

KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

Maternal-Fetal Newborn Immunity (EK1)

October 28-29, 2021 • Virtual at your computer

Scientific Organizers: Tobias R. Kollmann, Sing Sing Way, Sabra L. Klein and Arnaud Marchant

Supported by the Directors' Fund

THURSDAY, OCTOBER 28

Welcoming Remarks and Keynote Address (8am Denver/Mountain Time Start)

***Tobias R. Kollmann**, Telethon Kids Institute, Australia

Joy Lawn, London School of Hygiene & Tropical Medicine, UK
30 Million Vulnerable Newborns Annually: What Next for Highest Impact in Programmes and Research

MOA (8:40am Denver/Mountain Time Start)

***Tobias R. Kollmann**, Telethon Kids Institute, Australia

***Sing Sing Way**, Cincinnati Children's Hospital, USA

Brice Gaudilliere, Stanford University School of Medicine, USA
Multi-Omic Trajectories in Healthy and Pathological Pregnancies

Petra Arck, University Medical Center Hamburg, Germany
Maternal Mediators Impacting on Offspring's Immunity and Health

James L. Wynn, University of Florida, USA

Neonatal Sepsis Mechanisms

Steven Schepanski, University Medical Center Hamburg-Eppendorf, Germany

Short Talk: Maternal Microchimeric Cells Shape Offspring's Brain Function by Regulating Microglia Inflammation

Kenichiro Motomura, Wayne State University School of Medicine, USA

Short Talk: The Maternal and Fetal Contribution of NLRP3 Signaling in the Pathophysiology of Preterm Labor and Birth

Whitney Harrington, University of Washington, USA

Short Talk: Factors Influencing Maternal Microchimerism throughout Infancy and its Impact on Infant T Cell Immunity

Poster Session (11:30am Denver/Mountain Time Start)

Meet the Editors (12:30pm Denver/Mountain Time Start)

Zeljko Durdevic, EMBO Press, Germany

Gaia Trincucci, Journal of Experimental Medicine, USA

Tolerance & Perturbers (3pm Denver/Mountain Time Start)

***Sing Sing Way**, Cincinnati Children's Hospital, USA

***Tobias R. Kollmann**, Telethon Kids Institute, Australia

Tamara Tilburgs, Cincinnati Children's Hospital, USA
The Role of HLA-G+ Extravillous Trophoblasts in Tolerance and Immunity at the Human Maternal-Fetal Interface

Tippi MacKenzie, University of California, San Francisco, USA
Fetal-Maternal Tolerance. Mechanisms, Problems (Answer: Local or Systemic?)

Kjersti M. Aagaard, Baylor College of Medicine and Texas Children's Hospital, USA

Womb with a View: Host-Microbiome Tolerance and Impact on Early Life Outcomes

Carolyn B. Coyne, Duke University, USA

Antiviral Signaling at the Maternal-Fetal Interface

Joseph J. Stevens, Cincinnati Children's Hospital Medical Center, USA

Short Talk: Balance between Protective and Pathogenic Immune Responses to Pneumonia in the Neonatal Lung Enforced by Gut Microbiota

Gabrielle Rizzuto, University of California, San Francisco, USA

Short Talk: Establishment of Fetomaternal Tolerance via Glycan-Mediated B Cell Suppression

Meyer Gershater, Wayne State University School of Medicine, USA

Short Talk: Interleukin-22 Plays a Dual Role in Maternal-Fetal Immunity: Fetal Tissue Injury and Host Defense Against Microbes

FRIDAY, OCTOBER 29

Interventions Now (8am Denver/Mountain Time Start)

***Sabra L. Klein**, Johns Hopkins University, USA

***Arnaud Marchant**, Université libre de Bruxelles, Belgium

Kevin C. Kain, University of Toronto, Canada

Trials on L-Arginine Supplementation and Reduction in SB & PTB

Mihai G. Netea, Radboud University, Netherlands

Trans-Generational Protection against Infections

Tobias R. Kollmann, Telethon Kids Institute, Australia

Final Common Pathway of Neonatal Sepsis is the Endothelial Interphase Where Ang1/2 Can Intervene

Dorothee Viemann, Hannover Medical School, University Hospital of Würzburg, Germany

S100 as Therapeutics

Valerie Verhasselt, University of Western Australia, Australia
Colostrum: The Missing Link for Healthy Immune Development?

Michelle Giles, Monash University, Australia

Short Talk: Associations between Maternal Immunisation and Reduced Rates of Preterm Birth and Stillbirth: A Population Based Retrospective Cohort Study

Archita Mishra, Agency for Science, Technology and Research (A*STAR), Singapore

Short Talk: Human Fetal Immunity and Microbial Priming in Early Life

Career Roundtable (12pm Denver/Mountain Time Start)

Tippi MacKenzie, University of California, San Francisco, USA

Joy Lawn, London School of Hygiene & Tropical Medicine, UK

Ajoke Sobanjo-ter Meulen, Bill and Melinda Gates Foundation, USA

Networking Lounge (2pm Denver/Mountain Time Start)

Mechanistic Insight to Guide Future (3pm Denver/Mountain Time Start)

***Arnaud Marchant**, Université libre de Bruxelles, Belgium

***Sabra L. Klein**, Johns Hopkins University, USA

Sing Sing Way, Cincinnati Children's Hospital, USA

Pregnancy and Early Life (Immunological) Memories

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Galit Alter, MIT and Harvard University, USA

Transfer of Placental and BM Ab – Systems approach. How is the Transfer of Ab Regulated? Does this Relate to Infection Risk

Atyeo Caroline, Harvard University/Ragon Institute, USA

Short Talk: COVID-19 mRNA Vaccines Drive Differential Fc-Functional Profiles in Pregnant, Lactating, and Non-Pregnant Women

Matilda Moström, Tulane University School of Medicine, USA

Short Talk: Immune Profile of the Normal Maternal-Fetal Interface in Rhesus Macaques and Its Alteration Following Zika Virus Infection

Kristin Thiele, University Medical Center Hamburg-Eppendorf, Germany

Short Talk: Immune Memory in Pregnancy: CD4+ Regulatory T Cell Frequencies are Functionally Involved in the Improved Outcome of Subsequent Pregnancies in Mice

Closing Keynote Address (5pm Denver/Mountain Time Start)

***Arnaud Marchant**, Université libre de Bruxelles, Belgium

Ajoke Sobanjo-ter Meulen, Bill and Melinda Gates Foundation, USA

The Potential of Maternal Immunization to Protect Mothers, Fetuses and Newborns