

4<sup>th</sup> Global Virtual Symposium on

# **TOXOPLASMOSIS**

March 20-21, 2024

**Time Zone:** Eastern Time ( US & Canada )

**Symposium Chair**

**Prof. Dominique Soldati-Favre**, University of Geneva, Switzerland

09:00 - 09:10 Welcome and Introductory Remarks by  
**Prof. Dominique Soldati-Favre**, University of Geneva, Switzerland

### Host-Parasite Interaction: Surviving in the Host 1

**Session Chair: Clare Harding**, University of Glasgow, United Kingdom

09:10 - 09:35 **Cyrille Botte**, Universite Grenoble Alpes, France  
Host-Apicomplexa parasites metabolic interactions: it's all about lipids!

09:35 - 10:00 **Nishith Gupta**, Birla Inst. of Tech. & Science (BITS), Hyderabad, India  
PtdSer and PtdThr-mediated regulation of lytic cycle in *Toxoplasma*

10:00 - 10:25 **Laura Knoll**, University of Wisconsin-Madison, WI, USA  
The host lipid metabolism networks determine whether linoleic acid inhibits or enhances the growth of *Toxoplasma gondii*

10:25 - 10:50 **Ira Blader**, University at Buffalo's Jacobs School of Medicine and Biomedical Sciences, NY, USA  
The role of oxygen sensing proteins in *Toxoplasma* growth and virulence

10:50 - 11:10 Break

### Host-Parasite Interaction: Surviving in the Host 2

**Session Chair: Francesca Torelli**, The Francis Crick Institute, United Kingdom

11:10 - 11:35 **Moritz Treeck**, Gulbenkian Institute, Portugal and The Francis Crick Institute, United Kingdom  
Of mice and men: Survival strategies of *Toxoplasma* in different hosts

11:35 - 12:00 **Yifan Wang**, University of Michigan Medical School, MI, USA  
Host E3 ubiquitin ligase ITCH mediates *Toxoplasma gondii* effector GRA35-triggered NLRP1 inflammasome activation and cell-autonomous immunity

12:00 - 12:25 **Maritza Jaramillo**, Institut National de la Recherche Scientifique, Quebec, Canada  
Dysregulation of FOXO3a-dependent host transcriptional programs during *Toxoplasma gondii* infection

12:25 - 12:50 **Leonardo da Silva Augusto**, University of Nebraska Medical Center, NE, USA  
Preparing the meal: *Toxoplasma* exploits host ER pathways to persist

12:50 - 13:10 Break

### Host-Parasite Interactions: Interactions in Different Organs

**Session Chair: Patrick Rimple**, University of Michigan, MI, USA

13:10 - 13:35 **Anita Koshy**, The University of Arizona, AZ, USA  
Redefining *Toxoplasma gondii*-neuron interactions

13:35 - 14:00 **Pascale Guiton**, Santa Clara University, CA, USA  
*Toxoplasma* breach of the intestinal mucosal barrier

14:00 - 14:25 **Jon P Boyle**, University of Pittsburgh, PA, USA  
*Toxoplasma gondii* infection disrupts placental trophoblast development

14:25 - 14:45 Break

## Understanding Toxoplasmosis

**Session Chair: Julia Romano**, Johns Hopkins University, MD, USA

- 14:45 - 15:10 **Karen Shapiro**, UC Davis School of Veterinary Medicine, CA, USA  
Severe and unusual presentation of toxoplasmosis in sea otters associated with the atypical COUG strain
- 15:10 - 15:35 **William J Sullivan**, Indiana University School of Medicine, IN, USA  
"Translational" research in *Toxoplasma gondii*
- 15:35 - 16:00 **Rima McLeod**, The University of Chicago, IL, USA  
Novel insights into prevention, treatment and consequences of toxoplasmosis

**End of the Day 1**

08:30 - 08:40 Day 2 Opening Remarks

## Toxoplasma Cell Biology 1

**Session Chair: Shikha Shikha**, University of Glasgow, United Kingdom

08:40 - 09:05 **Mathieu Gissot**, The Pasteur Institute of Lille, France  
The PP1 phosphatase exhibits pleiotropic roles controlling both the tachyzoite cell cycle and amylopectin-steady state levels in *Toxoplasma gondii*

09:05 - 09:30 **Manlio Di Cristina**, University of Perugia, Italy  
The *Toxoplasma* PQ-loop protein TgMPDU1 is essential for efficient parasite mannosylation

09:30 - 09:55 **Aoife T Heaslip**, University of Connecticut, CT, USA  
Intracellular cargo transport depends on a dynamic actin cytoskeleton in *Toxoplasma gondii*

09:55 - 10:20 **Honglin Jia**, Chinese Academy of Agricultural Sciences Harbin Veterinary Institute, China  
A novel scramblase is required for the IMC biogenesis in *Toxoplasma gondii*

10:20 - 10:40 Break

## Toxoplasma Cell Biology 2

**Session Chair: Andrew Ewan Maclean**, University of Glasgow, United Kingdom

10:40 - 11:05 **Dominique Soldati-Favre**, University of Geneva, Switzerland  
Evolutionary insights into the assembly of mitoribosomes in alveolates

11:05 - 11:30 **Rosa M Andrade**, UCI School of Medicine, CA, USA  
From gold to oxidation: Unraveling the role of superoxide dismutase in the mitochondrion of *Toxoplasma gondii*

11:30 - 11:55 **Lilach Sheiner**, University of Glasgow, United Kingdom  
The *Toxoplasma gondii* mitoribosome

11:55 - 12:15 Break

## Toxoplasma Cell Biology 3

**Session Chair: Karine Le Roch**, University of California, Riverside, CA, USA

12:15 - 12:40 **Maria Eugenia Francia**, Pasteur Institute of Montevideo, Uruguay  
Dissection of the molecular mechanisms of centrosome biogenesis in *Toxoplasma gondii*

12:40 - 13:05 **Klemens Engelberg**, Boston College, MA, USA  
Gymnastics of the *T. gondii* daughter cytoskeleton

13:05 - 13:30 **Laura Vanagas**, National Scientific and Technical Research Council, Argentina  
Epigenetic regulation in *Toxoplasma gondii* role of the double variant nucleosome H2A.Z/H2B.Z

13:30 Closing Remarks



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