



Wednesday, October 16, 2024

13:00-13:30 Registration

Research at ICGEB, ICESP and C2PO

Chair: *Bryan Strauss, ICESP (Brazil)*

13:30-13:45 **Center for Translational Research in Oncology, a research hub within a total cancer care center**

Roger Chammas, ICESP (Brazil)

13:45-14:00 **The role of ICGEB in research, training and technology transfer in biotechnology**

Luiz Zerbini, ICGEB (South Africa)

14:00 - 14:45 **Receptor Tyrosine kinases: therapeutic targets in cancer development**

Luiz Zerbini, ICGEB (South Africa)

HPV/mRNA vaccine

Chair: *Laura Sicheo, ICESP (Brazil)*

14:45 - 15:30 **mRNA Vaccines for the Treatment of HPV-Induced Tumors**

Jamile Ramos Silva, Imunotera (Brazil)

15:30 - 16:00 **Human Papillomavirus E7: Novel targets for therapeutic intervention**

Lawrence Banks, ICGEB (Italy)

16:00 - 16:30 **Coffee break (posters)**

16:30 - 17:15 **Therapeutic cell-based vaccines against tumors induced by HPV: experimental and clinical efficacy evidences**

Luis Carlos Souza Ferreira, ICB-USP (Brazil)

17:15 - 18:00 **Prophylaxis of tumors induced by HPV**

Luisa Villa, ICESP (Brazil)

Thursday, October 17, 2024

CAR T/NK cells for cancer immunotherapy

Chair: Eduardo Magalhães Rego, ICESP (Brazil)

- 8:30 - 9:15 **CAR-T cell initiatives at the Brazilian National Cancer Institute**
Martin Bonamino[#], INCA (Brazil)
- 9:15 - 10:00 **Manufacturing Challenges in CAR-T/NK Therapies: Ribeirao Preto Experience**
Virginia Picanço e Castro[#], FMRP (Brazil)
- 10:00 - 10:45 **Keynote lecture: Genome editing of T lymphocytes for cancer immunotherapy**
Chiara Bonini[#], HSR (Italy)
- 10:45 - 11:15 **Coffee break (posters)**

Bringing novel approaches into the fold

Chair: Bryan Strauss, ICESP (Brazil)

- 11:15 - 12:00 **Regulatory aspects of advanced therapies in Brazil**
Renata Parca[#], ANVISA (Brazil)
- 12:00 - 12:45 **Keynote lecture: Oncolytic viruses for Pediatric Brain Tumors; From the Bench to the Bedside**
Marta Alonso[#], Navarra University Clinic (Spain)
- 12:45 - 13:45 **Lunch (posters)**
- 13:45 - 14:15 **To infinity and beyond: IncuCyte Applications**
Leticia Queiroz da Silva, PhD[#]
Chair: Fernanda Antunes, ICESP (Brazil)
- 14:15 - 15:15 **Oral Abstracts: Session**
Chair: Tharcisio Citrangulo Tortelli Junior, ICESP (Brazil)

Optical and electrochemical diagnosis using an epigenetic biomarker of breast cancer

Marlone Love Tchouptang Njiyip et al (Cameroon/Brazil)

WT1-5 rotavirus infects and induces death of tumor cells in vitro and in vivo

Haceneh Shantall Prieto Rodríguez et al (Colombia)

Development of a platform for gamma-delta T cell expansion and evaluation of cytotoxicity against tumor cells

Mateus da Silva Matias Antunes et al (Brazil)

TCR-depleted anti-GD2 'universal' CAR-T allogeneic product exerts antitumoral activity against glioblastoma cells *in vitro*

Karolina Santos Esteves et al (Brazil)

15:15 – 15:45 **Co-Expression of cJUN Enhances CRISPR Knock-In anti-B7H3 CAR T-cell Function for Small Cell Lung Cancer Treatment**

Hyatt Balke-Want, MaxCyte (Germany)[#]

Chair: Fernanda Antunes, ICESP (Brazil)

15:45 - 16:15 **Coffee break (posters)**

Oncolytic approaches for cancer immunotherapy

Chair: Kirill Afonin, UNCC (USA)

16:15 - 17:00 **Switching the balance between immune tolerance and surveillance to enhance antitumor response**

Marcio C Bajgelman, LNBio (Brazil)

17:00 – 17:45 **The difficult path to the clinic of a tumor stroma-targeted, TME-responsive, oncolytic virus**

Oswaldo Podhajcer[#], Instituto Leloir (Argentina)

17:45 - 18:30 **Oncolysis in response to gene transfer**

Bryan Strauss, ICESP (Brazil)

Friday, October 18, 2024

Non-coding RNA in cancer theranostics

Chair: Luciana Andrade, ICESP (Brazil)

8:30 - 9:15 **Molecular pathway of radioiodine as a theranostic in thyroid cancer**

Edna Teruko Kimura, ICB-USP (Brazil)

9:15 - 10:00 **microRNAs associated with metastasis**

Patricia Pintor dos Reis, UNESP (Brazil)

10:00 - 10:45 **Keynote lecture: Living in the World of RNA Medicine**

Muthiah Manoharan, Alnylam Pharmaceuticals, Cambridge, MA (USA)

10:45 - 11:15 **Coffee break (posters)**

Dynamic platforms for cancer therapy and diagnosis: I

Chair: Renata Saito, ICESP (Brazil)

11:15 - 12:00 **Nanodesign of Nucleic Acids Nanoparticles for Biomedical Applications**

Kirill Afonin, UNCC (USA)

12:00 - 12:45 **Immunological Properties of Nanocarriers and Nanoparticle-formulated Products: Lessons Learned from Two Decades of Preclinical Characterization at the Nanotechnology Characterization Lab**

Marina Dobrovolskaia[#], NIH (USA)

12:45 - 13:45 **Lunch (posters)**

13:45 – 14:00 **Established Protocols for MSI Testing and the Clinical Importance of the MSI-H Biomarker**

Eduardo Leal Rodrigues - Coordinator Scientist Promega.

Chair: Fernanda Antunes, ICESP (Brazil)

14:00- 15:00 **Oral Abstracts: Session II**

Chair: Alexis Murillo Carrasco, ICESP (Brazil)

Cell membrane-functionalized nanoparticles containing imatinib for chronic myeloid leukemia therapy

Flávia Langellotti Silva et al (Brazil)

Enhancing Raman spectroscopy for improved characterization of extracellular vesicles in cancer biology

Marco Lazaro de Sousa Batista et al (Brazil)

Tailoring Amphiphilic Nanocarriers from Low Molecular Weight Chitosan for Effective Gene Therapy

Gabriel José De Carli et al (Brazil)

Down-modulation of MHC-I in tumor cells by bacterial RNA: a possible therapeutic strategy

Agustina Serafino et al (Argentina)

15:00 – 15:30 **Safeguard Commercialization- Manage Raw Materials and Dual Sourcing Expectation**

Mayra Mancía MCTM (MS), MBA[#]

Chair: Fernanda Antunes, ICESP (Brazil)

15:30 - 16:00 **Coffee break (posters)**

Dynamic platforms for cancer therapy and diagnosis: II

Chair: Andreia Otake, ICESP (Brazil)

16:00 – 16:45 **Autonomous Nucleic Acid Nanoparticles Engineered to Operate in Living Cells**

Afonin Kirill, UNCC (USA)

16:45 – 17:30 **Targeting mechanisms of cancer treatment resistance with miRNAs and nanostructures RNAs**

Roger Chammas, ICESP (Brazil)

17:30 – 18:15 **Keynote lecture: NanoComputing Agents: Hacking Cellular Behavior**

Nikolay Dokholyan, Penn State College of Medicine (USA)

Saturday, October 19, 2024

Hitting the target using nanobiosystems

Chair: Roger Chammas, ICESP (Brazil)

- 8:30 – 9:15 **Introduction to and use of extracellular vesicles**
Luciana Andrade, ICESP (Brazil)
- 9:15 - 10:00 **Anticoagulant RNA-DNA biomolecular platform for the management of cancer-associated thrombosis**
Renata de Freitas Saito, ICESP (Brazil)
- 10:00 – 10:30 **Accelerating nucleic acid therapeutics | The growing potential of RNA-LNP therapeutics for cell therapy**
Mariana Oliveira, PhD - Field Application Specialist, Cytiva
Chair: Fernanda Antunes, ICESP (Brazil)
- 10:30 - 11:00 **Coffee break (posters)**
- 11:00 - 11:45 **The Nanomedicine Revolution: Advances in Diagnosis and Therapy**
Valtencir Zucolotto, USP IFSC (Brazil)
- 11:45 - 12:30 **Keynote lecture: Bioengineering extracellular vesicles as therapeutic vehicles**
Xandra Breakefield[#], Harvard/Mass Gen (USA)
- 12:30 - 12:45 **Closing Ceremony and Awards Presentation**
- 12:45 - 14:00 **Closing event reception**
- 14:00 - 18:00 **Laboratory workshops**

***Note: All lecture titles are provisional and will be updated as plans are finalized. TBD, to be determined.**

#Note: This presentation will be made remotely.

Coffee breaks are included with registration. Drinks/snacks will be provided.

Lunches are included with registration. Meals, including vegan and gluten free options, will be provided.