

## Scientific Program

45<sup>th</sup>. Annual Meeting of Brazilian Society for Biochemistry and Molecular Biology  
June 18 to 21, 2016

### Conferences

#### Saturday, June 18<sup>th</sup> - 6 pm

Room: Lavoisier Maia

##### Conference 1 (Opening Lecture)

Chair: José Roberto Meyer Fernandes, Instituto de Bioquímica Médica, Universidade Federal do Rio de Janeiro (IBqM-UFRJ)

**Anibal E. Vercesi**

Faculdade de Ciências Médicas, Universidade Estadual de Campinas (FCM -Unicamp)  
*Forty Years Investigating the Role of Mitochondria in Cell Life and Death in Mammals, Plants, Trypanosomes and Fungi*

#### Sunday, June 19 - 11:00 to 12:00

Room: Lavoisier Maia

##### Conference 2

Chair: Jerson L. da Silva, Instituto de Bioquímica Médica, Universidade Federal do Rio de Janeiro (IBqM-UFRJ)

**Enrico Gratton**

Laboratory of Fluorescence Dynamic, University of California, Irvine, USA  
*What Autofluorescence Can Tell Us About Metabolism and Diseases in Tissues?*

Room: Ponta Negra

##### Conference 3

Chair: Mario Alberto Silva Neto, Instituto de Bioquímica Médica, Universidade Federal do Rio de Janeiro (IBqM-UFRJ)

**Norbert Perrimon**

Harvard Medical School and HHMI, Harvard University  
*Signaling Mechanisms Involved in Gut Regeneration*

#### Monday, June 20 -- 11:00 to 12:00

Room Lavoisier Maia

##### Conference 4

Chair: Hernan Francisco Terenzi, Universidade Federal de Santa Catarina (UFSC)

**Suely Lopes Gomes**

Instituto de Química, Universidade de São Paulo (IQ-USP)  
*Light Perception in the Aquatic Fungus Blastocladiella emersonii Involves a Rhodopsin – Guanylyl Cyclase Fusion Protein*

**Monday, June 20 - 11:00 to 12:00**

Room Ponta Negra

**Conference 5**

Chair: Katia Castanho Scortecci, Universidade Federal do Rio Grande do Norte (UFRN)

**Scott Michaels**

Indiana University – USA

*Large-Scale Heterochromatic Remodeling Facilitates DNA Repair*

**Tuesday, June 21 - 11:00 to 12:00**

Room Lavoisier Maia

**Conference 6**

Chair: Paulo Lee Ho, Instituto Butantan

**Amilcar Tanuri**

Instituto de Biologia, Dep. de Genética, Universidade Federal do Rio de Janeiro (UFRJ)

*Comparing Biological Properties of African and Brazilian ZIKV strains.*

Room Ponta Negra

**Conference 7**

Chair: Aline Maria da Silva, Instituto de Química, Universidade de São Paulo (IQ-USP)

**Nikos Kyrpides**

DOE Joint Genome Institute

*Identifying the micro from the peta: tales of big data in the micro world*

## Symposia

**Sunday, June 19 – 8:30 to 10:30 am**

Room Lavoisier Maia

**SP-01 Multifaceted Mitochondria**

Chair: Alicia J. Kowaltowski, Instituto de Química, Universidade de São Paulo (IQ-USP)

**Ivan de Godoy Maia**, Instituto de Biociências, Universidade Estadual Paulista, (IB-Unesp, Botucatu)

*Mitochondrial Uncoupling Proteins in Plants: Molecular and Functional Aspects*

**Iseli L . Nantes**, Universidade Federal do ABC (UFABC)

*One More Function of Cytochrome C: Fusion of the Inner Mitochondrial Membrane*

**Nadja Souza-Pinto**, Instituto de Química, Universidade de São Paulo (IQ-USP)

*Molecular Mechanisms for Maintaining Mitochondrial DNA Stability in Alzheimer's Disease*

**Alicia J. Kowaltowski**, Instituto de Química, Universidade de São Paulo (IQ-USP)

*Caloric Restriction Increases Brain Mitochondrial Calcium Retention Capacity and Protects against Excitotoxicity*

**Sunday, June 19 – 8:30 to 10:30 am**

Room: Ponta Negra

**SP-02 Systems Biology and Biomarkers for Human Disorders**

Chair: **Daniel Martins-de-Souza**, Depto. Bioquímica, Universidade Estadual de Campinas (UNICAMP)

**Emmanuel Dias-Neto**, AC Camargo Cancer Center

*Genomic biomarkers in human cancer*

**Vitor M. Faça**, Faculdade de Medicina de Ribeirão Preto, Universidade de São

Paulo (FMRP-USP)

*Application of Targeted Proteomics to Track Epithelial to Mesenchymal Transition in Adenocarcinomas*

**Daniel Martins-de-Souza**, Dep. Bioquímica, Universidade Estadual de Campinas (UNICAMP)

*Neuroproteomics to Unravel the Molecular Underpinnings of Psychiatric Disorders*

**Helder I Nakaya**, Faculdade de Ciências Farmacêuticas, Universidade de São

Paulo (FCF-USP)

*System Biological Approaches to Predict and Understand Infectious Diseases*

**José Luiz de Lima Filho**, Laboratório de Imunopatologia Keizo Asami, Universidade Federal de Pernambuco (LIKA-UFPE)

*Biosensors*

**Sunday, June 19 – 8:30 to 10:30 am**

Room Fernando Paiva

**SP-03 Combining Experiments and Modelling to Understand Biomolecules**

Chair: Guilherme Menegon Arantes, Instituto de Química, Universidade de São Paulo (IQ-USP)

**Hongbin Li**, Department of Chemistry, University of British Columbia, Canadá  
*Folding and Unfolding Mechanism of the Metalloprotein Rubredoxin: a Single Molecule Force Spectroscopy Perspective*

**Paulo Augusto Netz**, Universidade Federal do Rio Grande do Sul (UFRGS)  
*Computer Simulation of Nucleic Acids: Across Scales and Across Methods.*

**Guilherme Menegon Arantes**, Instituto de Química, Universidade de São Paulo (IQ-USP)

*Multi-Scale Modelling of the Mechanical Stability of a Simple Iron-Sulfur Protein*

Room Pipa

**SP-04 Symposium Chile-Brazil: Neurochemistry**

Chair: Rafael Linden, Inst.de Biofísica Carlos Chagas Filho, Univ.Fed. do Rio de Janeiro  
(IBCCF-UFRJ)

**Lisette Leyton**, Universidad de Chile

*Cell Adhesion Molecules in Bidirectional Signaling between Neurons and Astrocytes*

**Leonardo Guzman**, Depto de Fisiología, Universidad de Concepcion, Chile

Inhibition of ethanol potentiation of glycine receptor by small molecules. From *in silico* to *in vivo*.

**Carmen Gottfried**, Universidade Federal do Rio Grande do Sul (UFRGS)

*The Impact of Neuroimmune Alterations in the Pathophysiology of Autism Spectrum Disorder*

**Rafael Linden**, Instituto de Biofísica Carlos Chagas Filho, Univ.Federal do Rio de Janeiro

(IBCCF-UFRJ)

*The Biological Function of the Prion Protein in Neurological Health and Disease*

**Sunday, June 19 – 13:30 to 15:30**

Room Lavoisier Maia

**SP-05 Hematophagous Animals: Rich Source of Protease Inhibitors. Structural and Function Relationship**

Chair: Aparecida Sadae Tanaka, Universidade Federal de São Paulo (UNIFESP)

**Pedro José Barbosa Pereira**, Universidade do Porto, Portugal

*Cysteine-less Natural Thrombin Inhibitors: Flexible but Effective*

**Albert Mulenga**, Texas A&M University, USA

*Unraveling Tick Evasion of Host Immunity: Evidence of Antigenic Variation Equivalent Mechanism in Tick Saliva & its Impact on Tick Vaccine Design*

**Lucas Tirloni**, Centro de Biotecnologia, Universidade Federal do Rio Grande do Sul (CBIOT-UFRGS)

*The Cattle Tick Rhipicephalus microplus Saliva: A Source of Serine Proteinase Inhibitors*

**Aparecida Sadae Tanaka**, Universidade Federal de São Paulo (UNIFESP)

*Tick and Kissing bug versus Kunitz and Kazal Type Serine Protease inhibitors.*

**Sunday, June 19 – 13:30 to 15:30**

Room: Ponta Negra

**SP-06 Symposium Gregório Weber**

Chair: Jerson L. da Silva, Instituto de Bioquímica Médica, Univ. Fed. do Rio de Janeiro

(IBqM-UFRJ)

**Enrico Gratton**, University of California, Irvine  
*Fluorescence Correlation Spectroscopy in the Light Sheet Microscope*

**David Jameson**, University of Hawaii  
*A Fluorescent Lifetime: Reminiscing About Gregorio Weber*

**Debora Foguel**, Instituto de Bioquímica Médica, Universidade Federal do Rio de Janeiro (IBqM-UFRJ)  
To be announced

Room Fernando Paiva

**SP-07 Marine Biotechnology**

Chair: Fabiano Thompson, Instituto de Biologia, Universidade Federal do Rio de Janeiro (IB-UFRJ)

**Renato C. Pereira**, Instituto de Biologia, Universidade Federal Fluminense (UFF)  
*Laboratory Production of Marine Natural Products*

**Roberto Berlinck**, Instituto de Química de São Carlos, Universidade de São Paulo (IQSC-USP)  
*New Biosynthetic Routes of Secondary Metabolites from Marine Microorganisms*

**Fabiano Thompson**, Instituto de Biologia, Universidade Federal do Rio de Janeiro (IB-UFRJ)  
*Environmental Genomics and the Functioning of Marine (Reef) Systems*

**Luis Gadelha**, Laboratório Nacional de Computação Científica (LNCC)  
*BAMBA, The Brazilian Marine Diversity Database*

Room Pipa

**SP-08 Symposium Portugal-Brasil: Novel Insights in Neurodegeneration**  
Chair: Vilma Martins, AC Camargo Cancer Center

**Dora Brites**, University of Lisbon  
*Heterogeneity of Astrocytes and Microglia in Neurodegenerative Diseases*

**Luís Almeida**, University of Coimbra  
*From Gene to Therapy of Machado-Joseph Disease*

**Yraima M.L. Cordeiro**, Instituto de Bioquímica Médica, Univ. do Rio de Janeiro (IBqM-UFRJ)  
*In vitro and In silico Approaches to Screen and Select Prototype Compounds for Prion Disease's Therapy*

**Vilma Martins**, AC Camargo Cancer Center

*Prion Protein and the Regulation of Exosome Secretion and Autophagy: The Relevance in Neurodegenerative Diseases.*

**Sunday, June 19 – 13:30 to 15:30**

Pavilion Morton Mariz de Faria – Room 3

**SP-09 SBBq-GE Healthcare: 20<sup>th</sup> Prize for Young Talent for Life Science**

Chair: José Roberto Meyer Fernandes, Instituto de Bioquímica Médica, Universidade Federal do Rio de Janeiro (IBqM-UFRJ)

**Ernesto Martin Cuevasanta Dans**, Instituto de Química Biológica, Universidad de La Republica (IQB-UDELAR), Uruguay

*Reactivity of Hydrogen Sulfide towards Disulfides and Sulfinic Acids*

**Fernanda Maria Policarpo Tonelli**, Universidade Federal de Minas Gerais, UFMG

*Functionalized Nanomaterials to Deliver Genes to Difficult-to-transfect Cells*

**Jorge Estaban Diaz Fuentes**, Universidad de Chile

*Caveolin-1 Promotes Migration, Invasion and In vivo Metastasis Via a Novel Rab5/Tiam1/Rac-1 Signaling Axis*

**Maira Assunção Bicca**, Universidade Federal de Santa Catarina (UFSC)

*The Role of Transient Receptor Potential Ankyrin 1 (TRPA1) as a Target in Alzheimer's Disease*

**Mychael Vinicius da Costa Lourenço**, Instituto de Bioquímica Médica, Universidade Federal do Rio de Janeiro (IBqM-UFRJ)

*Novel Mechanisms of Synaptic Dysfunction and Neuroprotection in Alzheimer's Disease*

**Monday, June 20 - 8:30 to 10:30**

Room Lavoisier Maia

**SP-10 Regulation of Protein Import into the Nucleus**

Chair: Marcos Roberto de Mattos Fontes, Instituto de Biociências, Universidade Estadual de São Paulo (IB-UNESP-Botucatu)

**Bostjan Kobe**, University of Queensland, Austrália

*Structural Biology and Regulation of the Classical Nuclear Import Pathway*

**Marcos Roberto de Mattos Fontes**, Instituto de Biociências, Universidade Estadual de São Paulo (IB-UNESP-Botucatu)

*Nuclear Transport of DNA Repair Proteins*

**Rafael Couñago**, Structural Genomics Consortium, Universidade Estadual de Campinas (UNICAMP)

*Classical Nuclear Import Pathway in Plants - Structural Basis for the Interaction between Rice Importin- $\alpha$  and Plant-Specific Nuclear Localization Sequences*

**Andréa R. Avila**, Instituto Carlos Chagas, Fundação Oswaldo Cruz (ICC-FIOCRUZ)  
*mRNA Export in Mammals and Parasites: They Use the Same Pathways?*

**Monday, June 20 - 8:30 to 10:30**

Room: Ponta Negra

**SP-11 The Regulation of the Energy Metabolism in Plants**

Chair: **Carlos Takeshi Hotta**, Instituto de Química, Universidade de São Paulo (IQ-USP)

**Alex Webb**, University of Cambridge, UK

*Metabolic Regulation of the Circadian Clock of Arabidopsis*

**Camila Caldana**, Lab. Nacional de Ciência e Tecnologia do Bioetanol (CTBE)

*Deciphering Plant Metabolic Regulation Puzzle: The Role of TOR Kinase Signalling*

**Adriano Nunes Nesi**, Universidade Federal de Viçosa (UFV)

*The Contribution of Mitochondrial Metabolism in Photosynthesis*

**Michel Vincentz**, CBMEG-Universidade de Campinas (Unicamp)

*AtbZIP63 Modulates the Pace of Starch Degradation in Arabidopsis thaliana*

Room Fernando Paiva

**SP-12 Natural and Synthetic Antioxidants: Applications in the Therapy for Oxidative Stress-Related Diseases**

Chair: Cristiano Jorge Riger, Universidade Federal Rural do Rio de Janeiro (UFRRJ)

**Sílvia Maria Suter Correia Cadena**, Universidade Federal do Paraná (UFPR)

*Biological Activities of Mesoionic Compounds: Mitochondrial Dysfunction and Cell Toxicity*

**Marcos Dias Pereira**, Instituto de Química, Universidade Federal do Rio de Janeiro (IQ-UFRJ)

*Synthetic Antioxidants; an Alternative Pathway for Therapy of Age-Related Diseases*

**Giselle Cerchiaro**, Universidade Federal do ABC (UFABC)

*Chemical Quantification of Bioessential Metals in Biological Samples and Implications in Neurodegeneration and Oxidative Stress*

**Vanusa Manfredini**, Universidade Federal do Pampa (UNIPAMPA)

*Functional Foods Improve Biochemical and Oxidative Stress Parameters *in vivo*.*

**Monday, June 20 - 8:30 to 10:30**

Room Pipa

**SP-13 Symposium Philip A.j. Gorin: "Glycan Diversity in Fungi and Sea Organisms"**

Chair: Eliana Barreto-Bergerter, Inst. Microbiologia Paulo de Góes, Universidade Federal do Rio de Janeiro (IMPG-UFRJ)

**Guilherme L. Sasaki**, Depto de Bioquímica e Biologia Molecular, Universidade Federal do Paraná (UFPR)

*Challenges and Back to Old School Lessons to Resolve and Develop Approaches for Structural Analysis: The Professor Gorin's Pathway to Move on...*

**Paulo A.S. Mourão**, Hospital Universitário Clementino Fraga Filho, Universidade Federal do Rio de Janeiro (IBqM-UFRJ)

*Perspective on the Use of Sulfated Polysaccharides from Marine Organisms as a Source of New Antithrombotic Drugs*

**Hugo Alexandre Rocha**, Centro de Biociências, Universidade Federal do Rio Grande do Norte (UFRN)

*Insights into Several Activities of Fucan from Seaweed Spatoglossum schröederi*

**Eliana Barreto-Bergter**, Inst. Microbiologia Paulo de Góes, Universidade Federal do Rio de Janeiro (IMPG-UFRJ)

*Diversity of Galactose-Containing Structures in Fungal Cells*

**Barbara Mulloy**, Glycosciences Laboratory, Imperial College London , UK

*NMR Spectroscopy in the Characterization of Complex Glycans*

**Monday, June 20 - 13:30 to 15:30**

Room Lavoisier Maia

**SP-14 Macromolecules: Structure and Function**

Chair: **Maria Luiza Vilela Oliva**, Universidade Federal de São Paulo (Unifesp)

**Jonas Emsley**, School of Pharmacy, University of Nottingham, UK

*Structure of Coagulation FXI bound to a Peptide Derived from Laminin*

**Julio Scharfstein**, Instituto de Biofísica Carlos Chagas Filho, Universidade Federal do Rio de Janeiro (IBCCF-UFRJ)

*Endothelial Barrier Breakdown in Experimental Chagas Disease: Inflammatory Edema Propagated Via the Kallikrein-Kinin System Fuels Intracardiac Parasitism and Associated Pathology*

**Iolanda Tibério**, Faculdade de Medicina, Universidade de São Paulo (FM-USP)

*Protease Inhibitors: Potential Therapeutic Effects in Experimental Models of Asthma and COPD*

**Guacyara Motta**, Universidade Federal de São Paulo (Unifesp)

*The Endocytosis Mediated by Proteoglycans Controls Plasma Kallikrein/Kinin System Activity*

**Monday, June 20 - 13:30 to 15:30**

Room: Ponta Negra

**SP-15 Metabolic Disease and Molecular Control of Mitochondrial Function in Muscle and Adipose**

**Tissue**

Chair: Leonardo R Silveira, Instituto de Biologia, Universidade Estadual de Campinas (IB-UNICAMP)

**Richard C. Scarpula**, Northwestern Medical School, USA

*PRC and c-MYC Act in Concert through Akt-GSK-3 Signaling to Mediate a Stress Response to Respiratory Chain Uncoupler*

**Leonardo R Silveira**, Instituto de Biologia – UNICAMP

*Overexpression of Pyruvate Carboxylase (PC) Improve the Oxidative Energy Metabolism in Skeletal Muscle Cells.*

**Marcelo A.S. Mori**, Universidade Federal de São Paulo (Unifesp)

*Rewiring Metabolism by Targeting Dicer in Adipocytes*

**Elaine C. Vieira**, Universidade Estadual de Maringá (UEM)

*Effects of Melatonin on Mitochondrial Function and Insulin Resistance in Rat Skeletal Muscle*

Room Fernando Paiva

**SP-16 Symposium Uruguay-Brazil - Enzymes: Basics and Applications**

Chair: **Sandro R. Marana**, Instituto de Química, Universidade de São Paulo (IQ-USP)

**Cecilia Giacomini**, Facultad de Quimica, Univ. de La Republica

*Immobilized Glycosidases: Interesting Tools for the Elucidation of Carbohydrate-Protein Interaction in Biological Processes*

**Martín Flo**, Instituto de Higiene, Univ. de La Republica

*An Expanded and Functionally Diverse Family of Kunitz Inhibitors from a Metazoan Parasite*

**Ranilson de Souza Bezerra**, Centro de Ciências Biológicas, Universidade Federal de Pernambuco (CCB-UFPE)

*Fish Processing Waste as a Source of Enzymes for use in Commercial Detergents*

**Sandro R. Marana**, Instituto de Química, Universidade de São Paulo (IQ-USP)

*Protein Structure Network and Thermal Stability*

**Monday, June 20 - 13:30 to 15:30**

Room Pipa

**SP-17 Glycobiology of the Cancer**

Chair: Wagner B. Dias Inst. de Biofísica Carlos Chagas Filho, Univ. Federal do Rio de Janeiro (IBCCF-UFRJ)

**Maria Aparecida da Silva Pinhal**, Universidade Federal de São Paulo (Unifesp)

*Heparan Sulfate Proteoglycan Mediates Resistance in Breast Cancer Cells*

**Julio Cezar M. de Freitas**, Instituto Nacional do Cancer (Inca)  
*Role of N-Glycans in Colorectal Cancer: Functional and Biomarker Applications*

**Mauro Pavão**, Instituto de Bioquímica Médica, Universidade Federal do Rio de Janeiro (IBqM-UFRJ)  
*Inhibition of Manganese-Mediated Tumor Cell Migration by Heparin Analogs*

**Wagner B. Dias**, Instituto de Biofísica Carlos Chagas Filho, Universidade Federal do Rio de Janeiro (IBCCF-UFRJ)  
*Glucose Metabolism and Aberrant Glycosylation during Epithelial Mesenchymal Transition: Role of O-GlcNAc*

**Tuesday, June 21 - 8:30 to 10:30**

Room Lavoisier Maia

**SP-18 Epigenetics of Host-Pathogens Interactions**

Chair: Marcelo Fantappié, Universidade Federal do Rio de Janeiro

**Renata M.S. Pereira**, Instituto de Biofísica Carlos Chagas Filho, Universidade Federal do Rio de Janeiro (IBCCF-UFRJ)  
*Chromatin Accessibility in CD8 T Cell Fates Uncovered by Genome-Wide Studies*

**Frank Lyko**, Abteilung Epigenetik (A130), Deutsches Krebsforschungszentrum  
*Epigenetic DNA Modifications in Aedes aegypti*

**Sergio Verjovski-Almeida**, Instituto Butantan  
*Inhibitors of Schistosome Histone Modifying Enzymes: Effects on Large-Scale Gene Expression*

**Ulisses G. Lopes**, Instituto de Biofísica Carlos Chagas Filho, Universidade Federal do Rio de Janeiro (IBCCF-UFRJ)  
*The NFkB1/HDAC1 Complex Controls the Outcome of Leishmania Infection in Human Macrophages*

**Tuesday, June 21 - 8:30 to 10:30**

Room: Ponta Negra

**SP-19 Teaching Research Integrity? Let Us Count the Ways**

Chair: Martha M Sorenson, Instituto de Bioquímica Médica, Universidade Federal do Rio de Janeiro (IBqM-UFRJ)

**Harold Ray Garner Jr**, Medical Informatics, Translation, Training and Ethics (MITTE) Office, Virginia Tech  
*Finding and Learning from Ethical Breaches by Scientists*

**Marcela Sorelli**, UFABC  
*Research Integrity at Universidade Federal Do ABC*

**André L. Pinto**, Centro Bras. Pesquisa Física (CBPF)  
*Difficulties and Advances in Teaching Good Practices in Scientific Research*

**Rosemary S.A.Shinkai**, Fac Odontologia, PUCRS  
*The Building Blocks of a Research Integrity Culture in the University*

**Tuesday, June 21 - 8:30 to 10:30**

Room Fernando Paiva

**SP-20 Symposium SBBq-Conesul I - Young Scientist Platform Session**

Chair: Daniela Basseres, Instituto de Química, Universidade de São Paulo (IQ-USP)

**Jéssica de Andrade da Costa**, Instituto Nacional do Câncer (INCA)  
*Altered N-glycosylation in Progeny from Irradiated Colorectal Cancer Cells Contribute to Acquisition of EMT-Like Phenotype*

**Bruna Alves Fenerich**, Faculdade de Medicina de Ribeirão Preto, Universidade de São Paulo (FMRP-USP)  
*The IGF1R/IRS Inhibitor NT157 Induces Apoptosis and STAT3 Inhibition in JAK2V617F Cells*

**Damian Emilio Berardi**, Institute of Oncology “Ángel H. Roffo”, Argentina  
*Pharmacological Inhibition of PKC $\alpha$  and Retinoic Acid Synergize to Inhibit Tumour Progression and Impair Self-Renewal of Cancer Stem Cells through RAR $\gamma$ 2 Modulation in a Murine Triple Negative Mammary Cancer Model.*

**Matheus Rodrigues Lopes**, University of Campinas (FCM/Hematology and Hemotherapy Center)  
*The Role of IL32 in the Acute Myeloblastic Leukemia Chemoprotection and Leukocyte Migration*

**Maria Fernanda Forni**, Instituto de Química, Universidade de São Paulo (IQ-USP)  
*Caloric Restriction Promotes Fur Remodeling as a Thermoregulatory Mechanism*

**Tuesday, June 21 - 8:30 to 10:30**

Room Pipa

**SP-21 Ion Pumps Boom: From Yeast to Cancer Bioenergetics**

Chair: Arnoldo Rocha Façanha, Universidade Estadual do Norte Fluminense (UENF)

**Raul Martinez-Zagulán**, Texas Tech University, USA  
*Vacuolar H<sup>+</sup>-ATPases in Tumor Angiogenesis*

**Antonio Galina Filho**, Instituto de Bioquímica Médica, Universidade Federal do Rio de Janeiro (IBqM-UFRJ)  
*Targeting Bioenergetics Diversity and Convergence in Cancer and Plant Cells*

**Arnoldo Rocha Façanha**, Universidade Estadual do Norte Fluminense (UENF)

*Ion Pumps Boom: From Yeast to Cancer Bioenergetics*

**Lucília Maria Abreu Lessa**, Universidade Estadual do Ceará (UECE)  
*Peptide and Ionic Modulation of Renal H<sup>+</sup>-ATPases*

**Tuesday, June 21 - 13:30 to 15:30**

Room Lavoisier Maia

**SP-22 Biochemistry of Spiders**

Chair: **Adriana Rios Lopes**, Instituto Butantan

**Glen King**, Univ of Queensland, Australia

*Natural Insecticidal Peptides from Spider Venom for Control of Crop Pests and Disease Vectors*

**Lucia Kuhn-Nentwig**, University of Bern, Switzerland

*Function of a Hyaluronidase-Like Enzyme in the Venom of Spiders*

**Pedro Ismael da Silva Junior**, Instituto Butantan

*Arachnida Hemolymph and Immunity*

**Alexandre K. Tashima**, Universidade Federal de São Paulo (Unifesp)

*Disclosing the Toxin Arsenal of Acanthoscurria juruenicola Spider Venom in Depth Proteome and Transcriptomic Analysis*

**Tuesday, June 21 - 13:30 to 15:30**

Room: Ponta Negra

**SP-23 Molecular and genomics approaches to uncover pathophysiologic mechanisms of complex diseases**

Chair: Selma Jeronimo Universidade Federal do Rio Grande do Norte (UFRN)

**Walderez Dutra**, Universidade Federal de Minas Gerais (UFMG)

*Cellular, genetic and molecular aspects associated with the differential clinical evolution of human Chagas disease.*

**Leonardo Capistrano Ferreira**, Dep. of Biochemistry, Universidade Federal do Rio Grande do Norte (UFRN)

*Berardinelli Syndrome as Model for the study of metabolic and infectious diseases:*

**Helena Oliveira**, Instituto de Biologia, Universidade Estadual de Campinas (IB-Unicamp)

*Cholesterol and cardiovascular disease*

**Mary E. Wilson**, The University of Iowa, Iowa City, Iowa

*The role of host and vector microbiome in infectious Diseases*

**Tuesday, June 21 - 13:30 to 15:30**

Room Fernando Paiva

**SP-24 Symposium SBBq-Conesul II - Young Scientist Platform Session**

*Chair: Maria Tereza dos Santos Correia (UFPE)*

**Rafael Teixeira Tiburcio dos Santos**, Centro de Pesquisas Gonçalo Moniz,  
Laboratório de Microbiologia, BA

*Neutrophil State of Activation Modulates Dendritic Cells Susceptibility to  
Leishmania amazonensis Infection*

**Luiza Gervazoni Ferreira de Oliveira**, Fundação Oswaldo Cruz (Fiocruz), RJ  
*2'-Hydroxyflavanone Effects In vitro and In vivo against Leishmania amazonensis*

**Daiane Patrícia Oldiges**, Centro de Biotecnologia, Universidade Federal do Rio  
Grande do Sul (CBIOT-UFRGS)

*Babesia bovis as an Anti-Tick Live Vector Vaccine*

**Mateus Grings**, Universidade Federal do Rio Grande do Sul (UFRGS)

*Bezafibrate Prevents Mitochondrial Dysfunction and Redox Homeostasis  
Impairment Induced by Sulfite Administration in Rat Striatum*

**Vitor Coutinho Carneiro**, Instituto de Bioquímica Médica, Universidade Federal do  
Rio de Janeiro (IBqM-UFRJ)

*Targeting Epigenetic Regulators to Control Schistosomiasis*

**Tuesday, June 21 - 13:30 to 15:30**

Room Pipa

**SP-25 Generating Novel Pharmacies and Biomedical Devices by using Antimicrobial  
Peptides**

*Chair: Octavio Luiz Franco, Universidade Católica de Brasília (UCB)*

**Cesar da Le Fuente-Nunez**, MIT-US

*Next-Generation Engineered Peptide Antibiotics*

**Ludovico Migliolo**, Universidade Católica Dom Bosco- MS (UCDB)

*Rational Design to Bioactive Peptides in the Development of Biotechnological  
Tools for Therapies against Human Pathogens*

**César Augusto Souza de Andrade**, Universidade Federal de Pernambuco (UFPE)

*Development of Multiple Biomedical Nanodevices by Using Antimicrobial*

**Octavio Luiz Franco**, Universidade Católica de Brasília UCB)

*Elucidation of synthetic and natural multifunctional peptides for development of  
biotechnological tools*