

Nobel Conference No. 62

Combat Metabolic Diseases – New Strategies

Nobel Forum, Karolinska Institutet, Stockholm, May 28 - 29, 2015







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**Day 1 Thursday 28th of May**

08:15 - 09:00 Registration

09:00 - 09:10 **Welcome Note**

Per -Olof Berggren, Kerstin Brismar, Juleen Zierath

09:10 - 09:30 **Living with Diabetes**

*Karin Hehenberger, Karolinska Institutet and Lyfebulb, NY, USA*

**Islet Cell Biology and Pathophysiology**

*Chair: Helena Edlund, Umeå University, Sweden*

09:30 - 10:00 **Insight into Pancreatic Islet Cell Physiology/Pathology**

*P-O Berggren, Karolinska Insitutet*

10:00 -10:30 **Treating Types 1 and 2 Diabetes without Insulin: Rationale and Results**

*Roger Unger, Southwestern Medical School, University of Texas, Dallas, TX, USA*

10:30 - 11:00 COFFEE BREAK

11:00 - 11:30 **Genetic Insights into Human Beta Cells**

*Andrew Hattersley, University of Exeter Medical School, Exeter, UK*

**Regulation of Metabolism through Specific Cell Signaling**

*Chair: Claes-Göran Östenson, Karolinska Institutet*

11:30 - 12:00 **New Mechanisms of Insulin Receptor Signaling and Tissue Crosstalk in Insulin Resistance**

*C Ronald Kahn, Joslin Diabetes Center, Harvard Medical School, Boston, MA, USA*

12:00 - 13:30 LUNCH AT NOBEL FORUM

13:30 - 14:00 **FGF21: Fasting, Feasting and Pharmacology**

*David J Mangelsdorf, Southwestern Medical School, University of Texas, Dallas,TX, USA*

14:00 - 14:30 **AMP - Activated Protein Kinase: Regulating Energy Balance at the Cellular and Whole**

**Body Levels**

*Grahame Hardie, University of Dundee, Dundee, Scotland, UK*

14:30 - 15:00 **Altered DNA methylation of glycolytic and lipogenic genes in skeletal muscle and liver from obese and type 2 diabetic patients**

*Juleen Zierath, Karolinska Institutet*

15:00 - 15:30 COFFEE BREAK

**Regulation of Food Intake and Energy Balance**

*Chair: Martin Ingvar, Karolinska Institutet*

15:30 - 16:00 **Leptin and the Neural Circuit Regulating Food Intake and Metabolism**

*Jeffrey Friedman, Rockefeller University, NY, USA*

16:00 - 16:30 **Metabolic Disease: Lessons from human genetics**

*Sir Stephen O’Rahilly, Cambridge University, Cambridge, UK*

16:30 - 17:00 **Role of Gut Microbiota in the Pathogenesis of Diabetes**

*Fredrik Bäckhed, Wallenberg Laboratories Göteborg University, Sweden*

**Day 2 Friday 29th of May**

**Fat metabolism**

*Chair: Jan Nedergaard , Stockholm University*

9:00 - 9:30 **Brown and Beige Fat: Mitochondrial Bioenergetics and a Novel Thermogenic Pathway**

*Bruce Spiegelman, Dana-Faber Cancer Institute, Harvard Medical School, Boston, MA, USA*

9:30 - 10:00 **Turnover of Human Fat Cells and their Lipid Content**

*Peter Arner, Karolinska Institutet*

10:00 - 10:30 **Human Brown Fat as a Therapeutic Target**

*Sven Enerbäck, Göteborg University, Sweden*

10:30 - 11:00 COFFEE BREAK

**Late Complications**

*Chair: Mikael Rydén, Karolinska Institutet*

11:00 - 11:30 **Diabetes Complications, New Mechanisms**

*Kerstin Brismar, Karolinska Institutet*

11:30 - 12:00 **Genetics of Diabetic Nephropathy**

*Karl Tryggvason , Karolinska Institutet, Duke-NUS Graduate Medical School, Singapore*

12:00 - 13:30 LUNCH AT NOBEL FORUM

13:30 - 14:00 **Immune Modulation of Lipoprotein Metabolism and Atherosclerosis**

*Göran Hansson, Karolinska Institutet*

14:00 - 14:30 **Epigenetic Changes, Oxidative Stress and Vascular Disease in Diabetes**

*Francesco Cosentino, Karolinska Institutet*

14:30 - 15:00 **Insulin: the Diabetes-Cancer connection**

*Lewis Cantley, Weill Cornell Medical College, NY, USA*

15:00 - 15:30 COFFEE BREAK

15:30 - 16:15 **Discussion and conclusions**