

### General Program International *Toxoplasma* Congress (Toxo XV)

### Wednesday 19 June 2019

1:00 – 3:00 PM	Registration
5:00 – 5:30 PM	Welcome words
5:30 – 7:15 PM	Session I - Epidemiology and environmental studies Discussion Leaders: Patricia Conrad- David Fergusson
5:30 – 5:45 PM	101. Amazonian toxoplasmosis outbreak in an Amerindian village of French Guiana. Magalie Demar.
5:45 – 6:00 PM	102. <i>Toxoplasma gondii</i> in cats in Denmark: seroprevalence and risk factors. <b>Pikka Jokelainen.</b>
6:00 – 6:15 PM	103. Multi-Scale Model of <i>Toxoplasma</i> transmission. Juan B. Gutierrez
6:15 – 6:30 PM	104. Seroprevalence and risk factors of <i>Toxoplasma gondii</i> in sheep and Goats in French Guiana. Laghoe-nguembe Gina Laure
6:30 – 6:45 PM	105. Distribution and virulence of <i>Toxoplasma gondii</i> genotypes in southern sea otters ( <i>Enhydra lutris</i> nereis). <b>Karen Shapiro</b>
6:45 – 7:00 PM	106. Food safety assessment and risk for foodborne toxoplasmosis in school restaurants in Armenia; Colombia. <b>Jorge E. Gómez</b>
7:00 – 7:15 PM	107. <i>Toxoplasma gondii</i> seroprevalence in pregnant women from a rural population of Buenos Aires province; Argentina. Elias Maximiliano Rivera













8:00 – 9:00 PM Folklorical presentation

9:00 PM

Buffet dinner

### Thursday 20 June 2019

8:00 – 9:45 AM	Session II - Inmunology Discussion Leaders: Jonathan Howard- Eva Frickel
8:00 – 8:15 AM	108. Role of Immunity-Related GTPases for maintaining virulent <i>Toxoplasma gondii</i> in wild rodents. <b>Francesca Torelli</b>
8:15 – 8:30 AM	109. Impact of <i>Toxoplasma gondii</i> ropthry proteins ROP5 and ROP18 on inflammasome activation and cell death. <b>Mateo Murillo Leon</b>
8:30 – 8:45 AM	110. Molecular basis of <i>Toxoplasma</i> PV membrane targeting by IRGB6. Masahiro Yamamoto
8:45 – 9:00 AM	111. Human GBP1 drives apoptosis of <i>Toxoplasma</i> -infected macrophages. <b>Eva Frickel</b>
9:00 – 9:15 AM	112. Role of IFN-γ-dependent ubiquitination in the resistance of mouse cells against <i>T. gondii.</i> <b>Ana Rodrigues</b>
9:15 – 9:30 AM	113. Regulation of IL-1β Production and Release During <i>T. gondii</i> Infection of Primary Human Monocytes. <b>William Pandori</b>
9:30 – 9:45 AM	114. Highly prevalent Irgb2-b1PWK allele in South American mice provides advantageous resistance against local <i>Toxoplasma gondii</i> strains. <b>Catalina Alvarez</b>

10:00 – 10:45 AM

Coffee Break













10:00 –12:15 PM	Session III - Cell Cycle Discussion Leaders: Lilach Sheiner- Maria Francia
10:30 – 10:45 AM	115. The <i>Toxoplasma gondii</i> cyst wall: Composition and Interactome. <b>Vincent Tu.</b>
10:45 – 11:00 AM	116. Loss of a bradyzoite-specific cyclin leads to a "super tachyzoite" that is more virulent and completely resistant to alkaline-stress. <b>Carmelo Alvarez</b>
11:00 – 11:15 AM	117. Regulation of <i>T. gondii</i> cell-cycle dependent expression profiles by ApiAP2 transcription factors. <b>Mathieu Gissot</b>
11:15 – 11:30 AM	118. Study of the biological importance of <i>Toxoplasma gondii</i> H2B.Z histone and function of its acetylated lysines. <b>Laura Vanagas</b>
11:30 – 11:45 AM	119. A photoactivatable crosslinking system reveals organization of the <i>Toxoplasma</i> inner membrane complex. <b>Peter Bradley</b>
11:45 – 12:00 PM	120. Pushing the Envelope: Unconventional Kinetochores and Modes of Chromosome Segregation in parasitic Alveolates. <b>Eelco Tromer</b>
12:00 – 12:15 PM	121. Identification of a master regulator of differentiation in <i>Toxoplasma.</i> Benjamin Waldman.
12:15 – 1:00 PM	Lunch
1:00 – 2:00 PM	Discussion groups
2:00 – 4:00 PM	Session IV - Biochemistry I Discussion Leaders: Maryse Lebrun - Jeroen Saeij













2:00 – 2:15 PM	122. Contribution of the apicoplast to <i>Toxoplasma</i> survival and persistence as a latent stage. <b>Sebastien Besteiro</b>
2:15 – 2:30 PM	123. Contribution of Developmentally Regulated Metabolic Enzymes to Stage Conversion During <i>Toxoplasma</i> Pathogenesis. <b>Emily Quach</b>
2:30 – 2:45 PM	124. Fat matters: global profiling of myristoylation in <i>Toxoplasma gondii</i> reveals an unexpected role for lipidation on a type-I microneme protein important for host cell invasion. <b>Moritz Treeck</b>
2:45 – 3:00 PM	125. Metabolomic perspective on the three major isotypes of Toxoplasma gondii and the formation of tissue cysts. <b>Martin Blume</b>
3:00 – 3:15 PM	126. Triazine nitriles targeting Cathepsin Protease L and chronic <i>Toxoplasma</i> infection. <b>Vern Carruthers</b>
3:15 – 3:30 PM	127. A fern able to affect viability of <i>Toxoplasma gondii in vitro.</i> Jhony Anacleto Santos
3:30 – 3:45 PM	128. Resilience through disorder? Investigating LEA protein potential to protect <i>Toxoplasma gondii</i> oocysts from stress. <b>Benedikt Fabian</b>
4:00 – 4:30 PM	Coffee Break
4:30 – 6:30 PM	Session V - Genomics, transcriptomics and evolution Discussion Leaders: David Roos- Jessica Kissinger
4:30 – 4:45 PM	129. ToxoDB: The Functional Genomic Resource for <i>Toxoplasma gondii.</i> <b>Omar Harb</b>











445 – 5:00 PM	130. High-resolution spatial proteome map of <i>Toxoplasma gondii.</i> Konstantin Barylyuk
5:00 – 5:15 PM	<ul><li>131. High-throughput single cell sequencing to identify <i>Toxoplasma gondii</i> transcriptional effectors.</li><li>Simon Butterworth</li></ul>
5:15 – 5:30 PM	132. Revaluation of the <i>N. caninum</i> and <i>T. gondii</i> genomes reveals large chromosomal rearrangements, misassembly and lack of synteny. Maria Francia
5:30 – 5:45 PM	133. The Highly-Unusual yet Evolutionarily Conserved Mitochondrial Genome Sequence of the Coccidian <i>Toxoplasma</i> <i>gondii.</i> Jessica Kissinger
5:45 – 6:00 PM	134. Virulence Shift in a Sexual Clade of Type X <i>Toxoplasma</i> Infecting Southern Sea Otters. <b>Michael Grigg</b>
6:00 – 6:15 PM	135. Tracing migration history of Japanese <i>Toxoplasma</i> population based on genome-wide SNP analysis. <b>Motomichi Matsuzaki</b>
6:15 – 6:30 PM	136. Understanding the role of mitochondrial-pellicle membrane contact sites in <i>Toxoplasma gondii.</i> <b>Kylie Jacobs</b>
6:30 – 7:30 PM	Poster Session I
8:30 – 9:00 PM	Dinner
9:00 PM	Onwards Poster Session I

#### Friday 21 June 2019

8:00 –10:00 AM Session VI - Host parasite interactions I Discussion Leaders: Martin Blume- Sebastien Besteiro











8:00 – 8:15 AM	137. An alveolate conserved mechanism is implicated in rhoptry secretion in apicomplexa. Maryse Lebrun
8:15 – 8:30 AM	138. Identification and functional analysis of a novel daughter- enriched <i>Toxoplasma</i> IMC protein. <b>Peter Back</b>
8:30 – 8:45 AM	139. ROP55 a new rhoptry protein that subverts host cell response and mediates virulence of <i>Toxoplasma gondii.</i> Diana Marcela Penarete Vargas
8:45 – 9:00 AM	140. Preventing cellular senescence as a means to promote parasite replication and suppress inflammatory responses: new insights from the <i>Toxoplasma</i> /Hammondia hammondi system. Jon Boyle
9:00 – 9:15 AM	141. Neurons clear <i>Toxoplasma gondii</i> through interferon- mediated mechanisms. Joshua Kochanowsky
9:15 – 9:30 AM	142. Chronic <i>Toxoplasma gondii</i> elicit transcriptional changes in host cells to prevent IFN gamma-mediated cell death. <b>Simona Seizova</b>
10:00 – 10:30 AM	Coffee Break
10:30 – 12:00 PM	Session VII - Immunology II Organization: Nestor Cardona - Kirk Jensen
10:30 – 10:45 AM	143. Persistent <i>Toxoplasma</i> Infection of the Brain Induced Neurodegeneration associated with Activation of Complement and Microglia. <b>Jianchun Xiao</b>
10:45 – 11:00 AM	144. The naïve CD8 T cell IFN; response is intersected by multiple <i>T. gondii</i> effectors and the host inflammasome. <b>Kirk Jensen</b>









11:00 – 11:15 AM	145. Human chronic toxoplasmosis is accompanied by changes in the phenotype and reactivity of PBMC-derived monocytes. <b>Carsten Lüder</b>
11:15 – 11:30 AM	<ul><li>146. Vascular remodeling and trafficking of intracellular parasites revealed by intravital imaging of the brain during <i>T. gondii</i> infection.</li><li>Christine Schneider Lewis</li></ul>
11:30 – 11:45 AM	147. Immunity to <i>Toxoplasma gondii</i> -Nfkbid and the antibody response to the GPI anchor. <b>Scott Souza.</b>
11:45 – 12:00 PM	<ul><li>148. Cachexia is a cost of long-term reliance on innate immune tolerance programs in chronic <i>Toxoplasma</i> infection.</li><li>Sarah Ewald</li></ul>
12:00 – 1:00 PM	Lunch
2:00 – 4:00 PM	Session VIII - Clinical toxoplasmosis. Organization: Alejandra de la Torre - Alexander Pfaff
2:00 – 2:15 PM	149. Point-of-care test for anti- <i>Toxoplasma</i> antibodies: a Novel paradigm. <b>Rima Mcleod</b>
2:15 – 2:30 PM	150. An alternative method to obtain specific IgM <i>T. gondii</i> epitopes to be used as diagnostic tools. <b>Greta Ripoll Pastor</b>
2:30 – 2:45 PM	151. Standardization of an ELONA assay for <i>Toxoplasma gondii</i> ROP18 detection in Human Serum Samples. <b>Monica Vargas Montes</b>



2445 – 3:00 PM	152. Apolipoprotein A1 May Play A Role in Protection Against <i>Toxoplasma gondii</i> : Potential for A New Biomarker?. <b>Kamal El Bissati</b>
3:00 – 3:15 PM	153. Evaluation Of Therapeutic Failure; Adherence To Treatment And Adverse Effects In Ocular Toxoplasmosis. <b>Juliana Muñoz Ortiz</b>
3:15 – 3:30 PM	154. Evaluation Of The Non Invasive Imaging Method Spectral Domain Optical Coherence Tomography (Sd- Oct) In Toxoplasmic Retinochoroiditis Patients. <b>Cinara Brandão De Mattos</b>
3:30 – 3:45 PM	155. <i>In vitro</i> studies on type 1 and 3 interferons in ocular toxoplasmosis. Alexander PFAFF
4:00 – 4:30 PM	Coffee Break
4:00 – 4:30 PM 4:30 – 6:00 PM	Coffee Break Session IX - Trafficking pathways Discussion Leaders: Moritz Treeck- Vern Carruthers
	Session IX - Trafficking pathways
4:30 – 6:00 PM	Session IX - Trafficking pathways Discussion Leaders: Moritz Treeck- Vern Carruthers 156. Characterization of protein effector export in the bradyzoite stage of <i>Toxoplasma</i> .

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5 <b>15 –</b> 5:30 PM	159. K13 homolog in <i>Toxoplasma</i> associates with endocytic adaptors and a pore in the inner membrane complex. <b>Aoife Heaslip</b>
5:30 – 5:45 PM	160. An unconventional myosin controls the positioning of the endosome-like compartments in <i>Toxoplasma gondii.</i> <b>Aoife Heaslip</b>
5:45 – 6:00 PM	161. Lipid asymmetry and SNARE associated proteins drive secretory organelles fusion and membranes biogenesis in Toxoplasma gondii. Hugo Bisio Sabaris
6:00 – 6:15 PM	162. Lost in translation. Understanding mitochondrial translation in <i>Toxoplasma.</i>
6:30 – 7:30 PM	Poster Session II
8:30 – 9:00 PM	Dinner
9:00 PM	Onwards Poster Session II

### Saturday 22 June 2019

8:00 – 10:00 AM	Session X - Host Parasite Interactions II Discussion Leaders:Aylan Arenas-Sebastian Lourido
8:00 – 8:15 AM	163. Discovery of Novel Bradyzoite Dense Granule Proteins in <i>Toxoplasma gondii</i> . <b>Amara Thind</b>
8:15 – 8:30 AM	164. Identifying host proteins that are required for <i>Toxoplasma gondii</i> sequestration of host mitochondria using quantitative mass spectrometry. Matthew Blank
8:30 – 8:45 AM	165. <i>Toxoplasma gondii</i> infection impairs myogenesis <i>in vitro.</i> Daniel Adesse

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8.45 – 9:00 AM	166. Mapping novel components of the <i>Toxoplasma</i> basal complex by BioID portrays an expanded hierarchy of its assembly. Klemens Engelberg
9:00 – 9:15 AM	167. Quantitative visualization of an acute drop in parasitophorous vacuole pH immediately prior to <i>T. gondii</i> tachyzoite egress. Mae Huynh
9:15 – 9:30 AM	168. A versatile CRISPR screening platform for tailored <i>in vitro</i> and <i>in vivo</i> genetic screens identifies novel virulence factors in <i>Toxoplasma gondii.</i> Joanna Young
9:30 – 9:45 AM	169. An in vivo CRISPR/Cas9 screen identifies a novel <i>Toxoplasma</i> rhoptry protein that modulates <i>Toxoplasma</i> dissemination by affecting migration of dendritic cells. <b>Jeroen Saeij</b>
9:45 – 10:00 AM	170. A phenotypic screen to identify actin regulatory proteins. Janessa Grech
10:00 – 10:30 AM	Coffee Break
10:30 – 12:15 PM	Session XI - Biochemistry II Discussion Leaders: Lena Pernas- Kirk Jensen
10:30 – 10:45 AM	171. <i>Toxoplasma gondii</i> an Obligate Intracellular Protozoan Pathogen Relies on Its Own Heme Biosynthesis for Infection. <b>Zhicheng Dou</b>
10:45 – 11:00 AM	172. Old target new mechanism: Antifolate inhibitor from MMV collection acts through an apicoplast mediated delayed death mechanism in apicomplexan parasites. Meenakshi Belekar Joshi







11:00 – 11:15 AM	173. Global cysteine reactivity profiling in <i>Toxoplasma gondii</i> via chemical proteomics reveals new potential drug targets. <b>Matthew Child</b>
11:15 – 11:30 AM	<ul><li>174. Simultaneous Inhibition of Both Cytochrome b Substrate Binding Sites is Synergistic against Experimental Toxoplasmosis.</li><li>Stone Doggett</li></ul>
11:30 – 11:45 AM	175. Identification of a Potential Itraconazole Target in <i>T. gondii.</i> Holland Alday
11:45 – 12:00 PM	176. Characterisation of a Candidate Protein of the <i>Toxoplasma gondii</i> Mitochondrial ATP Synthase Complex. <b>Edwin Tjhin</b>
12:00 – 12:15 PM	177. CDP-ethanolamine pathway for PtdEtn biogenesis is required for sphingolipid synthesis. Bingjian Ren
12:15 PM	Farewell

### **Posters Presentation**

#### Poster Session I (Thursday 20 June 2019)

**201.** Analysis of treatment effect in patients with ocular toxoplasmosis in Quindío; Colombia.

#### Daniel Celis Giraldo

**202.** Current situation of the management of toxoplasmosis during pregnancy in Armenia (Colombia).

#### Manuela Mejia

**203.** CXXX motif of *Toxoplasma gondii* Hsp40 TgJ1 is required for pathogenesis. **Jonathan Munera Lopez** 

**204.** Development of a SAG1-based multiplex assay for large-scale seroepidemiological surveys of IgG responses to *Toxoplasma gondii*. **Frank Seeber** 





**205.** Did maritime trade between Europe and West Africa influence *T. gondii* genetic diversity?.

Azra Hamidovic

**206.** Effect of ROP16 and ROP18 proteins of *T. gondii* on individuals with toxoplasmosis.

Alejandro Hernandez de los Rios

**207.** Evaluation of RNA extraction method; Detection of RT-qPCR from Oocysts of *Toxoplasma gondii* and its Application in Field Samples. **Jessica Triviño Valencia** 

**208.** Expression of inhibitory receptors on CD8+ T cells from ocular toxoplasmosis individuals.

Laura Garcia Lopez

**209.** First report of *Toxoplasma* gondii in bats in Colombia. **Alejandro Zamora** 

**210.** Food-borne risk (meat and vegetables) of *Toxoplasma* infection in Ibague, Colombia.

Juan David Medina

**211.** Genes from innate and adaptive immune responses in Ocular Toxoplasmosis. **Luiz De Mattos** 

**212.** Identification of factors associated with recurrences in patients with ocular toxoplasmosis in Quindío; Colombia.

### Stefany Velasco Velasquez

**213.** Immune responses of intestinal organoids from wild rodents upon infection with *Toxoplasma gondii*.

Estefania Delgado Betancourt

**214.** Oral Vaccines: Use Of Plants For The Expression Of The Main Surface Antigen 1 (Sag1) Of *Toxoplasma gondii*. **Edwin Sánchez López** 







# **215.** Population genetics and virulence of *Toxoplasma gondii*. **Chunlei Su**

**216.** Prevalence of *Toxoplasma gondii* by PCR in domestic cats stools (Felis silvestris catus) in Armenia; Quindio (Colombia) and genetic analysis of ROP18. **Alejandro Zamora** 

**217.** Seroprevalence of *Toxoplasma gondii* in domestic pigs; sheep; cattle; wild boars; and moose in the Nordic-Baltic region: systematic review and meta-analysis. **Pikka Jokelainen** 

**218.** The importance of official protocols for toxoplasmosis - report of loss of followup in children in Brazilian teaching hospital.

#### Cinara Brandão De Mattos

**219.** *Toxoplasma gondii* specific epitopes selected by bioinformatics tools elicit activation of cytotoxic activity in CD8+ T cells from individuals with toxoplasmosis. **Monica Vargas Montes** 

**220.** *Toxoplasma* restriction in immune-stimulated primary human cells. **Eva Frickel** 

**221.** Toxoplasmosis in brown hares - one of the possible causes of death and population decrease in Czech Republic. **Karol Racka** 

**222.** Toxoplasmosis in French Guiana: general review throughout preliminary results. **Magalie Demar** 

**223.** Transcriptomic analysis of human peripheral blood mononuclear cells (PBMC) from individuals with Toxoplasmosis stimulated with *T.gondii*. **Alejandro Acosta Davila** 

**224.** Vaccine Approach with the aid of synthetic biology to control *Toxoplasma gondii*. **Muhammad Imran Rashid** 

**225.** Virulence of Amazonian atypical *Toxoplasma gondii* strains in a murine model. **Magalie Demar** 





**226.** Defining Host-Pathogen Interactions Employing an Artificial Intelligence Workflow. Eva Frickel

**227.** Driving Forward: Linking Calcium and Parasite Motility. **Stephen Vella** 

**228.** How does ROP23 Contribute to Toxoplasma pathogenesis?. **Binh Cao** 

**229.** A base-exchange type phosphatidylserine synthase is essential for the lytic cycle of *Toxoplasma gondii.* 

#### **Dimitrios Alexandros Katelas**

**230.** A Golgi-resident phosphatidylinositol synthase utilizing exogenous myo-inositol and endogenous CDP-diacylglycerol is essential for the lytic cycle of *Toxoplasma gondii*.

#### **Nishith Gupta**

#### Poster Session II (Friday 21 June 2019)

**231.** A role for *Toxoplasma gondii* chloroquine resistance transporter in bradyzoite digestive vacuole maintenance and viability. **Geetha Kannan** 

**232.** An *in vitro* system to study heteroresistance and metabolic host interaction on mature tissue cysts of *Toxoplasma gondii*. **Céline Christiansen** 

**233.** Exploring possible interactions of dihydroorotate dehydrogenase with mitochondrial proteins in *Toxoplasma gondii*. **Cristian Barrera Grijalba** 

**234.** Identification and characterization of novel host mitochondria-recruitment factor of *Toxoplasma gondii.* **Kisaburo Nagamune** 













**235.** *In silico* and Experimental Study of SRS12B Protein of Toxoplasma gondii. **Juan Valencia Hernandez** 

**236.** *In silico* Identification and Expression Profiling of the Protein Disulfide Isomerase Gene Family in *Toxoplasma gondii.* **Diego Moncada** 

**237.** *In silico* identification and *in vitro* evaluation of an inhibitory peptide for ROP5 protein of *Toxoplasma gondii* RH derived from the murine Irgb2-b1-CIM protein. **Juan Arenas Garcia** 

**238.** *In silico* identification of dual inhibitors of TgCDPK1/TgCDPK3 as anti-*Toxoplasma* pharmacological alternatives. **Cristian Rocha** 

**239.** *In vitro* evaluation of new 2-hydrazono-thiazolidinones against *T.gondii* proliferation.

Diego Molina Lara

**240.** *In vivo* control of *Toxoplasma gondii* by zebrafish macrophages. **Eva Frickel** 

**241.** Mechanisms of Apicoplast Division in *Toxoplasma gondii.* **Aoife Heaslip** 

**242.** Modulation of arginase 1 in RAW 264.7 and peritonial macrophages after *Toxoplasma gondii* infection.

#### Renato Damatta

**243.** Optogenetic illumination of cAMP signaling in *Toxoplasma gondii*. **Ozlem Gunay-Esiyok** 

**244.** Studies of ApiAP2 factors reveal important features of the timing and assembly of tissue cysts. **David Hong** 

**245.** The Inositol polyphosphate pathway of *Toxoplasma gondii*. **Miryam Hortua Triana** 













**246.** Unsupervised *Toxoplasma gondii* Recognition by Fuzzy Cycle Generative Adversarial Network. **Diego Molina Lara** 

**247.** Meta-analysis of the association between toxoplasmosis and suicide attempt **Jenniffer Nessim** 

**248.** *Toxoplasma gondii* CST1 is a scaffolding protein for assembly of the cyst wall **Tadakimi Tomita** 

Organizing Commite Toxo XV.

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