

Young Scientist Program

São Paulo – August 20th to 22nd, 2015

A satellite meeting of the 23rd Congress of the International Union for
Biochemistry and Molecular Biology and
44th Annual Meeting of the Brazilian Society for Biochemistry and
Molecular Biology, Foz do Iguaçu, Paraná, Brazil, August 24th to 28th,
2015

Scientific Program



Dear Colleagues,

It is my pleasure to welcome you the *Young Scientist Program*, in the city of São Paulo from August 20th to the 22th, 2015. YSP is a satellite meeting of the 23rd Congress of the International Union for Biochemistry and Molecular Biology and the 44th Annual Meeting of the Brazilian Society for Biochemistry and Molecular Biology. This important satellite event congregates the new generation of biochemists and molecular biologists to discuss science for 3 days and get to know our city and the University of São Paulo.

We want to congratulate you for being selected among hundreds of applicants. The program was prepared to offer a broad overview of the frontiers of research and recent developments in many aspects of Biochemistry and Molecular Biology, as well as to give you the opportunity to experience our culture. We will have 47 oral presentations by young scientists, 2 seminars by Brazilian professors, visit of some USP research facilities, a guided tour to the city and several fun places to lunch and dine.

We hope this environment will allow you to engage in high level scientific discussions so you can find future research partners and life-long friends.

Thank you for coming. We look forward to your participation!

Alicia J. Kowaltowski

Maurício S. Baptista

YSP Coordinators



Thursday, August 20 th , 2015	
14:00-16:00	Registration – Howard Johnson Faria Lima Hotel
16:00-16:30	Opening Session
16:30-17:30	Opening Conference Chair: Glaucius Oliva , Instituto de Física de São Carlos, Universidade de São Paulo, Brasil and Chair of the 23 rd IUBMB Congress Leda Q. Vieira Universidade Federal de Minas Gerais (UFMG), Brazil <i>Interferon gama in infection with Leishmania amazonensis: a double-edged sword</i>
17:30-18:00	Coffee Break
18:00-19:45	Symposium 1 Chair: Philip Nagley , Monash University, Australia
18:00-18:13	Valentina Parra , UT Southwestern Medical Center, USA <i>RCAN1 suppresses mitochondrial fission, protecting the heart from calpain-mediated damage from I/R.</i>
18:13-18:26	Bruno Queliconi , USP-IQ, Brazil <i>Basis for Bicarbonate Damage in Myocardial Ischemia/Reperfusion Injury</i>
18:26-18:39	Ana Filipa Barata Duarte Guedes , Faculdade de Medicina da Universidade de Lisboa, Portugal <i>High fibrinogen levels promote erythrocyte-erythrocyte adhesion, becoming an important cardiovascular risk factor</i>
18:39-18:52	Beatriz Sánchez Calvo , Agencia Nacional de Investigación e Innovación (ANII), Uruguay <i>Extra virgin olive oil consumption modulate mitochondrial function in high fat-fed mice: potential role of nitro fatty acids</i>
18:52-19:05	Micaela López León , National University of La Plata, Argentina <i>Construction of a Polycistronic Regulatable Vector Expressing the Yamanaka Genes for Reprogramming Fibroblasts to Cardiomyocytes</i>
19:05-19:15	Roberto Francisco Bravo Sagua , University of Chile, Chile <i>Spatial regulation of ER-mitochondria crosstalk by Caveolin-1 and Protein kinase A during early ER stress</i>
19:15-19:31	Mauricio Peña Cunha , UFSC, Brazil <i>Sub-chronic administration of creatine produces antidepressant-like effect and modulates hippocampal neuroplasticity in mice: The role of the intracellular signaling pathway mediated by BDNF/Akt</i>
19:45	Cocktail



Friday, August 21 st , 2015 – Instituto de Química da USP – Red Amphitheater	
08:30–9:50	Symposium 2 Chair: Letícia Labriola , IQ, Universidade de São Paulo, Brazil
8:30-8:43	Maria Fernanda Forni , IQ, Universidade de São Paulo, Brazil <i>Mitochondrial regulation of mesenchymal stem cell fate</i>
8:43-8:56	Andrea Magri , Università di Catania, Italy <i>Expression of hSOD1 in porin1-less yeast strain restores mitochondrial functionality modulating the protein composition of mitochondrial membranes</i>
8:56-9:09	Alvaro M. Gonzalez Ibañez , Universidad Andres Bello, Chile <i>Mitochondrial fission exacerbation in human hematopoietic stem cells disrupts heme biosynthesis and terminal erythroid differentiation</i>
9:09-9:22	Cesar Ramirez-Sarmiento , Universidad de Chile, Chile <i>Capturing protein structure ensembles of <i>E. coli</i> phosphofructokinase-2 using hydrogen-deuterium exchange mass spectrometry</i>
9:22-9:35	Juliana Camacho Pereira , Universidade Federal do Rio de Janeiro, Brazil <i>Role of CD38 in age-related NAD⁺ depletion: implication for age-related metabolic dysfunction and “NAD⁺ replacement” therapy.</i>
9:35-9:48	Matthew Battistini , University of South Florida Chemistry Department, USA <i>Investigation of 1-deoxy-D-xylulose-5-phosphate Synthase (DXS) and 1-deoxy-D-xylulose 5-phosphate reductoisomerase (DXR) from <i>P. falciparum</i> and <i>P. vivax</i>, including their implications in the development of novel antimalarials and antibiotics</i>
9:50-10:20	Coffee Break
10:20-12:05	Symposium 3 Chair: Roberto K. Salinas , IQ, Universidade de São Paulo, Brazil
10:20-10:33	Mey Ling Reytor González , Havana University., Cuba <i>A novel and non-canonical mechanism of carboxypeptidase inhibition revealed by the crystal structure of the tri-kunitz SmCl in complex with human CPA4</i>
10:33-10:46	Ornchuma Itsathitphaisarn , Mahidol University, Thailand <i>Study on transmission of infection by the Microsporidian, <i>Enterocytozoon Hepatopenaei</i> (EHP) in shrimp</i>
10:46-10:59	Matias I. Hepp Castro , Universidad de Concepcion, Chile <i>The physical presence and activity of the yeast SWI/SNF complex on gene regulatory regions is dependent on HMGB proteins.</i>
10:59-11:12	Jose Luiz De Souza Lopes , Instituto de Física de São Carlos, USP, Brazil <i>Exploiting the putative binding sites of DGAT1 enzyme: a fluorescence spectroscopy and synchrotron radiation circular dichroism study</i>
11:12-11:25	Luciana Coutinho de Oliveira , IQ, Universidade de São Paulo, Brazil <i>NMR Structure of the complex formed by VirB9 and VirB7 from the Type IV Secretion System of <i>Xanthomonas citri</i> and studies of intermolecular interactions</i>
11:25-11:38	Pearl Lee , The University of Sydney, Australia <i>A novel cell adhesion region in tropoelastin that mediates attachment to integrin alphaVbeta5</i>
11:38-11:51	Rakibul Islam , University of Dhaka, Bangladesh <i>Functional analysis of the genes in Sp5, the Stx2 phage of O157:H7 Sakai</i>
11:51-12:04	Anastassia Voronova , Hospital For Sick Children, Canada <i>Ankrd11 is an epigenetic regulator involved in autism that is essential for neural development</i>
12:05-13:30	Lunch at “Praça da Integração” Instituto de Química, USP

13:30-14:48	Symposium 4 Chair: Andrés Trostchansky , Facultad de Medicina, Universidad de La Republica, Uruguay
13:30-13:43	Andreia Neves Carvalho , Universidade de Lisboa, Portugal <i>Modulation of the Unfolded Protein Response and Antioxidant Response by S-glutathionylation</i>
13:43-13:56	Peter C. Hart , University of Illinois at Chicago, USA <i>Caveolin-1 (Cav-1) prevents MnSOD-dependent aerobic glycolysis via repression of Nrf-2</i>
13:56-14:09	Maria Alejandra Martinez D'Alto , Facultad de Medicina, Universidad de la República, Uruguay <i>Relevance of <u>Trypanosoma cruzi</u> Fe-superoxide dismutases in macrophage and cardiomyocyte infections</i>
14:09-14:22	Nikolaos Mandalos , University of Athens, School of Medicine, Greece <i>Sox2 acts as a rheostat of epithelial to mesenchymal transition during neural crest development</i>
14:22-14:35	Rafael Augusto Homem , University of Edinburgh, UK <i>S-nitrosylation regulates <u>Drosophila</u> immunity</i>
14:35	IQUSP-International Cooperation (Maurício S. Baptista)
14:50-17:00	Visit to Research Centers in the University of São Paulo Instituto de Física – Pelletron Instituto de Ciências Biomédicas – CEFAP Instituto de Química – Central Analítica
17:00-17:20	Coffee Break
17:20-19:00	Symposium 5 Chair: Maurício S. Baptista , IQ, Universidade de São Paulo, Brazil
17:20-17:33	Lohans Pedrera Puentes , University of Havana, Cuba <i>Lipid phase coexistence and membrane fluidity favor membrane insertion and pore-forming ability of sticholysin I, a highly cytolytic toxin from a sea anemone</i>
17:33-17:46	Isabel de Oliveira Lima Bacellar , IQ, Universidade de São Paulo, Brazil <i>The chemical route to photoinduced permeabilization of phospholipid membranes</i>
17:46-17:59	Leonardo Fruttero , PUC-RS, Brazil <i>β-chain of ATP synthase and its function in the transfer of lipids from lipophorin to target tissues in the hematophagous insect vector <u>Panstrongylus megistus</u> (Hemiptera: Reduviidae)</i>
17:59-18:12	Michele Alves-Bezerra , Federal University of Rio de Janeiro, Brazil <i>Characterization of long-chain acyl-CoA synthetases 1 and 2 and its physiological role in the insect <u>Rhodnius prolixus</u></i>
18:12-18:25	Lhor Mustapha , Laval University / CUO-Recherche, Canada <i>Retinol dehydrogenases, membrane binding enzymes for the visual function</i>
18:25-18:38	Ricardo Ignacio Tejos Ulloa , University of Chile, Chile <i>Phosphoinositide-localized biosynthesis links endocytic trafficking and heat shock response in <u>Arabidopsis thaliana</u></i>
18:38-18:51	Carolina de Moura Gubert , UFRGS, Brazil <i>The receptor P2X7 participates in the AMPH-induced increase of proinflammatory environment and ultimately in the behavioral response in an animal model of mania</i>
18:51-19:04	Mahmud Hossain , University of Dhaka, Bangladesh <i>Tsukushi and draxin plays important role in forebrain commissure formation through genetic interaction</i>



Saturday, August 22 nd , 2015 – Instituto de Química da USP - Red Amphitheater	
07:30-14:00	São Paulo visit + lunch
14:00-15:20	Symposium 6 Chair: Khalid Fares, Université Cadi Ayyad, Marrakesh
14:00-14:13	Hansel Gómez , Institute for Research in Biomedicine (IRB-Barcelona), Spain <i>Combined theoretical and experimental study of a new class of endonuclease using a histidine to form a protein-5'-DNA adduct.</i>
14:13-14:26	Natalia Díaz Valdivia , Universidad de Chile, Chile <i>Anti-neoplastic drugs at sub lethal doses augment caveolin-1 expression and caveolin-1 dependent migration and invasion of cancer cells</i>
14:26-14:39	Agnieszka Rawłuszko-Wieczorek , Poznan University of Medical Sciences, Poland <i>Epigenetic regulation of hypoxia-inducible factor -3α (HIF-3α) expression in colorectal cancer</i>
14:39-14:52	John Schell , University of Utah, USA <i>Loss of the mitochondrial pyruvate carrier is a novel mediator of the warburg effect</i>
14:52-15:05	Shelby Ann Newsad , The Ohio State University, USA <i>The effect of the acetaminophen metabolite AM404 on the viability of daudi cells in culture</i>
15:05-15:18	Katiuska González-Arzola , University of Seville, Spain <i>A common signalosome for programmed cell death in humans and plants</i>
15:20-15:50	Coffee Break
15:50-17:25	Symposium 7 Chair: Aline Maria da Silva, IQ, Universidade de São Paulo, Brazil
15:50-16:03	Saba Riaz , University of Agriculture Faisalabad, Pakistan <i>CPSF subunit gene expression in non-induced and fungus-induced tomato</i>
16:03-16:16	Fiona C Robertson , University of Zimbabwe, Zimbabwe <i>Characterisation of Cassava mosaic disease (CMD) in Zimbabwe</i>
16:16-16:29	Luísa Hoffmann , Federal University of Rio de Janeiro, Brazil <i>Genetic variability of hepatitis C virus NS3 protease from chronically infected patients submitted to telaprevir-based therapy</i>
16:29-16:42	María Cristina Vanrell , IHEM-Conicet, Argentina <i>Participation of autophagy and polyamines on <i>Trypanosoma cruzi</i> differentiation processes.</i>
16:42-16:55	Claudia Fernanda Dick , Universidade Federal do Rio de Janeiro, Brazil <i>Inorganic phosphate transport activities in <i>Toxoplasma gondii</i></i>
16:55-17:08	Fernando Valiente-Echeverría , Universidad de Chile, Chile <i>HIV-1-induced disassembly of stress granules to counter host anti-viral stress responses</i>
17:08-17:21	Paulo Roberto Ribeiro de Jesus , Wageningen University, The Netherlands <i>Biochemical and molecular signature of <i>Ricinus communis</i> seeds and seedlings in response to different temperatures: a multi-omics approach</i>
17:25-17:55	Coffee Break
18:00-19:00	Closing Conference Chair: Alicia Kowaltowski, IQ-USP Shaker Chuck Farah , Instituto de Química, Universidade de São Paulo, Brazil <i>Bacterial Wars: A new role for type IV secretion system</i> Closing Ceremony

Organizing Committee

Alicia J. Kowaltowski, Instituto de Química, USP
Maurício da Silva Baptista, Instituto de Química, USP
Cynthia Sayuri Bando, SBBq Executive Secretary

SBBq - Board of Directors

Jerson Lima da Silva, President
José Roberto Meyer-Fernandes, Vice President
Walter R. Terra, General Secretary
Sandro R. Marana, First Secretary
Alicia J. Kowaltowski, Treasurer
Maurício da Silva Baptista, First Treasurer

Chair of the 23rd International IUBMB Congress

Glaucius Oliva

SBBq Staff

Arnaldo Casari
Marcelo Andrade

Supported by:



Ministério da
Educação



GE Healthcare

We also thank you:

