



1st European Immunometabolism Conference: Metabolism Meets immunology

26-28 June 2024; Comwell Køge Strand, Køge, Denmark

SCIENTIFIC PROGRAM

Wednesday, June 26th

12:50 Welcome Address and a word from the Novo Nordisk Foundation

SESSION I – METABOLIC REGULATION OF INNATE IMMUNITY

Chairs: Luciana Berod (Germany) and David Finlay (Republic of Ireland)

13:10 Bart Everts (Leiden University Medical Center, Netherlands) – *O-GlcNAcylation: Hitting the sweet spot of myeloid cells*

13:30 Thomas Weichhart (Medical University of Vienna, Austria) – *Metabolic regulation of tissue homeostasis by macrophages*

13:50 David Sancho (Centro Nacional de Investigaciones Cardiovasculares, Spain) – *Mitochondrial electron transport chain orchestrates dendritic cell function*

14:10 Maria G. Ledesma-Colunga (Dresden University of Technology) – *Parsing the role of transferrin receptor 2 on modulating metabolic changes in IFN γ stimulated macrophages*

14:20 Anna Parolini (Università degli Studi di Milano) – *Neutrophil aging is actively involved in the immunometabolic response to high fat diet*

14:30 Anouk Ewen (Luxembourg Institute of Health) – *Beyond ubiquitination: Ubc13 in the core of mitochondrial regulation and innate immunity*

14:40 Coffee Break

SESSION II – METABOLIC REGULATION OF ADAPTIVE IMMUNITY

Chairs: Anna Schurich (UK) and Giuseppe Danilo Norata (Italy)

15:10 Linda Sinclair (University of Dundee, Scotland) – *Nutrient transport in T cells*

15:30 Mauro Corrado (University of Cologne, Germany) – *Systemic effects of metabolic deficiencies in T cells*

15:50 Luciana Berod (University Medical Center Mainz, Germany) – *Postranslational modifications at the crossroad between metabolism and immunity*

16:10 Yu-San Kao (Johannes Gutenberg-University Mainz) – *Targeting ACC1 in T cells ameliorates psoriatic skin inflammation*

16:20 Megan Teh (University of Oxford) – *Iron restricted CD8⁺ T-cells display metabolic perturbations and show sensitivity to aspartate supplementation*

16:30 Simon Hirschberger (Ludwig-Maximilian-University) – *Cytotoxic T-cell immunometabolic paralysis through stress-induced mitochondrial hyperfusion after major surgery*

16:40 Coffee Break

17:10 KEYNOTE SPEAKER 1

Chair: Thekla Cordes (Germany)

Christoph Hess (University of Cambridge) – *Epstein Barr Virus – searching for a metabolic Achilles' heel*

19:30 Dinner

20:30 Posters and mingling



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Thursday, June 27th

SESSION III – IMMUNOMETABOLISM IN CANCER

Chair: Mauro Corrado (Germany) and Dirk Brenner (Luxembourg)

- 08:30 Anna Schurich (King's College London, UK)** – *Metabolic regulation in CAR T cells*
- 08:50 Massimiliano Mazzone (VIB-KU Leuven, Belgium)** – *Harnessing tumor metabolism to overcome immunosuppression*
- 09:10 Per thor Straten (University of Copenhagen, Copenhagen)** – *The exercise of tinkering with the immune system*
- 9:30 Sofie Hedlund Møller (Ludwig Institute of Cancer Research/Université de Lausanne)** – *IFN-I-mediated effector program of tumor-specific CD8+ T cells in the tumor draining lymph node*
- 9:40 Karen Slattery (Trinity College Dublin)** – *Dysregulated lipid metabolism is a key driver of immunosuppression in ovarian cancer*
- 9:50 Paulina Garcia-Gonzalez (Centre d'Immunologie de Marseille-Luminy)** – *Unraveling metabolic plasticity and epigenetic dynamics in acute myeloid leukemia: insights into therapeutic resistance and immune modulation*
- 10:00 Coffee Break**

SESSION IV – NEW TECHNOLOGIES AND TRANSLATIONAL APPROACHES

Chairs: Thomas Weichhart (Austria) and Bart Everts (Netherlands)

- 10:30 David Finlay (Trinity College, Dublin, Republic of Ireland)** – *Using Click chemistry to study nutrient uptake in single cells*
- 10:50 Jan Van den Bossche (Amsterdam UMC, Netherlands)** – *Entering a second decade of macrophage immunometabolism research*
- 11:10 Rafael José Argüello (Center of Immunology of Marseille Luminy, France)** – *Metabolism as a new layer in the single cell multi-omics field*
- 11:30 Yarden Engel (The Hebrew University of Jerusalem)** – *Generating Metabolically Superior T Cells as a Novel Immunotherapy to Treat Solid Tumors*
- 11:40 Birte Dowerg (TU Braunschweig)** – *Quantification of mitochondrial metabolism and fluxes in anchorage-independent cultures during viral infections*
- 11:50 Kristine Bertheussen (Leiden University)** – *Quantifying oleic acid uptake at the single-cell level*
- 12:00 Lunch Break (including group photo)**

SESSION V – IMMUNOMETABOLISM IN CARDIOMETABOLIC DISEASES

Chairs: Linda Sinclair (Scotland) and David Sancho (Spain)

- 13:10 Soraya Taleb (Paris-Centre de Recherche Cardiovasculaire, Inserm, France)** – *Role of intestinal tryptophan metabolism in atherosclerosis*
- 13:30 Giuseppe Danilo Norata (University of Milan, Italy)** – *Lipoproteins and lipid cell-specific metabolic checkpoints to modulate the immune response*
- 13:50 Kate Lykke Lambertsen (University of Southern Denmark, Denmark)** – *The role of TNF in obesity and stroke*
- 14:10 Gareth Purvis (University of Oxford)** – *Exposure to elevated cholesterol results in a non-reversible epigenetic and metabolic shift in macrophages associated with increased residual inflammatory risk.*



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- 14:20 Jakob Hansen** (University of Southern Denmark) – Insights into the role of NPC2 in vascular inflammation and atherosclerosis
- 14:30 Aitor Jarit Cabanillas** (CNIC-Spanish National Centre for Cardiovascular Diseases) – Calcineurin/NFAT signalling reprograms the epigenomic landscape during innate trained immunity
- 14:40 Coffee Break**
- 15:10 Round Table – Diversity in Science and Career Perspectives**
- 16.10 Short break**
- 16:20 KEYNOTE SPEAKER 2**
Chair: Claus Desler (Denmark)
Inge Marie Svane (University of Copenhagen, Denmark) – *T cells fit for fighting cancer*
- 19:30 Dinner**
- 20:30 Posters and mingling**

Friday, June 28th

SESSION VI – IMMUNOMETABOLISM IN INFECTIONS

Chairs: Massimiliano Mazzone (Belgium) and Jan Van den Bossche (Netherlands)

- 08:30 Thekla Cordes** (University of Braunschweig, Germany) – *Signaling roles of mitochondrial metabolites influencing inflammation*
- 08:50 Dirk Brenner** (LIH & University of Luxembourg, Luxembourg) – *cROSSroads: Bacterial Infections, Metabolic Adaptations of T Cells and Mucosal Immunity*
- 09:10 Maxim Nosenko** (Trinity College Dublin, Ireland) – *Immunometabolic targeting of NK cells in bacterial infections and sepsis*
- 09:30 Fran Prenen** (Rega Institute for Medical Research) – JAK/STAT inhibition restores disease tolerance in malaria-infected glucocorticoid receptor knockout mice by preventing lethal hypoglycemia
- 09:40 Sheila Macharia** (Lancaster University) – IgM is a regulator of pleural cavity macrophage metabolism
- 09:50 Graham Heieis** (Leiden University Medical Center) – O-GlcNAcylation acts as a metabolic break to maintain macrophage residency
- 10:00 Coffee Break**
- 10:30 KEYNOTE SPEAKER 3**
Chair: Rafael José Argüello (France)
Elina Zuniga (University of California San Diego, USA) – *Multi-system response to infection*
- 11:30 Awards and closing remarks**
- 12:00 Lunch**
- 13:00 Departures**