive endoderm via additive Wnt or BMP signaling in absence of serum

11:40 Eitan Akirav* Michael G. Spelios, Lauren A. Kenna, Bonnie Wall – Winthrop Hospital
Put your 3-D glasses on: The effects of three-dimensional cultures on insulin-producing β -cells

12:00 – 1:30: Lunch

Session 2 Chair: Rohit Kulkarni

1:30 Yong Wang*, Jose Oberholzer – University of Illinois, Chicago
Development of Microfluidic Biochips for Studying Islet Physiology and Pathophysiology –

1:50 Feyza Engin*, Alena Yermalovich, Truc Ngyuen, Wenxin Fu, Sara Hummasti, Decio Eizirik, Diane Mathis, Gokhan Hotamisligil – Harvard School of Public Health
Endoplasmic Reticulum Stress and Type 1 Diabetes

2:10 Amedeo Vetere*, Danny Hung-Chieh Chou, Amit Choudhary, Bridget Wagner – Broad, MIT
A small molecule that protects cytokines-induced beta-cell apoptosis

2:30 Mark C. Pozansky*, Tao Chen, Stephanie Duncanson, Jianping Yuan, Satoshi Kashiwagi, David Sachs, James Markmann, Thanassis Samabanis – Mass General
Use of the chemokine, CXCL12, to protect and support the longterm function of transplanted xeno and alloislet transplants

2:50 Jun-ichi Sakamaki *, Fu A., Reeks C., Baird S., Depatie C., Azzabi, M. A., Bardeesy N., Gingras A-C., Yee S-P., Screatton R. A. – University of Ottawa
Role of the SIK2–p35–PJA2 complex in pancreatic beta cell functional compensation

3:10 – 3:40: Coffee

Session 3 Chair: Vincent Poitout

3:40 Karel Erion*, Jude T. Deeney, Charles Berdan, Nathan Burritt, Barbara Corkey
Boston University Medical Center
Excess nutrients alter the insulin secretion glucose-dose response in INS-1 cells and rat islets

4:00 George A. Kyriazis*, Kathleen R Smith, Tania Hussain and Richard E Pratley
Sweet taste receptors regulate basal insulin secretion and contribute to compensatory insulin hypersecretion during diabetes - Sanford-Burnham Medical Research Institute

4:20 Kevin Vivot *, Zarrouki B., Ghislain J., Poitout V.- University of Montreal
The Regulator of G-Protein Signaling 16 (RGS16) controls insulin secretion

4:40 Arturo Mancini*, Éric Carpentier, Julien Ghislain, Kevin Vivot, Michel Bouvier, Vincent Poitout – University of Montreal
Beta-arrestin 2 recruitment and biased agonism at the free fatty acid receptor GPR40

5:00: Weida Li*, Claudia Cavelti-Weder, Gordon Weir & Qiao Zhou – Harvard FAS, Joslin
β-cells reprogrammed from pancreatic acinar cells evolve towards long-term stable state

5:20 – 5:45: Business Meeting

5:45: Reception, Joslin Atrium

6:30: Dinner

Sunday March 30

8:30: Coffee and Pastries

Session 4 Chair: Orian Sirihai

9:00 Tiego C. Alves*, Rebecca Pongratz, Orlando Yarborough, Gary Cline, Graeme Mason, Richard Kibbey - Yale
An important role for non-oxidative metabolism in insulin secretion is supported by transmitochondrial 13C-flux analysis

9:20 Marc Liesa*, Sam Sereda, Linsey Stiles, Laura Nocito, Orian Shirihai
Boston University Medical Center
A novel mitochondrial mechanism regulating glucose stimulated insulin secretion in obesity

9:40 Rebecca Pomgratz*, Tiago Alves, Yasmeen Rahimi, Xiaojian Zhao, Orlando Yarborough, Matthew Vander Heiden, Robert Harris, Richard Kibbey - Yale
Pyruvate Kinase Regulates Insulin Secretion Beyond Increasing Oxidative Metabolism

10:00 Andrew Neilson*, Sam Sereda, Kacey Caradonna, Linsey Stiles and Orian Shirihai
Seahorse Bioscience and Boston University

Development of a high throughput approach for combined measurements of islet bioenergetics and secretory functions at the resolution of the individual islet

10:20-10:50 Break

10:50 Eva Tomas*, Joel F Habener – Mass General

GLP-1(32-36)amide pentapeptide regulates oxidative metabolism by activating AMPK signaling and raising the NAD⁺/NADH ratio in C2 –

11:10 Albert Jones*, Jude Deeney, Barbara Corkey - Boston University Medical Center

Influence of Inflammation on Fatty Acid Metabolism in Type 1 Diabetes –

11: 30 Kyle Trudeau*, Aaron Colby, Mark Grinstaff, Orian Shirihai – Boston University Medical Center

Acidic, photo-activated nanoparticles restore autophagy in beta-cells exposed to high nutrient environment

11:50 Box lunches