

Sociedade Brasileira de Imunologia



SBIm 50
ANOS



PROGRAM

Immuno2023

XLVII CONGRESS OF THE BRAZILIAN SOCIETY OF IMMUNOLOGY

OURO PRETO - MINAS GERAIS | OCTOBER 02-06





XLVI CONGRESS OF BRAZILIAN SOCIETY OF IMMUNOLOGY

PROGRAM

Immuno
2023



#Immuno2023



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1st OCTOBER

Pre Course in Advanced Immunology

ROOM – Ouro Preto Theater

09:00 - 12:00 Pre-Course 1: Flow cytometry

- Flow cytometry with imaging

Andrea Teixeira (Fiocruz-MG)

- Multiparametric analysis in flow cytometry

Kenneth Gollob (Hospital Israelita Albert Einstein)

- Applications of flow cytometry for diagnostics

Olindo Assis Martins-Filho (Fiocruz-MG)

12:00- 14:00 Lunch

14:00 - 17:00 Pre-Course 2: Transcriptome and imaging

- How to plan a fluorescence experiment: in vivo or ex vivo!

Gustavo Menezes (UFMG)

- Data Storytelling for Immunology

Helder Nakaya (Hospital Israelita Albert Einstein)

2nd OCTOBER

08:50 - 14:30 Satellite Meeting – Fio Mucosa

ROOM – Ouro Preto Theater

08:50: Opening

09:00: The role of Translational Network of FIOCRUZ (Me. Ana Paula Cavalcanti)

09:15: Challenges for Fio-Mucosa translational network (Dr. Herbert Guedes)

09:30: Round-table for “mucosal studies” with Dr. Ana Caetano, Dr. Alda Cruz, Dr. Maria de Lourdes and Dr. Rodrigo Correa

10:40: Coffee break

11:00: Conference 1- Dr. Bernardo Reis (Rockefeller University) “Revealing Diverse Functions of $\gamma\delta$ T Cells in Colon Cancer Pathogenesis”

Chair: Thais Moreira (Harvard University)

12:00 Questions/discussion

12:20: Lunch



14:00: Conference 2 - Dr. Angélica Viera (UFMG) “ The interface between diet, gut microbiota and infections diseases “

14:40: Questions/discussion

14:50: Conference 3 - Dr. Robson Coutinho (UFRJ) “Purinergic signaling in context of mucosal inflammation”

15:30: Questions/discussion

16:00: Closing

14:00 - 17:00 Course to Ouro Preto Community

ROOM - Auditorium São João Del Rey

Promovendo a saúde: A importância da Vacinação na Comunidade

14:00 - 14:45 - Introdução, História da Vacinação

14:45 - 15:40 - Impactos e Importância da Vacinação

15:40 - 16:00 - Coffee-break

16:00 - 17:00 - Abordagens para maior adesão à vacinação e combate à desinformação

16:30 - 17:00 - Encerramento com atividade Interativa

18:30 - 19:00 Opening Cerimony and Lifetime Achievement Award

ROOM – Ouro Preto Theater

19:00 - 20:30 Opening Conference

ROOM – Ouro Preto Theater

Breadth of IgG Fc-mediated effector function delineates grades of clinical immunity against *P. falciparum* malaria

Faith Osier (Imperial College London, UK)

Chair: Ana Maria Caetano Faria (UFMG, MG, Brazil)

21:00 - 00:00 Opening Cocktail

ROOM – Mariana

3rd OCTOBER

08:00 - 09:00 BD Biosciences Course

ROOM – São João Del Rey

- Spectral and convencional flow cytometry: Discover the main differences and the flexibility to choose between them in a single equipment

Nayane Galdino



08:00 – 09:00 Beckman Course

ROOM – Tiradentes II

- Concept & Recent Scientific Impact of Exosomes and Extracellular Vesicles (EVs)

Anis Larbi

- Biofluids as a source of EVs and non-EVs components. Why do we want to stain EVs? Can we explore different Side Scatters?

Alfonso Blanco

09:00 – 10:00 Distinguished Lecture 1

ROOM – Ouro Preto Theater

Chairperson: Dario Zamboni (USP-RP)

Nuclear arms races in host-pathogen interactions

Russell Vance (University of California, USA)

10:00 – 10:20 Coffee Break

10:20 – 12:20 Symposium 1: Immune response to Trypanosomatid infections

ROOM – Ouro Preto Theater

Chairperson: Juliana Assis Gomes (UFMG, MG, Brazil)

- Exploring New Immunosweet Horizons: *Trypanosoma cruzi* Neoglycoconjugates as Vaccines and Biomarkers for Chagas Disease

Igor Almeida (University of Texas at El Paso, USA)

- Spying out T cell specificity in patients with chronic Chagas disease: towards novel *T. cruzi* vaccine candidates

Karina Gomez (CONICET, Argentina)

- Serological and Molecular Assessment of potential *Trypanosoma cruzi* infections in hospitalized parturient women on the U.S-Mexico Border

Rosa Maldonado (University of Texas at El Paso, USA)



Short Talks

ROOM – Ouro Preto Theater

- DO05 - Correlation Between Circulating Immune Molecules And Their Cardiac Gene Expression In Chronic Chagas Cardiomyopathy

Thaiany Goulart de Souza e Silva

- DO06 - SUCNR1-mediated response in CD11c+ macrophages is essential for the statement of resistance to cutaneous leishmaniasis

Stella Francy Vicente de Assunção

10:20 – 12:20 Symposium 2: Infectious diseases I

ROOM – Auditorium São João Del Rey

Chairperson: Chair: Maria Bellio (UFRJ, RJ, Brazil)

- Oxygen matters in neutrophil survival and antimicrobial functions
Benoit Marteyn (University of Strasbourg, Inserm-France)

- Type I interferon exhaustion
Elina Zuniga (UCSD- USA)

- CRUZIVAX Project. R&D+i of a prophylactic and therapeutic vaccine based on a chimeric protein and the latest generation adjuvant cyclic-di-AMP

Emilio Luis Malchiodi (Universidad de Buenos Aires, Argentina)

10:20 – 12:20 Symposium 3: Neuroimmunology

ROOM – Tiradentes I

Chairperson: Alexandre Basso (UNIFESP, SP, Brazil)

- Role of sleep disorders in immune outcomes
Daniela S. Rosa (UNIFESP, Brazil)

- Neuro-immune interactions in the gut
Daniel Mucida (Rockefeller Univ, USA)

- Immunoregulation In Sepsis: Role Of The Sympathetic Splanchnic Nerves

Alexandre A. Steiner (ICB – USP, Brazil)

- Emotional and social aspects of inflammation: molecular studies in mice

David Engblom (Linköping University, Sweden)



12:20 – 15:00 Lunch

14:00 – 15:00 BD Symposium

ROOM – São João Del Rey

- Innovative applications in image-based and high dimensional spectral flow cytometry

Robert Balderas (VP Biological Science)

14:00 – 15:00 Art & Science

ROOM – Auditorium Teatro

- Art and Immunology: A long-life loving relationship

Marta de Menezes

15:00 – 17:00 Workshop 1: Antiviral Immunity

ROOM – Ouro Preto Theater

Chairperson: Juliano Bordignon (Fiocruz-Curitiba, Brazil)

- Changes in neutrophil and dendritic cell function during infection with Dengue and Zika virus

Pryscilla Wok (Fiocruz-Curitiba, Brazil)

- Usutu virus pathogenesis in mice: from neurological disease to pregnancy

Rafael Elias (CNPEM, SP, Brazil)

- Flavivirus overcome translational stress to enhance replication

Daniel Mansur (UFSC, Brazil)

- Immunity to Emerging Viruses: SARS-CoV-2 and MPOX

Carolina Lucas (Yale University, USA)

15:00 – 17:00 Workshop 2: Infectious Disease II

ROOM – Auditorium São João Del Rey

Chairperson: Ken Gollob (IAE-SP, Brazil)

- $\gamma\delta$ T cell dichotomy on murine cutaneous leishmaniasis

Herbert Guedes (FIOCRUZ-RJ, Brazil)



- Chimeric Polyepitop Vaccine Administered By Microneedles Induced Central, Effector And Resident Memory And Protected Against Visceral Leishmaniasis

Alexandre Reis (UFOP, MG, Brazil)

- Interleukin 4-induced gene 1 (IL-4i1) in cutaneous leishmaniasis

Ramona Hurdal (Cape Town University, South Africa)

- Pathogenesis and prognosis markers of post-acute syndrome in Chikungunya

Viviane Boaventura (FIOCRUZ-BA, Brazil)

15:00 – 17:00 Workshop 3: Inflammation and Tissue Repair

ROOM – Tiradentes I

Chairperson: Larissa Cunha (FMRP-USP, SP, Brazil)

- Handling the corpse: how metabolism shapes dendritic cell activation during efferocytosis of MRSA-infected

Alexandra I. Medeiros (UNESP, Brazil)

- Mechanisms of necrotic cell debris clearance from injury sites

Pedro E. Marques (Universiteit Leuven, Belgium)

- Effector responses to cell death: principles of resolving and non-resolving injuries

Sourav Ghosh (Yale University, USA)

- Remodeling of tissue-resident macrophage upon metabolic dysfunction requires BLIMP-1/Prdm1

Gislaine Martins (Cedars-Sinai Medical Center, USA)

15:00 – 17:00 Workshop 4: Immunological Axis

ROOM – Tiradentes II

Chairperson: Gustavo Menezes (UFMG, MG, Brazil)

- The MerTk receptor is important in regulating lung immune cell populations following acute exposure to cigarette smoke and for determining the outcome of pneumococcal infection

Alessandra Filardy (UFRJ, Brazil)

- Defining the role and potential for therapeutic targeting of microbiomes in respiratory disease

Philip M. Hansbro (University of Technology Sydney, Australia)

- Key roles of gamma-delta T cells in regulating the gut-brain axis in health and disease

Rafael Rezende (Harvard University, USA)



Short Talks

ROOM – Tiradentes II

- 1427 DO07 - Th17 axis activation in the immune response against *Cryptococcus gattii* and the influence of IL-22 and IL-23 cytokines in the systemic experimental infection

Israel Diniz Lima

- 1910 PD02 - Comparing the impact of different diets in the gut-lung axis by evaluating changes in the microbiota and macrophages's function

Izabela Galvão

17:00 – 17:20 Coffee Break

17:20 – 18:00 Bright Sparks in Immunology 1

ROOM – Ouro Preto Theater

Chairperson: Carlos Rodrigo Zarate Blades (UFSC, SC, Brazil)

- 1303 IC01 - Inflammatory monocyte recruitment and profiling in experimental models susceptible and resistant to cerebral malaria

Mônica Lucas Ribeiro de Almeida

- 1503 PD03 - A potential metabolic and immunoregulatory role of antigen B lipoprotein in *Echinococcus granulosus* biology: similarities and differences with plasma HDL

Maite Folle

- 1953 IC02 - Implications of eosinophil deficiency in severe experimental malaria: increased susceptibility associated to uncontrolled parasitemia and imbalanced cytokine profile

Luiza Pinheiro Silva

- 1440 IC08 - Immunological Tour: A Play About Immunity Against Viruses

Artur Vitor Cavalcante Menezes

- 1867 DO13- Putative role of non-canonical autophagy machinery in the control of HiF-1 α function

Douglas dos Santos

- IC17 - 1320 - Application of the Chagas-Flow ATE IgG1 serology for post-therapeutic monitoring and genotype-specific diagnosis of Chagas disease

Carolina Malheiros Araújo Silvestrini



17:20 – 18:00 Bright Sparks in Immunology 2

ROOM - Auditorium São João Del Rey

Chairperson: Heitor Affonso De Paula Neto (UFRJ, RJ, Brazil)

- 1470 DO08 - The antigen effect over immune response modulation by IFN- γ -stimulated-FRCs derived from human lymph nodes

Bianca de Oliveira Ferreira

- 1475 DO09 - Ultra-Fast Protocol For Car-T Cell Generation

Luiza de Macedo Abdo

- 1795 DO10 - Single-cell atlas reveals immunophenotypes associated with clinical outcome and enrichment of CD8 memory cells in adjacent normal tissue of pancreatic cancer

Gabriel Francisco Pozo de Mattos Pereira

- 1653 ME01- Functional Characterization Of Anti-Cd19 Humanized Cars

Clara de Oliveira Andrade

17:20 – 18:00 Bright Sparks in Immunology 3

ROOM – Tiradentes I

Chairperson: Leonardo Travassos Corrêa (UFRJ, RJ, Brazil)

- 1379 DO11 - Role Of Ikaros-Hdac Complex In Regulating Micro-Rna And Apoptosis Pathway In Murine B-1 Cells

Lucas Vasconcelos Soares Costa

- 1246 ME02 - Genetic screening of autoinflammatory genes in Latin American pediatric patients with Multisystem Inflammatory Syndrome in Children (MIS-C) associated with SARS-CoV-2 infection

Raquel Bispo de São Pedro

- 1557 PD04 - Role Of Death-Associated Protein 6 In Chromatin Remodeling Mechanisms In Intestinal Cells

Nathalia Vitoria Pereira Araujo Hall

- 1633 ME03 - Molecular Characterization of Antibodies against the Spike Protein in Hyperimmunized Horses

Yala Sampaio



17:20 – 18:00 Bright Sparks in Immunology 4

ROOM – Tiradentes II

Chairperson: Letícia Carneiro (UFRJ, RJ, Brazil)

- 1755 PD06 - Differential immunomodulatory effects of iron in regulatory t (Treg) and Th17 cells

Eduardo Pereira Duarte da Silva

- 1610 DO12 - Pak-2 is involved in the activation of several inflammasomes

Amanda de Matos Becerra

- 1567 IC03 - Influence Of Cd4 T Lymphocytes During The Development And Maturation Of The Central Nervous System

Letícia Barros de Souza

- 1229 PD05 - Macrophages-Myoblasts Interplay: Roles Of Gdf11 Signaling In Myogenesis In Culture

Rafaella Ferreira Reis

18:00 – 18:50 Distinguished Lecture 2

ROOM – Ouro Preto Theater

Chairperson: Lis Antonelli (FIOCRUZ, MG, Brazil)

Type 2 circuitries maintaining tissue resident macrophages as a replicative niche for Leishmania

David L. Sacks (National Institutes of Health)

19:00 – 21:00 Poster Section

DO-01 to DO-95

ME-01 to ME-141



4th OCTOBER

08:00 – 09:00 **BD Biosciences Course**

ROOM – Auditorium São João Del Rey

- Panel Design: Improving experiments in Classical and Spectral Flow Cytometry

Iris Castro

08:00 – 09:00 **Beckman Course**

ROOM - Tiradentes II

- CytoFLEX as the choice for NanoFlow. What is the difference compared to traditional flow cytometers?

Anis Larbi

- EVs Isolation Methods & How to prepare EVs for NanoFlow

Alfonso Blanco

09:00 – 10:00 **Distinguished Lecture 3**

ROOM – Ouro Preto Theater

Chairperson: Angélica Thomaz (UFMG, MG, Brazil)

Microbiome, Metabolites and Modulation of Immune Function

Kate McCoy (University of Calgary, Canada)

10:00 – 10:20 **Coffee Break**

10:20 – 12:20 **Symposium 4: T cells and NK cells**

ROOM – Ouro Preto Theater

Chairperson: Simone Fonseca (UFG, GO, Brazil)

- Cytotoxic CD4 T cell, a new player in Chagas Disease

Maria Bellio (UFRJ, Brazil)

- Role of CD73 and adenosine in the differentiation of exhausted and precursor exhausted CD8+ T cells

Daniela Mahaluf (Universidad do Chile, Chile)

- Posttranslational protein modifications: the link between metabolism and immune function

Luciana Berod (Johannes Gutenberg University Mainz, Germany)



Short Talks

ROOM – Ouro Preto Theater

- 1550 PD07 - The role of mitochondrial inheritance in the early rise of asymmetric T cell fates

Mariana Borsa

- 1671 DO14 - Impact Of Sting Signaling Pathway On The Differentiation And Function Of Regulatory T Cells

Caroline Vitória de Oliveira

10:20 – 12:20 Symposium 5: Mucosal Immunology

ROOM - Auditorium São João Del Rey

Chairperson: Marcelo Bozza (UFRJ, RJ, Brazil)

- Immune crosstalk through shared lymph node drainage in the digestive system

Daria Esterhazy (University of Chicago, USA)

- A poison for the cure: Could type 2 immunity prevent allergic diseases?

Denise Fonseca (USP, Brazil)

- Sensing of the intestinal state by gd T cells

Bernardo Reis (Rockefeller University, USA)

Short Talks

ROOM - Auditorium São João Del Rey

- 1443 DO15 - Impact Of Intestinal Inflammation On The Kidneys Of Mice Submitted To An Experimental Model Of Chronic Colitis

José Arimatéa de Oliveira Nery-Neto

- 1762 PD08 - SARS-CoV-2 infection promotes cellular and humoral responses in the human airways

Mariana De Oliveira Diniz



10:20 – 12:20 Symposium 6: Tumor Immunology

ROOM – Tiradentes I

Chairperson: Cristina Bonorino (UFCSPA, RS, Brazil)

- Costimulation and cell interactions modulate PD-1+ CD8 T cells

Alice Kamphorst (Mount Sinai School of Medicine, USA)

- Endocrine Therapy Primes Antitumor Immunity Opening the Door to Immune Checkpoint Blockade in Breast Cancer Luminal Tumors

Mariana Salatino (CONICET, Argentina)

- The malignant roles of tumor-expressed CD43 (Sialophorin)

Yvonne Rosenstein (Universidad Autónoma de México, México)

Short Talks

ROOM – Tiradentes I

- 1609 PD09 - Immune mechanisms involved in the activation of BCG-induced systemic antitumor response

Nina Mari Gual Pimenta de Queiroz

- 1803 DO16 - Intratumoral delivery of mRNA-TRAIL via Ionizable Lipid Nanoparticles reduces Colon Cancer and Drive Robust Immune Response

Walison Nunes Da Silva

12:20 – 15:00 Lunch

12:30 – 13:30 Tissue Gnostics – Symposium

ROOM – Tiradentes I

AI-Powered Tissue Image Cytometry - Applications in Immunology Research

Rupert ECKER - CEO TissueGnostics & Adj. Prof. QUT (Australia)



13:00 – 15:00 Thereza Kipnis Award

ROOM - Auditorium São João Del Rey

Chairperson: Cláudia Brodskyn (Fiocruz-Bahia, Brazil)

- DO01 - The Sympathetic Nervous System Modulates The Metabolic Reprogramming Of Macrophages

Beatriz Marton Freire

- PD01 - Recombinant BCG expressing SARS-CoV-2 chimeric protein protects k18-hACE2 mice against viral challenge

Fábio Mambelli Silva

- DO02 - Ketogenic Diet Modifies The Microbiota Promoting Long-Term Immune Consequences In The Lungs

Marina Caçador Ayupe

- DO03 - Hyperglycemia impairs glycolysis activation in efferocytic CD11c+ cells during MRSA skin infection

Letícia de Aquino Penteado

- DO04 - Persisting Thromboinflammation in COVID-19 survivors

Remy Martins Goncalves

14:00 – 15:00: Illumina - Symposium

ROOM - Auditorium São João Del Rey

Single Cell Applications and the Growth of Multiomics in NGS.

Nelson Junior



15:00 – 17:00 Workshop 5: INCT Investigação em Imunologia: COVID-19 – Immunology and Inflammation

ROOM – Ouro Preto Theater

Chairperson: Edecio Cunha (USP, SP, Brazil)

- Unraveling Inflammatory Mechanisms of Severe COVID-19 in Individuals with Diabetes and Prediabetes

Natália Tavares (Fiocruz-BA, Brazil)

- Profile of SARS-CoV-2 T and B cell epitope responses in convalescents and vaccinated individuals

Keity Santos (INCOR-USP, Brazil)

- Development of a nasal spray vaccine against SARS-CoV-2

Jorge Kalil (INCOR-USP, Brazil)

Short Talks

ROOM – Ouro Preto Theater

- 1720 DO18 - Nasal administration of anti-CD3 mAb (Foralumab) downregulates NKG7 and increases TGFB1 and GIMAP7 expression in T cells in subjects with COVID-19

Toby Lanser

- 1787 PD11 - SREBP induced lipid droplet biogenesis and inflammasome activation during SARS-CoV-2 infection

Vinicius Cardoso Soares

15:00 – 17:00 Workshop 6: INCT - Vacinas

ROOM - Auditorium São João Del Rey

Chairperson: Ricardo Gazzinelli (UFMG/FIOCRUZ-MG, Brazil))

- The Butantan Dengue vaccine phase 3 trial

Maurício Nogueira (FAMERP-SP, Brazil)

- CRISPR-attenuated parasites and RNA vaccines as novel strategies for parasitic diseases

Santuza Teixeira (UFMG, Brazil)

- Clinical development of SpiN-Tec: a T cell-based Covid-19 vaccine

Helton Santiago (UFMG, Brazil)

- Hiltonol as a vaccine adjuvant and stand alone therapy for cancer and infectious diseases

Andrew J G Simpson (Director, Orygen Biotecnologia)



**15:00 – 17:00 Workshop 7: INCT in dengue and host parasite-
interactions – Mediators of resolution of inflammation**

ROOM – Tiradentes I

Chairperson: Mauro Teixeira (UFMG, Brazil)

- Treating the host in arboviral infections: Pro-resolving molecules as a novel therapeutic paradigm

Vivian Costa (UFMG, Brazil)

- Annexin A1/SOCS2 axis is crucial during *Trypanosoma cruzi* infection promoting modulation of inflammation and microbiota composition

Fabiana Machado (UFMG, Brazil)

- Investigating mechanisms for resolving joint Inflammation and reducing bacterial burden in septic arthritis

Flavio Amaral (UFMG, Brazil)

- Resolution of inflammation and pain.

Waldiceu Verri Jr (UEL, PR, Brazil)

15:00 – 17:00 Workshop 8: INCT- Doenças Tropicais

ROOM – Tiradentes II

Chairperson: Edgar Carvalho (UFBA/FIOCRUZ-BA, Brazil),

- IL-10 produced by B cells enhances *Leishmania braziliensis* replication and contributes to the pathology of Cutaneous Leishmaniasis

Augusto Carvalho (FIOCRUZ-BA, Brazil)

- Cutaneous leishmaniasis: the control of lesions development

João S. da Silva (FIOCRUZ-FMRP, Brazil)

- MMP-2 and MMP-9 and their contribution as possible caspase-1-independent pathway for IL-1 β activation in *Trypanosoma cruzi* immunity

Juliana Assis Estanislau (UFMG, Brazil)

Short Talks

ROOM – Tiradentes II

- 1693 DO17 - Sand fly yellow salivary proteins modulate neutrophil and macrophage responses to *Leishmania* parasites

Jullyanna Oliveira da Silva

- 1354 PD10 - Microbial translocation and its association with high neutrophil count and severity in Yellow Fever Virus infection

Mateus Vailant Thomazella



17:00 – 17:20 Coffee Break

17:20 – 18:00 Bright Sparks in Immunology 5

ROOM – Ouro Preto Theater

Chairperson: Pryscilla Fanini Wowk (ICC/Fiocruz, PR, Brazil)

- 1382 IC04 - Corynebacterium Diphtheriae Extracellular Vesicles Characterization And Its Effects On Mouse Macrophages

Luiza Souza

- 1578 PD12 - Asymptomatic malaria is associated with an IFN- γ -induced program on adaptive immunity

Gregório Guilherme Almeida

- 1407 DO19 - HIF-1 α interaction with HIF-1A antisense long non-coding RNA shift response in macrophages during Leishmania infantum infection

Jonathan Miguel Zanatta

17:20 – 18:00 Bright Sparks in Immunology 6

ROOM - Auditorium São João Del Rey

Chairperson: Alexandra I. Medeiros (UNESP, Brazil)

- 1448 IC05 - Omega-3 decreases TNF- α and NO production, alters the glucose usage by macrophages, and leads to better clearance of Pseudomonas aeruginosa.

Ana Clara Moreira

- 1546 ME05 - Role of inflammasomes in the immune response to Legionella longbeachae

Rhanoica Oliveira Guerra

- 1374 DO36- Ubiquitin Ligase Smurf1 Regulates The Inflammatory Response In Macrophages And Attenuates Systemic Inflammation During Murine Hepatic Coronavirus Infection

Luiz Pedro de Souza Costa

- 1233 ME04 - Neutrophil extracellular vesicles promote proinflammatory effects of on primary human peripheral blood mononuclear cells

Camila Couto do Espírito Santo



17:20 – 18:00 Bright Sparks in Immunology 7

ROOM – Tiradentes I

Chairperson: Gustavo Menezes (UFMG, Brazil)

- 1252 DO20 - Vaccination With Recombinant *Listeria Monocytogenes* Induces An Effective Anti-Tumor Immune Response In Necroptosis- And Pyroptosis-Deficient Mice

Abolaji Samson Olagunju

- 1364 DO21 - Humoral Responses Among Individuals Infected With Wild-Type Yellow Fever Virus And Vaccinated with 17DD Yellow Fever Vaccine

Carolina Argondizo Correia

- 1909 PD13 - Fast and Efficient Monoclonal Antibody Isolation from Human Memory B cells

Luciana Conde Rodrigues Maia

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17:20 – 18:00 Bright Sparks in Immunology 8

ROOM – Tiradentes II

Chairperson: Alexandre Reis (UFOP, MG, Brazil)

- 1654 ME06 - Analysis Of Chimerism Of Regulatory T Cells In Patients Recipients Of Kidney And Liver Transplants

Tamires Moreira Gomes

- 1415 DO23 - Cannabinoid Receptor Type 2 Agonist Gp1a Attenuates Macrophage Activation Induced By M. Bovis-Bcg By Inhibiting Nfkb Signaling

Jessica Do Prado Valeriano

- 1980 DO25 - Temporal dynamics of murine brain lymphocytes distribution during life

Danillo Pereira Dantas

- 1500 DO24 - Therapeutic effect of roflumilast, a selective PDE4 inhibitor, in a murine model of coronavirus infection

Vinícius Amorim Beltrami



18:00 – 18:50 Distinguished Lecture 4

ROOM – Ouro Preto Theater

Chairperson: Patricia Bozza (FIOCRUZ, RJ, Brazil)

Exploring how inflammasomes shape the macrophages' and astrocytes' ability to fight infections

Karina Bortolucci (UNIFESP, Brazil)

19:00 – 21:00 Poster Section

DO-96 to DO-191 and DO-260

PD-01 to PD-103

PR-01 to PR-34

IC-39

5th OCTOBER

08:00 – 09:00 Beckman Course

ROOM – Ouro Preto Theater

- Rigor and Excellence to do NanoFlow: challenges we must overcome

Raquel Ferraz Nogueira

- Exosomes and extracellular vesicles analysis and Conclusion

Alfonso Blanco

09:00 – 10:00 Distinguished Lecture 5

ROOM – Ouro Preto Theater

Chairperson: Silvia Boscardin (USP, SP, Brazil)

Antibody responses to infection and vaccines

Michel Nussenzweig (Rockefeller University, USA)

10:00 – 10:20 Coffee Break



10:20 – 12:20 Symposium 7: Immunology of Nutrition

ROOM – Ouro Preto Theater

Chairperson: Andrea Teixeira Carvalho (FIOCRUZ-MG)

- Loss of tolerance in a protein-free diet is associated with DC impairment and microbiome dysbiosis

Thaís Moreira (Harvard University, USA)

- Obesity as a susceptibility factor to *Leishmania major* infection

Tatiani Maioli (UFMG, Brazil)

- The role of fatty acids in skin immune responses

Hosana Gomes Rodrigues (UNICAMP, Brazil)

Short Talks

ROOM – Ouro Preto Theater

- 1244 DO26 - Undernutrition Alters Expression Of Splenic Extracellular Matrix Components And Modifies Splenocytes Location In Mice Infected With *Leishmania Infantum*

Renata Azevedo do Nascimento

- 1899 DO27 - Reconstruction Of Pasteurized Donor's Milk Microbiota As An Immune Interventional Strategy For Premature Newborns: Molecular Benefits Revealed By A Multiomic Approach Of A Clinical Trial

Lucas Soveral

10:20 – 12:20 Symposium 8: Innate immunity

ROOM - Auditorium São João Del Rey

Chairperson: Sérgio Costa (USP, SP < Brazil)

- cGAS-like receptor-mediated immunity in *Drosophila* flies

Jean-Luc Imler (University of Strasbourg, France)

- A signaling hub controlling plant immunity and growth

Elizabeth Fontes (UFV, MG, Brazil)

- Antiviral resistance in vector mosquitoes

João Marques (UFMG, Brazil)

Short Talks

ROOM – Ouro Preto Theater

- 1296 DO28 - Targeting adrenergic receptors to mitigate iNKT-induced acute liver injury

Michelangelo Bauwelz Gonzatti



10:20 – 12:20 Symposium 9: Immunosenescence

ROOM – Tiradentes I

Chairperson: Olindo M. Filho (FIOCRUZ-MG, Brazil)

- Strategies to Enhance Immunity During Ageing
Arne Akbar (University of London, UK)
- Fingerprinting of senescent T cells in the immunopathology of American Tegumentary Leishmaniasis
Daniel Gomes (UFES, Brazil)
- Premature immunosenescence in rheumatoid arthritis – relevance to clinical progression
Moisés Bauer (PUC-RS, Brazil)

Short Talks

ROOM – Tiradentes I

- 1248 DO29 - B-1 Cell Progenitor As A New Candidate To Explain B-1 Cell Accumulation In Aging And Disease
Olivia Fonseca Souza
- 1717 DO30 - Comprehensive characterization of the immune profile in short telomere syndromes
Willian Robert Gomes

12:20 – 15:00 Lunch

12:30 – 13:30 Beckman Symposium

ROOM – Tiradentes II

- Welcome to the Nanosorting World
Alfonso Blanco

13:00 – 15:00 General Assembly SBI

ROOM – Ouro Preto Theater



13:00 – 15:00 BD Award

ROOM – São João del Rey

Categoria Jovem Talento

- Papel do eixo oro-intestinal no agravamento da colite murina
André Luiz Amorim da Costa (IMPG/UFRJ)
- Efeito da suplementação com probiótico selenizado em modelo experimental de colite ulcerativa agravada por infecção
Gabriele Manamy Baba Rodrigues (ICB IV - USP)
- Caracterização da Senescência e Exaustão Celular em Crianças Vivendo com HIV em Regime de Terapia Antirretroviral
Mônica Pereira Coelho (FMUSP)

Categoria Pesquisador SBI

- Avaliação e Caracterização de Resposta Celular no Contexto de Infecções e Vacinas
Cássia G. Terrassani Silveira (FMUSP)
- Impacto da citometria de fluxo multiparamétrica no diagnóstico precoce e análise de resposta imune intratumoral no câncer pediátrico
Cristiane de Sá Ferreira Facio (IPPMG/UFRJ)
- Identificação das microvesículas relacionadas a exaustão celular em pacientes com hanseníase.
Katherine Kelda Gomes de Castro (IOC/FIOCRUZ)

15:00 – 17:00 Workshop 9: Inflammatory diseases

ROOM – Ouro Preto Theater

Chairperson: Tatiani Maioli (UFMG, MG, Brazil)

- A Novel Role for A20-Regulated CNS Endothelial ICOSL in Immune Cell Adhesion and Autoimmune Neuroinflammation
Ari Waisman (University of Mainz, Germany)
- Microbial recognition by intestinal T lymphocytes
Angelina Bilate (Rockefeller University, USA)
- Interferon epsilon: an estrogen-dependent type I interferon that is uniquely exploited by *Neisseria gonorrhoeae*
Douglas Golenbock (University of Massachusetts, USA)



Short Talks

ROOM – Ouro Preto Theater

- 1728 DO31- Plasmodium berghei NK65 malaria induces neuroinflammation and promotes cognitive deficits in mice
Flaviane Vieira Santos

15:00 – 17:00 Workshop 10: Biology of B Cells

Auditorium São João Del Rey

Chairperson: Camila Indiani Oliveira (FIOCRUZ-BA, Brazil)

- Regulation of antibody production by specialized TFH subsets
Luís Graça (IMM, Portugal)
- Exploring the Unique Molecular Traits of Horse Antibodies and Their Fascinating Contrasts with Humans
Liza Felicori (UFMG, Brazil)

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Short Talks

Auditorium São João Del Rey

- 1295 - Unraveling The Significance Of N-Glycolylneuraminic Acid Evolutionary Loss In B Cell Dynamics And Its Correlation With The Intestinal Microbiota
Philippe Caloba Oliveira de Mattos Cruz
- 1577 - Phenotypic rhythm, integrative networks, and profile of T and B-cell subsets associated with distinct clinical outcomes of severe COVID-19 patients
Gabriela de Oliveira



15:00 – 17:00 Workshop 11: Immunology of allergic diseases

ROOM – Tiradentes I

Chairperson: Momtchilo Russo (USP, SP, Brazil)

- B cell memory of allergic responses

Maria Curotto-Lafaille (Mount-Sinai School of Medicine, USA)

- T cells specific to food proteins and their role in allergic diseases

Daniel Lozano-Ojalvo (Mount-Sinai School of Medicine, USA)

- Is specific immunotherapy useful in atopic dermatitis?

Luisa Karla Arruda (USP-RP, Brazil)

- TING activation induces neutrophilic asthma in response to house dust mite allergen

Dieudonné Togbe (University of Orleans, France)

15:00 – 17:00 Workshop 12: Immunotherapy

ROOM – Tiradentes II

Chairperson: João Viola (INCA, RJ, Brazil)

- Personalized medicine approach toward increasing access to checkpoint inhibitors therapy in melanoma

Ken Gollob (Albert Einstein Hospital, SP, Brazil)

- PI3Kdelta as a target for immunotherapy

Klaus Okkenhaug (University of Cambridge, UK)

- CAR-T initiatives under development in Rio de Janeiro

Martin Bonamino (INCA, RJ, Brazil)

Short Talks

ROOM – Tiradentes II

- 1869 DO35 - Targeting Polycomb Repressive Complex 2 (PRC2) as a strategy to improve the antitumor activity of CAR-T cells

Maria Leticia Rodrigues Carvalho

- 1820 DO34 - Distinct Exhaustion Marker Profiles Reveal Time-Dependent Immune-Related Adverse Events During Immunotherapy

Guilherme Ferreira de Britto Evangelista

17:00 – 17:20 Coffee Break



17:20 – 18:00 Bright Sparks in Immunology 9

ROOM – Ouro Preto Theater

Chairperson: Joana Amaral (UFOP, MG, Brazil)

- 1945 DO39 - CD38 increased activity may account for NAD⁺ metabolism imbalance in the brain of neonate mice during Zika virus infection

Georgia do Nascimento Saraiva

- 1684 DO37 - ATP-P2X7 signaling in the pathophysiology of COVID-19

Nayara Carvalho Barbosa

- 1734 DO38 - Evaluation of the role of butyrate in the migration of plasmacytoid dendritic cells during experimental COVID-19

Jéssica Assis Pereira

- 1939 IC06 - Sex-related immune responses and gastrointestinal (GI) commitment converge to long COVID-19 sequelae in female patients

Jackeline Marino Lucas

17:20 – 18:00 Bright Sparks in Immunology 10

ROOM - Auditorium São João Del Rey

Chairperson: Rafael Elias Marques (CNPq, SP, Brazil)

- 1758 PD14 - Scale-Up Production Of A Low-Cost Anti-Cd19 Car-T Cell For Leukemia Immunotherapy

Sabrina Alves dos Reis

- 1477 ME07 - Evaluation Of The Immunomodulatory Activity Of A Kunitz-Type Protease Inhibitor Present In The Saliva Of The Tick *Amblyomma sculptum*

Gretta Huamanrayme Bustamante

- 1791 DO40 - Intensity Of Toll-Like Receptors Expression Per T Cells Correlated With Clinical Parameters Of Multiple Sclerosis

Marcos Octávio Salvaterra Dutra Cafasso

- 1932 ME08 - The Role Of Sting In The Develop Of Kidney Injury In Lap-Deficient Mice

Daniel Leonardo Alzamora Terrel



17:20 – 18:00 Bright Sparks in Immunology 11

ROOM – Tiradentes I

Chairperson: Daniel S. Mansur (UFSC, SC, Brazil)

- 1281 IC07 - Identification of genes associated with immune infiltration and tumor regression in melanoma

Vinícius Gonçalves de Souza

- 1348 DO41 - The role of DPP-IV inhibition in regulating inflammation during acute colitis and colitis-associated colorectal cancer: combining in silico and experimental approaches

Eloisa Martins da Silva

- 1634 DO43 - Systemic Immunological Profile from Children with B-Cell Acute Lymphoblastic Leukemia in the Brazilian Amazon

Fábio Magalhães-Gama

- 1629 DO42 - BCG immunotherapy depends on TLR2-MyD88 signaling to control melanoma in mice

Vinicius Martins Borges

17:20 – 18:00 Bright Sparks in Immunology 12

ROOM – Tiradentes II

Chairperson: Alessandra Filardy (UFRJ, RJ, Brazil)

- 1974 DO44 - Aryl Hidrocarbon Receptor Immunometabolic Role During A Murine Betacoronavirus Experimental Infection

Fernando Roque Ascensão

- 1632 ME09 - Development of a mRNA vaccine for Dengue virus serotypes 2 and 3

Sarah A. R. Sérgio

- 1771 PD15 - An IgG fusion vaccine strategy increases RBD immunogenicity and protects against SARS-CoV-2

Mariangela de Oliveira Silva



18:00 – 18:50 Distinguished Lecture 6

ROOM – Ouro Preto Theater

Chairperson: Gustavo Amarante-Mendes (USP, SP, Brazil)

Some aspects in the Pathogenesis of Cutaneous Leishmaniasis and
Alternative Therapeutic Approaches for Treatment of the Disease

Claudia Brodskyn (FIOCRUZ-BA, Brazil)

19:00 – 21:00 Poster Section

D0192 to D0281

IC01 to IC130

PR35 to PR51

6th OCTOBER

09:00 – 10:00 Distinguished Lecture 7

ROOM – Ouro Preto Theater

Chairperson: Verônica Coelho (USP, SP, Brazil)

Clonal dynamics of the recall antibody responses

Gabriel Victora (Rockefeller University, USA)

10:00 – 11:00 Closing Conference

ROOM – Ouro Preto Theater

Chairperson: Helder Nakaya (Albert Einstein Hospital, SP, Brazil)

The circadian cycle and immunometabolism in malaria

Ricardo Gazzinelli (UFMG/FIOCRUZ, Brazil)

11:00 – 12:00 Closing Ceremony and Awards

ROOM – Ouro Preto Theater

BD Award

Teresa Kipnis Award

SLB Award



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