

NOVEMBER 04th, 2019**Satellite Meeting: Comparative Cell Biology of Trypanosomatids****Room B Caxambu****Chair: Narcisa Cunha-e-Silva (Federal University of Rio de Janeiro, Brazil).**09h00 – 09h30 **Markus Engstler** (*Universitaet Wuerzburg, Germany*)

Towards comparative trypanosome cell biology in host and vector.

09h30 – 09h50 **Sue Vaughan** (*Oxford Brookes University, UK*)

Flagella pocket and basal body biogenesis in Trypanosomes.

09h50 – 10h10 **Juliana Cunha Vidal** (*Federal University of Rio de Janeiro, Brazil*)Morphological arrangement of subpellicular microtubules of *Trypanosoma cruzi* by high resolution microscopy10h10 – 10h30 **Richard Wheeler** (*University of Oxford, UK*)

High frame rate multi-colour and multi-focal plane microscopy to gain new insights into trypanosomatid parasite swimming

10h30 – 10h45 **Tea/Coffee****Chair: Sue Vaughan (Oxford Brookes University)**10h45 – 11h15 **Gang Dong** (*Medical University of Vienna, Austria*)

Crystal structure of the FPC3-FPC4 complex provides the first atomic view of protein interactions at the flagellar pocket collar".

11h15 – 11h35 **Aline Alves** (*Federal University of Rio de Janeiro, Brazil*)Cytoplasmic control of assembly of the paraflagellar rod in *Trypanosoma brucei*11h35 – 11h55 **Jack Sunter** (*Oxford Brookes University, UK*)Cell segregation function for the FAZ filament in *Leishmania*".11h55 – 12h15 **Keith Gull** (*University of Oxford, UK*)The mitotic spindle and genome segregation in *Leishmania* and trypanosomes: insights and issues".12h15 -12h30 **Wanderley de Souza** (*Federal University of Rio de Janeiro, Brazil*)

Three-dimensional reconstruction of trypanosomatids and their interaction with the hosts: present situation and perspectives

16h30 - 17h00 - Meeting Opening**Room A Glória**

Welcome & Announcements

17h00 - 18h00 - Samuel Pessoa Conference**Room A Glória****Chair: Lucile Floeter-Winter**Exploring the content of noncoding RNAs, putative regulatory elements, in the protozoan parasite *Leishmania***Angela Kaysel Cruz** (*FMRP, Ribeirao Preto, SP, Brazil*)**18h00 – 19h30 - Brainstorm****Iniciativa para a Ciência e Tecnologia no Parlamento – (ICTP.br)****Room A Glória****Chair: Lucile Floeter-Winter****Ildu Moreira** (*Presidente SBPC, Rio de Janeiro, RJ, Brazil*) and **Celso Pansera** (*ICTP*)**20h30 - 22h30 – Poster Session****Gymnasium**

ODD Numbers/Números ÍMPARES

09h00 – 11h00 - OP.01 - Oral Presentations**Room A***Glória***Chair:** JULIANA IDE AOKI and LEDA QUERCIA VIEIRA

HP 001 - The host cell secretory pathway mediates the export of *Leishmania* virulence factors out of the parasitophorous vacuole

Albert Descoteaux (Inrs- Centre Armand-Frappier, Laval, Canada)

HP 002 - Cyclophilin 19 a new player in oxidative stress during *Trypanosoma cruzi* infection.

Gregory Pedroso Dos Santos (Unifesp, Sao Paulo, SP, Brazil)

HP 003 - Evaluation of the attenuated and virulent *Leishmania amazonensis* infection and the characterization of its extracellular vesicles

Talita Vieira Dupin (Unifesp, Sao Paulo, SP, Brazil)

HP 004 - Functions of the BBSome protein complex in *Leishmania mexicana*

Helen P Price (Keele University, UK)

HP 005 - Assessing the replication kinetics of intracellular *Trypanosoma cruzi* during acute and chronic murine infections

Alexander Ian Ward (Lshtm, London)

HP 006 - *Leishmania* RNA virus worsens infection by limiting NLRP3 inflammasome activation through a TLR3/type I IFN/autophagy pathway

Renan Villanova Homem De Carvalho (USP, Ribeirao Preto, SP, Brazil)

HP 007 - *Trypanosoma cruzi* trypomastigotes transmigrate through 3D-cultures by a paracellular route in a protease-dependent manner

Matias Exequiel Rodriguez (Instituto De Investigaciones Biotecnologicas IIBIO - CONICET - Universidad Nacional De San Martin, Buenos Aires, Argentina)

HP 008 - *Toxoplasma gondii* induces autophagy and syncytialization in trophoblasts

Jéssica Da Silva Souza (Laboratory Of Structural Biology, Oswaldo Cruz Institute, Fiocruz, Rio De Janeiro, RJ, Brazil)

HP 009 - Amiodarone controls the *Trypanosoma cruzi* infection in pregnant Wistar rats

Cássia Mariana Bronzon Da Costa (USP, Ribeirao Preto, SP, Brazil)

09h00 - 11h00 - OP.02 - Oral Presentations**Room B***Caxambu***Chair:** NARCISA LEAL DA CUNHA-E-SILVA and LOYZE PAOLA OLIVEIRA DE LIMA

HP 010 - Effects of melatonin supplementation in pregnant Wistar rats infected with *Trypanosoma cruzi*

Cássia Mariana Bronzon Da Costa (USP, Ribeirao Preto, SP, Brazil)

HP 011 - Multimodal live imaging models for integrated analyses of *Trypanosoma cruzi* infections and digestive Chagas disease pathogenesis.

Archie A Khan (London School Of Hygiene And Tropical Medicine, London, UK)

HP 012 - Addressing the VSG expression hierarchy in *Trypanosoma brucei* using single cell RNA sequencing.

Kirsty Ross McWilliam (Ludwig-Maximilians-Universität München, Munich, Germany)

HP 013 - Changes on the *Triatoma infestans* microbiota influences *Trypanosoma cruzi* development and alters the parasite infectivity to the murine model

Carime Lessa Mansur Pontes (UFSC, Florianopolis, SC, Brazil)

**NOVEMBER 5th, 2019**

HP 014 - Differential binding affinity of *Trypanosoma cruzi* P21 protein to synthetic ligand peptide and CXCR4 receptor suggests a novel inhibitory mechanism of P21 biological activities
Thaise Lara Teixeira (UNIFESP, Sao Paulo, SP, Brazil)

HP 015 - Extracellular traps production in response to *Toxoplasma gondii* by neutrophils from domestic cats, the definitive host of the parasite
Rafael Meyer Mariante (IOC / FIOCRUZ, Rio de Janeiro, RJ, Brazil)

HP 016 - The immune checkpoint ligand CD200 up-regulation is mediated by TLR9 signaling in Leishmania infection
Thalita Camelo Da Silva Ferreira (Universidade de Sao Paulo, Sao Paulo, SP, Brazil)

HP 017 - *Toxoplasma gondii* reduces neurogenesis in Neuro2a cells and reduces proliferation, migration and gliogenesis in mouse neurospheres.
Luíza Bendia (UFRJ, Rio de Janeiro, RJ, Brazil)

HP 018 - Semi-quantitative interpretation of the DPP®-CVL test for management of dogs in endemic areas of visceral leishmaniasis
Erika Moutinho Costa (Instituto Oswaldo Cruz, Rio de Janeiro, RJ, Brazil)

11h00 - 11h30 - BREAK**Gymnasium****11h30 - 12h10 - CO.01 - Conference****Room A***Glória***Chair: Sergio Schenckman**

Reversed immunoglycomics for identification and synthesis of α -Gal biomarkers and vaccines for Chagas Disease

Igor Correia de Almeida (UTEP, El Paso, USA)

12h30 - 14h30 - LUNCH**13h30 - 14h30****Reunião do Conselho/ Board Meeting****Room***Baependi***14h30 - 16h30 - RT.01 - RoundTable
GENOME MAINTENANCE AND RNA STABILITY IN
TRYPANOSOMATIDS****Room A***Glória***Chair: Luiz Ricardo Orsini Tosi**

RT.01.1 - Control of *Trypanosoma brucei* differentiation by RNA binding proteins
Christine Clayton (Ruprecht-Karls Universitat, Heidelberg, Germany)

RT.01.2 - The influence of recombinational processes to induce dormancy in *Trypanosoma cruzi*
Carlos Renato Machado (UFMG-ICB, Belo Horizonte, MG, Brazil)

RT.01.3 - Conservation and function of the atr pathway in *Leishmania major*
Luiz Ricardo Orsini Tosi (FMRP-USP – Ribeirao Preto, SP, Brazil)

RT.01.4 - The application of novel genetic and imaging technology reveals that benzimidazole uptake in *Trypanosoma cruzi* is mediated by endocytosis
Francisco Olmo (LSHTM, London, UK)

14h30 - 16h30 - RT.02 - RoundTable	Room B	Caxambu
TOXOPLASMA GONDII BIOLOGY AND HOST INTERACTION		

Chair: Érica dos Santos Duarte

RT.02.1 - Microvascular dysfunction and neuroinflammation induced by *Toxoplasma gondii* in mice

Daniel Pedra Adesse (*FIOCRUZ-IOC, Rio de Janeiro, RJ, Brazil*)

RT.02.2 - The highly-unusual yet evolutionarily conserved fragmented mitochondrial genome of the coccidian, *Toxoplasma gondii*

Jessica C Kissinger (*University of Georgia, Athens,, USA*)

RT.02.3 - Regulation of mitochondrial morphology in *Toxoplasma gondii*

Gustavo Arrizabalaga (*Indiana University, USA*)

RT.02.4 - Investigating the contribution of the apicoplast to *Toxoplasma* survival and persistence as a latent stage

Sébastien Besteiro (*Université de Montpellier, Montpellier, France*)

16h30 - 17h00 - BREAK	Gymnasium
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17h00 - 17h30 - CO.02 - Conference	Room A	Glória
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Chair: Maria Carolina Elias

The benefit of being different: Understanding cell-to-cell heterogeneity in pathogens

Nicolai Siegel (*Ludwig-MaximilianUniversität, Martinsried, Germany*)

17h00 - 17h30 - CO.03 - Conference	Room B	Caxambu
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Chair: Osvaldo Pomílio

Drug Discovery for Neglected Tropical Diseases

Adriano Defini Andricopulo (*IFSC-USP, Sao Carlos, SP, Brazil*)

17h30 - 18h00 - CO.04 - Conference	Room A	Glória
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Chair: Edmundo Grisard

A light in the dark: Using real-time imaging to define the in vivo infection dynamics of *Trypanosoma cruzi*

Michael Lewis (*LSHTM, London, UK*)

17h30 - 18h00 - CO.05 - Conference	Room B	Caxambu
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Chair: Carlos Renato Machado

Towards the understanding of benzimidazole resistance in *Trypanosoma cruzi*

Omar Triana Chávez (*Universidad de Antioquia, Colombia*)

18h30 - 19h30 - Plenary Session of SBPz	Room B	Caxambu
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20h30 - 22h30 - Poster Session	Gymnasium
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EVEN Numbers/Números PARES

09h00 - 11h00 - OP.04 - Oral Presentations**Room A****Glória****Chair:** SANTUZA M. RIBEIRO TEIXEIRA and MARCELO SANTOS DA SILVA

PV 001 - Why is the *Leishmania* genome so plastic? Investigating the molecular mechanisms behind genome flexibility in the kinetoplastid parasite *Leishmania major*

Jennifer Ann Black (University Of Glasgow, UK)

HP 019 - Investigation of noncoding RNAs in the protozoan parasite *Leishmania braziliensis*

Natália Melquie Monteiro Teles (Dep. Of Biology, York, York, UK)

HP 020 - eIF2 kinase regulates stress granules formation in *Trypanosoma cruzi* submitted to nutrient deprivation

Sergio Schenkman (UNIFESP, Sao Paulo, SP, Brazil)

HP 021 - *Leishmania (Leishmania) amazonensis* promastigotes modulate B-1 cells activation

Natasha Ferraz De Campos Reis (UNIFESP, Diadema, SP, Brazil)

HP 022 - *Leishmania* lipophosphoglycan triggers caspase-11 and the non-canonical activation of the Nlrp3 inflammasome

Renan Villanova Homem De Carvalho (FMRP/USP, Ribeirao Preto, SP, Brazil)

HP 023 - MAP kinase (MAPK) activation profiling induced by *Trypanosoma cruzi* extracellular amastigotes (EAs) of different infectivities

Marina Ferreira Batista (UFMG, Belo Horizonte, MG, Brazil)

HP 024 - Proteomic analysis of bloodstream trypomastigotes and their extracellular vesicles reveals a complement evasion mechanism through EVs secretion in *Trypanosoma cruzi*

Lucas Daniel Caeiro (IIB-UNSAM CONICET, San Martin, Argentina)

PV 002 - Defining the structure and composition of transition fibres in the african trypanosome from a whole-genome tagging screen

Sulaiman Ahmed (Oxford Brookes, Oxford, USA)

PV 003 - The protein kinase ataxia-telangiectasia and Rad3-related (Atr) of *Leishmania major* modulates the parasite response to replication stress.

Gabriel Lamak Almeida Da Silva (Universidade de Sao Paulo, Ribeirao Preto, SP, Brazil)

09h00 - 11h00 - OP.05 - Oral Presentations**Room B****Caxambu****Chair:** SAMUEL GOLDENBERG and RENATA ROSITO TONELLI

PV 004 - Polyomic characterisation of polyene drug resistance in *Leishmania spp.*

Edubiel Arturo Alpizar (Wellcome Centre For Molecular Parasitology/University of Glasgow, Glasgow, UK)

PV 005 - New insights about the sterol biosynthesis pathway in Trypanosomatids

Elisa Cavalcante Pereira (FIOCRUZ, Rio De Janeiro, RJ, Brazil)

PV 006 - Knocking out histidine ammonia-lyase by using CRISPR-Cas9 abolish its role in *Trypanosoma cruzi* bioenergetics

Janaína De Freitas Nascimento (Universidade de Sao Paulo, Sao Paulo, SP, BRAZIL)

PV 007 - Disruption of genes encoding active trans-sialidases using CRISPR/Cas9 technology generates attenuated *Trypanosoma cruzi* mutants

Gabriela De Assis Burle Caldas (UFMG, Pedro Leopoldo, MG, Brazil)

**NOVEMBER 6th, 2019**

PV 008 - In vitro characterisation of the novel trypanosome mRNA decapping enzyme ALPH1
Paula Andrea Castañeda Londoño (University of Wuerzburg, Wurzburg, Germany)

PV 009 - Analysis of basal body genes from a genome-wide tagging screen in *Trypanosoma brucei*
Mohammad Shahaan Shafiq (Oxford Brookes University, Oxford, USA)

PV 010 - In Vitro activity and mode of action of new endoperoxides against Leishmania
Sofia Júdice Da Costa Cortes (Ghtm-Ihmt-Unl, Lisboa, Portugal)

TB 001 - Non-invasive monitoring of drug action: Exploring a new assay design for Chagas' Disease in vitro drug discovery
Anna Frieda Fesser (Swiss Tropical And Public Health Institute & University of Basel, Basel, Swiss)

11h00 - 11h30 - BREAK**Gymnasium****11h30 - 12h00 - CO.06 - Conference****Room A Glória****Chair: Edmundo Grisard**

Why is understanding the diversity and phylogeny of parasites that cause leishmaniasis important and not just an academic exercise?

Jeffrey Jon Shaw (USP, Sao Paulo, SP, Brazil)

12h00 - 12h30 - CO.07 - Conference**Room A Glória****Chair: Andrea Ávila**

Trypanosomes can initiate mRNA export co-transcriptionally
Susanne Kramer (Wuerzburg University, Würzburg, Germany)

12h00 - 12h30 - CO.08 - Conference**Room B Caxambu****Chair: Renato Augusto DaMatta**

Immune mechanisms driving anemia in *Plasmodium vivax* infections: understanding the destruction of non-infected erythrocytes

Érika Martins Braga (UFMG, Belo Horizonte, MG, Brasil)

12h30 - 14h30 - LUNCH**14h30 - 16h30 - RT.03 – Round Table****LEISHMANIA SPP AND TRYPANOSOMA CRUZI: SOME ASPECTS OF THE HOST-PARASITE RELATIONSHIP****Room A Glória****Chair: Patricia Xander**

RT.03.1 - ROS and *Trypanosoma cruzi*: Fuel to infection, poison to the heart
Claudia Neto Paiva (UFRJ, Rio de Janeiro, RJ, Brazil)

RT.03.2 - Inflammatory pathways in the vector-Leishmania-host interplay: The role of heme-oxygenase

Valeria de Matos Borges (FIOCRUZ, Salvador, BA, Brazil)



RT.03.3 - Leishmania parasites take advantage of front line innate immunity to establish a long-lasting infection in mammals

Gabriela Santos-Gomes (*IHMT- Universidade Nova Lisboa, Lisboa, Portugal*)

RT.03.4 - Extracellular vesicles released by *Leishmania amazonensis* and by B-1 cells: impact on immunity and cutaneous leishmaniasis progression

Patricia Xander Batista (*UNIFESP, Sao Paulo, SP, Brazil*)

14h30 - 16h30 - RT.04 – Round Table

CELL BIOLOGY OF TRYPANOSOMES

Room B

Caxambu

Chair: Renato Mortara

RT.04.1 - Nucleocytoplasmic transport: searching for vulnerabilities in trypanosomes

Andrea Rodrigues Ávila (*Instituto Carlos Chagas, Fiocruz, Curitiba, Brazil*)

RT.04.2 - New inhibitors of metabolite transporters exhibit anti-*Trypanosoma cruzi* activity

Claudio Pereira (*Universidad de Buenos Aires, Buenos Aires, Argentina*)

RT.04.3 - *Trypanosoma cruzi* amastigotes: you live better if you know when to close your mouth!

Narcisa Cunha-e-Silva (*UFRJ, Rio de Janeiro, RJ, Brazil*)

RT.04.4 - How *Trypanosoma cruzi* trypomastigotes escape from infected cells

Renato Arruda Mortara (*UNIFESP, Sao Paulo, SP, Brazil*)

16h30 - 17h00 – BREAK

Gymnasium

17h00 - 17h30 - CO.09 – Conference

Room A

Glória

Chair: Adriano Andricopulo

Screening for antiparasitic leads from a library of natural products from temperate zone plants

Paul Horrocks (*Keele University, Bedford, UK*)

17h00 - 17h30 - CO.10 – Conference

Room B

Caxambu

Chair: Ariel M. Silber

Bromodomains: new target for searching trypanocidal drugs

Esteban Serra (*Instituto de Biología Molecular y Celular de Rosario, Argentina*)

17h30 - 18h30 - CC – Closure Conference

Room A

Glória

Chair: Angela Hampshire Lopes

Leishmania and sand fly: unravelling a complex relationship

Yara Maria Traub-Csekö (*Instituto Oswaldo Cruz, Fiocruz, Rio de Janeiro, RJ, Brazil*)



NOVEMBER 6th, 2019

19h30 - 21h00 – Signature of Receipts to SBPz Members

Gymnasium

21h30 - 22h30 - CLOSING SESSION
Zigman Brener and Walter Colli Awards and Closing Remarks

Room A

Glória