

Important Information

Congress Secretariat:

- 1) The Congress Secretariat will be open from 5pm - 7 pm (August 20) and from 8:00am - 6:00 pm (August 21-22). It is located at Monte Real Hotel.
- 2) The certificates will be available at August 22 from 2:00 am - 6:00 pm
- 3) Slide desk will be open from 7:30 am to 6:00 pm everyday. Please, bring your presentation to slide desk at least 1 hour before your presentation

Program

DATE	EVENTS	HOUR	ROOM
21/08/07 Tuesday	Opening Session	08:00 h	Rubi
	Conference I	08:15 h	Rubi
	Symposiums I, II e III Symposium I Symposium II Symposium III	09:00 - 11:00 h	Topázio Safira Rubi
	Symposiums IV,V e VI Symposium IV Symposium V Symposium VI	11:15 - 13:15 h	Topázio Rubi Safira
	Symposiums VII, VIII e IX Symposium VII Symposium VIII Symposium IX	14:30 - 16:30 h	Rubi Topázio Safira
	Conference II	17:00 - 17:50 h	Rubi
22/08/07 Wednesday	Symposiums X, XI, XII Symposium X Symposium XI Symposium XII	08:00 - 10:00 h	Rubi Topázio Safira
	Symposiums XIII, XIV, XV Symposium XIII Symposium XIV Symposium XV	10:15 - 12:15 h	Topázio Rubi Safira
	Conference III	12:30 - 13:15 h	Rubi
	Symposiums XVI, XVII, XVIII Symposium XVI Symposium XVII Symposium XVIII	14:30 - 16:30 h	Topázio Rubi Safira
	Assembléia Geral da SBBf	16:30 - 17:00 h	Topázio
	Poster Session	18:00 - 20:00 h	Imperial
	Conference IV and Closing Session	20:30 - 22:00 h	Real

21/08/2007

8:00 - Opening Session Room RUBI

- ▶ **8:15 - Room Rubi: Conference Dr. Jerson Lima (UFRJ) Structural Biology and Dynamics of Macromolecules Involved in Human Diseases**

9:00 - 11:00 - Symposiums I, II e III.

- ▶ **Room Topázio: Symposium I**

Thyroid hormone receptors Molecular Structure and the development of new ligands. Chairperson: Carmen Cabanelas Pazos Moura

Thyroid Hormone Receptors: Structure, Molecular Dynamics and Design of New Ligands . Igor Polikarpov (USP)

Diferencial role of thyroid hormone receptor isoforms. Tânia Maria Ortiga Carvalho (UFRJ) The Effect of the TR Beta Selective Analog GC-1 on Bone. Cecília Gouveia (USP)

Cellular and molecular effects of Thyroid Homone Receptor beta analogs on skeletal muscle. Anselmo Moriscot (USP)

- ▶ **Room Safira: Symposium II**

Biophysics purinergic signaling and diseases chairperson: Dr. Robson Coutinho Silva(UFRJ)

P2 receptors signaling and intracellular pathogens elimination. : Dr. Robson Coutinho Silva (UFRJ) Ecto-nucleotidases in tumoral cells. : Dra. Ana Maria Oliveira Battastini (UFRGS)

Involvement of a calcium-independent phospholipase A2 and 5-lipoxygenase in the apoptosis induced by extracellular ATP via P2X7 receptors in macrophages. Helio Miranda Costa Junior (InCor HCMUSP SP). Mechanism-based development of RNA aptamers as allosteric inhibitors of P2X2 purinergic receptors. Dr. Henning Ulrich. (USP)

- ▶ **Room Rubi : Symposium III**

Biomimetic Systems: study of molecular interactions using monolayers, micelles and liposomes. Chairperson: Pietro Ciancaglini

Structural and functional implications of the interfacial composition in supramolecular aggregates: The use of chemical trapping for the determination of interfacial concentrations. Iolanda M. Cuccovia (USP)

Drug Model membrane interaction as investigated by light and small angle X-Ray scattering and molecular modelling. Rosangela Itri (USP)

Proteoliposomes as a tool to study: lipid-enzyme interactions, a system to carry antigenic proteins and as biosensors. Dr. Pietro Ciancaglini (FFCLRP-USP)

Molecular details about local anesthetic-liposome interaction, as revealed by nuclear magnetic resonance. Dra. Eneida de Paula (UNICAMP)

11:00 Coffee Break

11:15 - 13:15 Symposiums IV, V, VI.

- ▶ **Room Topázio: Symposium IV**

Lipid bilayer modulating biological activity of proteins and peptides. Chairperson. Dr. João Rugierro

Optical microscopy of giant lipids vesicles. Dra. Karin Amaral Riske (UNIFESP)

Electron Spin Resonance and Site-Directed Spin Labeling in Studies of Lipid-protein Interactions. Dr. Antonio José Costa (Instituto de Física São Carlos USP)

Conformational analysis and lytic activity of antimicrobial peptides. Dr. João Rugierro (UNIFESP)

Molecular Dynamics in Biomembranes. Dr. Pedro Pascutti (UFRJ)

- ▶ **Room Rubi: Symposium V**

"Molecular Modeling: Theory and Applications in Biological Systems Chairperson Dr. Laurent Emmanuel Dardenne

Genetic Algorithms for Ab Initio Protein Structure Prediction. Dr. Laurent Emmanuel Dardenne (LNCC)

Atomic burials as informational intermediates between amino acid sequences and protein three-dimensional structures. Dr. Antonio Francisco Pereira de Araújo (UnB)

Molecular Dynamics simulations in the structural, conformational and functional characterization of biomacromolecules. Dr. Hugo Verli (UFRGS)

Using molecular modelling to explore fundamental interactions in structural biophysics. Dr. Fernando Luis Barroso da Silva (USP-FCFRP)

- ▶ **Room Safira: Symposium VI**

ATPases: New aspects for old concepts Chairperson: Dr. Celso Caruso Neves

Ion transporting ATPases. What is new innechanisms and regulation? The paradigm of yeast copper ATPase. Dr. Adalberto Vieyra(UFRJ)

Multidrug resistance: Is it possible to change this phenomenon? Dr. Antonio Ferreira Pereira(UFRJ)

Ecto-nucleoside triphosphate diphosphohydrolases in protozoa parasites: new aspects. Dr. Jose Roberto Meyer Fernandes (UFRJ)

Heavy metal transporting P-type ATPases: the newest described but ancient ATPases. Dra. Jennifer Lowe (UFRJ)

14:30 -16:30 Symposiums VII, VIII, IX

- ▶ **Room Rubi: Symposium VII**

Nanotechnology Applied to Health I Chairperson: Bartira Rossi Bergmann

Use of new nanostructure drug delivery sysetm (DDS) with photosensitizer compounds applicable to Photodynamic Therapy of Cancer. Dr. Antonio Cláudio Tedesco (USP-RP)

Magnetic fluids and magnetoliposomes in biomedical applications: magnetohyperthermia and drug delivery systems. Dra. Zulmira Guerrero Marques Lacava (Universidade de Brasília)

Program

A solitary protein nanometer-scale pore for single molecule mass discrimination. Dr. Oleg Vladimirovich Krasilnikov (UFPE).

Nanotechnology for improved antileishmanial drugs and vaccines. Dra. Bartira Rossi Bergmann (UFRJ)

Challenges for DNA vaccine development. Dr. Célio Lopes Silva (USP-RP)

▶ Room Topázio: Simposio VIII

Bioactive molecules modulating ionic channels. Chairperson- Demetrius Antonio Machado Araújo

How peptide toxins can alter the kinetics of sodium channels. Paulo Beirão - (UFMG)

Terpenoids as blockers of voltage-dependent Na⁺ channels. Dr. Antonio Carlos Cassola (USP)

2-methoxy-N-Benzoyl-Tryptamine, is it a new ligand for Kv1.3 potassium channels? Dr. Jader Cruz (UFMG)

Possible modulation of saponins on the potassium channel, kv1.3. Demetrius Antonio Machado Araújo (UFPB)

▶ Room Safira: Symposium IX

Light on Biomolecules: Macromolecular structural Biology at the Brazilian Synchrotron Light Laboratory- Chairperson: Dra. Beatriz Gomes Guimarães.

Macromolecules in motion: time-resolved fluorescence and dynamics at LNLS. Dr. Fábio Antonio Schaberle (Laboratório Nacional de Luz Síncrotron)

A New Frontier: Low resolution structure of biomolecules in solution using X-ray scattering techniques. Dra. Iris L. Torriani (UNICAMP)

Protein NMR at the Brazilian Synchrotron Light Laboratory. Dr. Maurício Luis Sforça(LNLS)

Macromolecular Crystallography to Study Biological Systems. Dra. Beatriz Gomes Guimarães (LNLS) beatriz@lnls.br

▶ 17:00 - 17:50 Room Rubi: Conference II

Dr. Bruno Maggio (Universidad Nacional de Córdoba Argentina) - Surface Topography and Dynamic Self-organization of Lipid-Protein Monolayers.

▶ 19:30 - 21:30 Pub do Hotel Monte Real

Coquetel Homenagem aos ex-presidentes e Sócios Ilustres da SBBf

22/08/2007

8:00 10:00 Symposiums X, XI, XII

▶ Room Rubi: Symposium X

Molecular Modeling in Post-Genomics- Chairperson - Dr. Paulo Mascarello Bisch.

Modeling of dynamical properties of biomolecules. Dr. Ernesto R. Caffarena (PROCC-FIOCRUZ)

The structure of Functional Domains in Proteins: Modelling and Experiment. Dr. Richard Charles Garratt (USP)

Tetramerization of the LexA repressor in solution. Implications for gene regulation of the E. coli SOS system at acidic pH. Dr. Ronaldo Mohana (UFRJ)

Molecular Modeling in Post-Genomics. Dr. Paulo Mascarello Bisch (UFRJ)

▶ Room Topázio: Symposium XI

Interaction between electric fields and biological systems. Chairperson- Rosana Almada Bassani

Cardiac response to external field stimulation : from the cell to the organ. Dr. Paulo Alberto P. Gomes (Sépie Ltda, Mogi das Cruzes, SP)

Orientation vs. Polarization during threshold and lethal stimulation of cardiac myocytes by electric fields. Dra. Rosana Almada Bassani (UNICAMP)

Electroporation modeling in cell membranes. Dr. Airton Ramos (Universidade do Estado de Santa Catarina)

Electric Field Generated by Neuronal Activity during Epileptiform Discharge. Dr. Antonio Carlos G. de Almeida (Universidade Federal de São João Del Rei)

▶ Room Safira: Symposium XII

Biophysics of ion Channels and ion Transporters Chairperson- Luiz Artur Poletto Chaves

Chloride currents in mice Leydig cells Dr. Luiz Artur Poletto Chaves

Regulation of NHE3 in renal proximal tubules. Nancy Amaral Rebouças (ICB/USP)

Maxi-K channels in renal potassium secretion. Gerhard Malnic (ICB-USP-SP)

Probing pore geometry of the CFTR channel by polymer partitioning. Oleg Vladimirovich Krasilnikov (UFPE).

10:00 Coffee Break

10:15 - 12:15 - Symposiums XIII, XIV, XV

▶ Room Topázio: Symposium XIII

Cell Membrane Biophysics: The role of lipids in membrane structure and cell signaling. Chairpersones- Dra Aida Hassón-Voloch e Dr. Marcelo Einicker Lamas

Analysis of amphiphile-protein interactions in membranes using steady-state and time-resolved fluorescence. Dra. Sonia Renaux Louro(PUC-RJ)

Phosphatidylinositol 4-kinase is regulated by sphingosine within basolateral membrane lipid rafts from kidney proximal tubule cells. Dr. Marcelo Einicker Lamas (IBCCF/UFRJ)

Program

The Role of Bioactive Phospholipids on Chagas Disease Transmission. Dr. Mario Alberto C. Silva Neto (IBqM/UFRJ)

Vesicular polysaccharide export in *Cryptococcus neoformans* is a eukaryotic solution to the problem of fungal trans-cell wall transport. Dr. Marcio Lourenço Rodrigues (IMPPG/UFRJ)

▶ Room Rubi: Symposium XIV

Nanotechnology Applied to Health II Chairperson- Dr. Jorge Luis Pesquero

Nanotechnology applied to cancer treatment. Dra. Mônica Cristina de Oliveira - Faculdade de Farmácia, UFMG

Use of nanoparticle-based magnetic materials in drug carrier systems. Dr. Paulo César de Moraes, Instituto de Física, UNB.

Nanotechnology applied to Infect-contagious and parasitic diseases. Duração: 30 minutos. Profa. Vanessa Carla Furtado Mosqueira - Escola de Farmácia, UFOP.

▶ Room Safira: Symposium XV

Physical techniques on the structural study of bio-systems Chairperson: Dra. Maria Teresa Lamy (USP)

Biomimetic systems probed by fluorescence techniques. Dr. Amando Ito (USP)

Optical tweezers, defocusing microscopy and light scattering studies of single-molecules and living cell motility. Dr. Oscar Nassif Mesquita (UFMG)

Spin labels monitoring structural alterations in lipid model membranes: a study with the anthraquinone barbaloin. Dra. Maria Teresa Lamy (IFUSP)

Protein meets lipid. The role of lipid in protein folding. Dr. Joachim Seelig (University of Basel Biozentrum Switzerland)

▶ 12:30 - 13:15: Room Rubi: Conference III

Dr. Francisco V. Sepúlveda (Centro de Estudios Científicos (CECS) - The gating of two-pore domain potassium KCNK channels by extracellular pH.

14:30 16:30 - Symposiums XVI, XVII, XVIII

▶ Room Topázio: Symposium XVI

Millenium Institute of Structural Biology in Biomedicine and Biotechnology . Chairperson- Dr. Ronaldo da Silva Mohana Borges (UFRJ)

The dark side of protein folding: studies with amyloidogenic proteins. Dra. Débora Foguel (UFRJ)

Mono and Binuclear metallic complexes and their interaction with DNA. Dr. Héryan Terenzi (UFSC)

Structure and Function Relationship of HSP40. Dr. Julio César Borges (IQSC/USP-SC)

Novel structural and thermodynamic insights on dengue virus fusion. Dr. Ronaldo da Silva Mohana Borges (UFRJ)

▶ Room Rubi: Symposium XVII

Advances in optical, electron and scanning probe microscopy. Chairperson- Gilberto Weismuller

Fundamentals and Applications of Multiphoton Microscopy. André Marco de Oliveira Gomes - Instituto de Bioquímica Médica - UFRJ

Fundamentals and applications of Cryo-electron Tomography. Julio Ortiz Espinoza (Max Planck Institute of Biochemistry Germany)

Fundamentals and Applications of Atomic Force Microscopy - Gilberto Weismuller IBCCF-UFRJ

▶ Room Safira: Symposium XVIII

Membrane biophysics Chairperson- Dr. Christopher Kushmerick (UFMG)

Connections between connexins and calcium homeostasis in the lens. Dr. Ricard T. Mathias State University of New York (SUNY)

Modulation of gap junctions by protein kinases. Dra. Cristiane del Corso (UFRJ)

Calcium dynamics in Leydig cells. Dr. Wamberto Varanda (FMRP-USP)

Studying information processing in small biological networks by the implementation of artificial synapses between a computer model neuron and the living neurons. Dr. Reynaldo Daniel Pinto (IF-USP)

Regulation of pre-synaptic Ca⁺⁺ channels. Dr. Christopher Kushmerick (UFMG)

▶ 16:30 - 17:00 - Room Topázio: Assembléia Geral da Sociedade Brasileira de Biofísica

▶ 18:00 - 20:00: Poster Session Imperial Room

▶ 20:30 - 22:00: Room Real Closing Session

▶ Conference IV

ATP Synthesis and Heat Production by Brown Adipose Tissue Mitochondria : Regulation by GDP And Ca²⁺ - Dr. Leopoldo De Meis (UFRJ) - Homenagem aos 70 anos de da Sociedade Brasileira de Biofísica, Encerramento do Congresso de Biofísica e Sessão de Abertura da FeSBE.