



20th IUPAB Congress
45th Annual Meeting of SBBf, and 50th Annual Meeting of SBBq
October 4th to 8th, 2021 – Virtual Meeting

scientific program

keynote lectures

04/10 – 9:30 to 10:30 am

Keynote Lecture 1

Chair: Manuel Prieto, iBB-IST, Portugal

Richard Henderson, MRC Labs, Cambridge, UK

Impact of single particle electron cryo-microscopy in structural biology

04/10 – 1:30 to 2:30 pm

Keynote Lecture 2

Chair: Leandro Barbosa, IF-USP, Brazil

Carlos Bustamante, University of Berkeley, USA

Co-temporal Force and Fluorescence Measurements Reveal a Ribosomal Gear-shift Mechanism of Translation Regulation by mRNA Secondary Structures

05/10 – 9:00 to 10 am

Keynote Lecture 3

Chair: Leda Q. Vieira, UFMG, Brazil

Giorgio Trinchieri, Center for Cancer Research, NCI, NIH, Maryland, USA

Targeting the microbiome in cancer immunotherapy

06/10 – 9:00 to 10 am

Bei Shizhang Keynote Lecture 4

Chair: Pingsheng Liu, Institute of Biophysics, Chinese Academy of Sciences

Tao Xu, Institute of Biophysics, Chinese Academy of Sciences, China

Cryogenic superresolution correlative light and electron microscopy on the frontier of subcellular imaging

06/10 – 1:15 to 2:15 pm

Keynote Lecture 5

Chair: Koby Levy, Weizmann Institute, Israel

Michael Levitt, Stanford University, USA

Lessons from 620 Days Studying Covid-19

07/10 – 9:00 to 10 am

Keynote Lecture 6

Chair: Maurício da Silva Baptista, IQ-USP, Brazil

Ohara Augusto, University of São Paulo Brazil

Carbon dioxide redox metabolites in eustress and oxidative distress

07/10 – 1:15 to 2:15 pm

Keynote Lecture 7

Chair: Daniel Peluffo, UDELAR, Uruguay

Ramon Latorre, University of Valparaiso, Chile

Calcium-driven voltage sensing and the role of charged residues in the voltage sensor domain of BK channels

08/10 – 9:00 to 10 am

Keynote Lecture 8

Chair: Rosangela Itri, IF-USP, Brazil

Angela Gronenborn, University of Pittsburgh, USA

The awesome power of Fluorine NMR

08/10 – 12:30 to 1:00 pm

IUPAB Award Keynote Lecture 9

Chair: John Baenziger, University of Ottawa, Canada

Yoav Shechtman, Technion, Haifa, Israel

Next generation localization microscopy - or - how and why to ruin a perfectly good microscope

08/10 – 1:00 to 2:00 pm

IUPAB Award Keynote Lecture 10

Chair: Juan Carmelo Gómez Fernandez, Universidad de Murcia, Spain

Anthony Watts, University of Oxford, UK

Lipids are important: Avanti/IUPAB Award lecture

symposia

October 4th – 10:45 am to 12:45 pm

Room 1

SP-01. Drug design and delivery

Chair: **Joke Bouwstra** (Leiden University, The Netherlands)

Speakers:

Peter Swaan, University of Maryland, USA

Targeting Membrane Transporters for Oral Drug Delivery

Silvia Alonso, Universidad de Quilmes, Argentina

Polymer-Based Nanoparticles: Fabrication and Health Applications

Joke Bouwstra, Leiden University, The Netherlands

Microneedles and nanoparticles for dermal vaccination

Adriana R. Pohlmann, Universidade Federal do Rio Grande do Sul, Brazil

Interfacial reactions in water to functionalize the surface of polymeric nanocapsules intended for drug targeting

October 4th – 10:45 am to 12:45 pm

Room 2

SP-02. Protein Structure Dynamics and Functions

Chair: **Richard C. Garrat** (IFSC-USP)

Speakers:

Frances Separovic, University of Melbourne, Australia

Structure determination of antimicrobial peptides in live bacteria

Marius Schmidt, University of Wisconsin

Time-Resolved Crystallography at X-ray Free Electron Lasers

Bonnie A. Wallace, University of London, UK

Structure, Function, and Dynamics of Voltage-Gated Sodium Channels and their Complexes with Drug

Andrea Dessen, LNBio, Campinas and IBS, Grenoble, France

Structural snapshots of bacterial cell wall biosynthesis

October 4th – 10:45 am to 12:45 pm
Room 3

SP-03) Biological Photosensors and their Applications in Optogenetics

Chair: **Silvia Braslavsky**, MPI, Germany

Speakers:

Masahide Terazima, Kiyoto University, Japan

Time-resolved detection of association/dissociation reaction and conformation changes of photosensor proteins towards applications in Optogenetics

Andrew Woolley, University of Toronto

Light switchable protein engineering with photoactive yellow protein

Matias Zurbriggen, University of Dusseldorf, Germany

Optogenetic control of biological processes: from photoreceptor engineering to their implementation in microbial, animal and plant systems

Leonardo Vinicius Monteiro de Assis, University of Lübeck, Germany

An overview of the photosensitive system of the skin, a novel therapeutic target?

October 4th – 2:45 to 4:45 pm
Room 1

SP-04. Macromolecular Machines and Switching Devices

Chair: **Alejandro Buschiazso**, Inst Pasteur, Montevideo, Uruguay

Speakers:

Axel Brunger, Stanford University, USA

Molecular Mechanisms of Neuronal Exocytosis

Charles Sindelar, Yale University, USA

Honing in on motile filamentous assemblies by cryo-EM

Alejandro Buschiazso, Institut Pasteur Montevideo, Uruguay

Watching bacterial sensors as they move: pliable proteins that transmit signals

Alessandra Del Giudice, Sapienza University of Rome, Italy

Regulation of the photosynthetic AB-GAPDH via self-assembly

Leticia Irene Llarrull, Universidad de Rosario, Argentina

Functional characterization of β -lactam sensor proteins in Staphylococcus aureus

October 4th – 2:45 to 4:45 pm

Room 2

SP-05) Chemical Biology

Chair: **Randall Peterson** (University of Utah)

Speakers:

Sara Sattin, University of Milan, Italy

Probing bacterial survival strategies: inhibitors of (p)ppGpp synthesis

Frederico Gueiros, USP, Brazil

Many birds with one stone: targeting a universal signaling pathway of bacteria to improve antimicrobial therapy

Randall Peterson, University of Utah, USA

Chemo-Optogenetic Probes for Light-Controlled Switching of Ion Channel Activity

Mariana Chaves Micheletto, Faculdade de Filosofia, Ciências e Letras de Ribeirão Preto, USP, Brazil

Interaction of genetically encoded photosensitizers with scintillating nanoparticles for X-PDT

Isaac de Araujo Matos, Universidade de São Paulo, Brazil

Discovery of Nanomolar Myeloperoxidase Inhibitors with Anti-Arthritis Properties: A Computational, in vitro and in vivo study

October 4th – 2:45 to 4:45 pm

Room 3

SP-06. 24th Prize for Young Talent in Life Sciences

Chair: **Juliana Fietto**, UFV Brazil

Bruna Alice Gomes de Melo, UNIFESP, Brazil

3D Bioprinting Neurogenic Niches aiming the Biofabrication of In Vitro Models to Study Neurodegenerative Diseases and Treatments

Carolina Manganeli Polonio, USP, SP, Brazil

Evaluation of the microRNAs in the immunopathogenesis of microcephaly caused by ZIKV

Célio Junior da Costa Fernandes, Unesp Botucatu, Brazil

Vascular smooth muscle cells drive osteoblast-to-osteocyte transition via β -catenin signaling through exosome communication

Marlon Henrique e Silva Cardoso, Universidade Católica Dom Bosco, DF, Brazil

An N-capping asparagine-lysine-proline (NKP) motif contributes to a hybrid flexible/stable multifunctional peptide scaffold

Robson Tramontina, University of Campinas, Brazil

Integrated production high-value aromatic alcohols directly from lignocellulosic biomass

October 5th - 6:30 to 8:30 am
Room1

Biophysical Reviews Journal

Damien Hall - (Editor)
Meran Lloyd-Owen (Japan)
Joshua Ho (Hong Kong China)
Kuniaki Nagayama (Japan)
N. Jaganatthan (India)
German Rivas (Spain)
Steven Harding (UK)
Rosangela Itri (Brazil)
Wilma Olson (USA)

October 5th - 10:15 am to 12:15 am
Room 1

SP-07) Deforming membranes

Chair: **Patricia Basserau**, Institut Curie (France)

Speakers:

Michael Kozlov, Tel Aviv University, Israel
Mechanism of shaping membrane nanostructures of Endoplasmic Reticulum

Rumiana Dimova, Max Planck, Germany
To bud or not to bud: remodeling of artificial cells

Paul A Janmey, Univ. of Pennsylvania, USA
Control of actin assembly at the cell membrane by phosphatidylinositol 4,5 bisphosphate

Luís Guilherme Mansor Basso, UENF, RJ
Lipid bilayer membrane as a possible target for inhibition of the SARS-CoV-2 Spike-mediated membrane fusion process

Clara Malizia Leal Ferreira da Motta, UFRJ, RJ
The SARS-CoV-2 nucleocapsid protein N-terminal domain phase separation is triggered by the serine-rich region and modulated by TRS binding

October 5th - 10:15 am to 12:15 am

Room 2

SP-08. Systems biology and biomarkers for human disorders

Chair: **Peter Nilsson** (KTH Royal Institute of Technology, Stockholm)

Speakers:

Hiroki Ueda, RIKEN Center for Biosystems Dynamics Research, Japan
Systems Biology of Mammalian and Human Sleep/Wake Cycles ~Phosphorylation Hypothesis of Sleep~

Daniel Martins de Souza, Unicamp, São Paulo, Brazil
The effects of COVID-19 in the human brain

Peter Nilsson, KTH Royal Institute of Technology, Stockholm, Sweden
Development and utilization of a highly specific and sensitive multiplex serological COVID-19 assay

Bianca Cruz Pachane, Universidade Federal de São Carlos, Brazil
Invasive behaviour of breast cancer cells as a response to hypoxic signalling via extracellular vesicles

Augusto Frantz Uberti, Pontifícia Universidade Católica do Rio Grande do Sul, Brazil
Urease of Helicobacter pylori: role in neuroinflammation

October 5th - 10:15 am to 12:15 am

Room 4

SP-09) Metabolism and Bioenergetics

Chair: **Alicia J. Kowaltowski**, USP, Brazil

Speakers:

Antonio Zorzano, IRB Barcelona, Spain
Mitochondrial fusion proteins and their role in metabolic disorders.

Marcos Chiaratti, UFSCAR, Brazil
A role for mitofusins in oocyte development: impact on fertility and offspring viability

Valentina Parra, University of Chile, Chile
Systems Biology Approach of the Down Syndrome Critical Region 1 gene, RCAN1: implications in mitochondrial biology, cellular proliferation, and differentiation

Caroline Simões Pereira, University of São Paulo, Brazil
Mechanism of rotenone inhibition of respiratory complex I

October 5th - 1:00 to 3:00 pm

E-poster Session

(PS-01 Odd-numbered panels)

The presenters are expected to be logged in the platform during their respective poster section and interact with the audience using a chat interface (typing only).

October 5th - 3 to 5 pm

Room 1

SP-10. Biophotonics

Chairs: **Georg Wondrak** and **Martha S. Ribeiro**

Speakers:

Martha S. Ribeiro, USP, Brazil

Light-based non-thermal therapy: from basis to clinical applications

Georg Wondrak, University of Arizona, USA

The water-isotopologue deuterium oxide (D₂O; 'heavy' water): From biophysical properties to experimental cancer therapeutic

Martina Meinke, University of Berlin, Germany

Wavelength, dose skin type and skin model related radical formation in skin

Tania Mateus Yoshimura, Nuclear and Energy Research Institute, Brazil

Low power light triggers opposite effects on stem cells: influence of the wavelength and culture conditions

Matheus del Valle, Centro de Lasers e Aplicações, IPEN, SP

Breast tissue diagnosis using artificial intelligence applied to FTIR spectroscopy images

October 5th - 3 to 5 pm

Room 2

SP-11. Microbiomes: human and environmental

Chair: **Leda Quercia Vieira** - UFMG, Brazil

Speakers:

Lars Engstrand, Karolinska Institutet, Sweden

Studies of the human microbiome in health and disease

João C. Setubal, IQ-USP, Brazil

Metagenome-assembled genomes and their contribution to microbiome studies

Emmanuel Dias Neto, AC Camargo Center, Brazil

Microbiome studies of the built environment: from commensals, to cancer & COVID-19

Jumpei Yamagishi, The University of Tokyo, Japan

Microbial Potlatch: The advantage of leakage of essential metabolites and resultant symbiosis of diverse species

Ivan Rosa e Silva, Queen Mary University of London, UK

Molecular mechanisms underlying the role of the centriolar CEP164-TTBK2 complex in human ciliopathies

October 5th - 3 to 5 pm

Room 3

SP-12. Molecular and Cell Imaging

Chair: **Paulo Bisch** (UFRJ)

Speakers:

Fernando Stefani, University Buenos Aires, Argentina

Far-field fluorescence nanoscopy with sub-10 nm resolution

Enrico Gratton, University of California, USA

Single cell physiological characterization in living tissue. Determination of cell fate

Marco Capitanio, LENS, University of Florence, Italy

Alpha-catenin forms a cooperative and asymmetric catch bond with F-actin to regulate cell junction fluidity

Sara Anselmo, University of Palermo, Italy

Advanced fluorescence microscopy techniques to study the interaction of amphiphilic peptides with model membranes

Fabiana Avila Carneiro, Universidade Federal do Rio de Janeiro, Brazil

Study of SARS-CoV-2 morphogenesis and interaction with the cell by transmission and high-resolution scanning electron microscopy

October 5th – 5:30 to 7:00 pm

50 Anos da Pós Graduação em Bioquímica da FMRP-USP

Chair: Vitor M. Faça

Graduate Program in Biochemistry - FMRP - USP: 50 years of history and achievement
Prof. **Vitor Marcel Faça**

Proteoliposomes as a mimic model of matrix vesicles and bone mineralization
Prof. **Pietro Ciancaglini**

Deletion of AA9 lytic polysaccharide monoxygenases impairs fungal growth on lignocellulose
Prof. **André Damasio**

Unraveling the neurotropic potential of the emergent viruses Oropouche and SARS-CoV-2 using adult human brain slice cultures
Glaucia Almeida

Glucocorticoids decrease the thermogenic capacity and increase the triacylglycerol synthesis by glycerokinase activation in brown adipose tissue of rats
Ana Paula De Assis

Effects of NT157 on tyrosine kinase signaling pathways in BCR-ABL1 T315I cells
Virginia Campos Silvestrini

October 6th – 10:15 to 12:15 pm

Room 1

SP-13. Ionic channels and membrane transporters

Chair: **John Baenziger**, University of Ottawa, Canada

Speakers:

Francisco Bezanilla, University of Chicago, USA

Sensing voltage and opening of ion channels

Alexander I. Sobolevsky, Columbia University, USA

Structural mechanism of heat-induced opening of a temperature-sensitive TRP channel

Renaë Ryan, University of Sydney, Australia

Glutamate transporters contain a conserved chloride channel with two hydrophobic gates

John Baenziger, University of Ottawa, Canada

Conformational transitions and ligand-binding to a lipid-sensitive muscle-type acetylcholine receptor

October 6th – 10:15 to 12:15 pm

Room 2

SP-14) Biomolecular association and dynamics

Chair: **Paul Whitford**, Northeastern University College of Science (USA)

Speakers:

Andrei Korostelev, University of Massachusetts, USA

Time-resolved cryo-EM visualizes the structural dynamics of translation

Hue Sun Chan, University of Toronto, Canada)

Theory of Protein Phase Separation in Biomolecular Condensates

Pablo I.D. Dans Puiggros, Uruguay

40 Years Learning from the Sequence-Dependent Mechanical Properties of B-DNA

Koby Levy, Weizmann Institute, Israel

Diffusion of proteins along biopolymers: from biophysics to function

October 6th – 10:15 to 12:15 pm
Room 3

SP-15. Gender in Science

Chair: **Maria Cristina Nonato**, FFCLRP-USP, Brazil and **David Crossman**, New Zealand, University of Auckland

Carla Mattos, Northeastern University, USA

Frances Separovic, University of Melbourne, Australia

Lauren Arendse, University of Cape Town, South Africa

Milagros Medina, University of Zaragoza, Spain

Pimchai Chaiyen, Institute of Science and Technology (VISTEC), Thailand

PICTURE A SCIENTIST

YEAR 2020 | RUN TIME 97 mins | LANGUAGE English

<https://www.pictureascientist.com/>

DIRECTED BY IAN CHENEY and SHARON SHATTUCK

PRODUCED BY MANETTE POTTLE, IAN CHENEY, and SHARON SHATTUCK

SYNOPSIS

PICTURE A SCIENTIST is a feature-length documentary film chronicling the groundswell of researchers who are writing a new chapter for women scientists. A biologist, a chemist and a geologist lead viewers on a journey deep into their own experiences in the sciences, overcoming brutal harassment, institutional discrimination, and years of subtle slights to revolutionize the culture of science. From cramped laboratories to spectacular field stations, we also encounter scientific luminaries who provide new perspectives on how to make science itself more diverse, equitable, and open to all.

We have 200 viewings available that are sponsored by IUPAB. The viewings are part of the “Gender in Science”

The movie will be available online for 72 hours from 10:00 am the 5th of October São Paulo, Brazil time. We will send applicants the link for viewing on Monday the 4th of October.

Please note this event is for everyone and we would like to encourage both male and female colleagues to attend

October 6th – 2:30 to 3:30 pm

Exhibitor Presentation – 1 - Cytiva

Purifying samples for cryo-EM preps

Technical improvements related to cryogenic electron microscopy (cryo-EM) have triggered a revolution in structural biology and made single-particle cryo-EM the dominant discipline for determining structures. Cryo-EM has opened new opportunities to determine large and complex molecules, but has also introduced new challenges for purification of samples.

Speakers:

Lotta Hedkvist, Global Product Manager, Cytiva

Veronica Fridh, Global Product Manager for Biacore systems, Cytiva

Emma Lind, Global Product Manager for resins, Cytiva

Q&A Session:

Melissa Armelini, Product Specialist, Cytiva

Rafael Santos, Product Specialist, Cytiva

October 6th – 2:30 to 4:30 pm

Room 2

Exhibitor Presentation – 2 and 5 – DAAD & DFG

2:30 pm: Introduction (5 min.)

2:35 pm: Testimonials

Prof. Dr. Werner Mäntele (20 min.)

Prof. Dr. Matias Zurbriggen (20 min.)

Prof. Dr. Rumiana Dimova (15 min.)

3:30 pm: Exchange and Fellowship Programs of the German Academic Exchange Service (DAAD)

3:45 pm: Funding Programmes of the German Research Foundation (DFG)

4:00 pm: Q&A and networking

4:25 pm: Closing Remarks

October 6th – 3:30 to 4:30 pm

Room 1

Exhibitor Presentation – 4 – Thermo Fisher Scientific

Recombinant Protein Cloning: New Frontiers

Helder Teixeira de Freitas, Brazil - Product Specialist (Molecular biology and Sample prep)

October 6th – 4:30 to 5:30 pm

Room 2

Exhibitor Presentation – 8 – Sartorius

Application of Octet BLI-Technology for Characterization and Life Cycle Management of Critical Reagents for Development of Contemporary Biotherapeutics

Ronald Bowsher, Ph.D. – CSO & Partner B2S Life Sciences

Alyssa Cieslak – Scientist II Custom Reagents

Q&A and networking

Ronald Bowsher, Ph.D. – CSO & Partner B2S Life Sciences

Alyssa Cieslak – Scientist II Custom Reagents

Sanofar J. Abdeen, Ph.D. – Associate Director Custom Reagents

October 7th – 10:15 am to 12:15 pm

Room 1

SP-16. Protein Folding Misfolding and Unfolding

Chair: **Vladimir Uversky** (University of South Florida, USA)

Speakers:

Prakash Kulkarni, City of Hope National medical Center, USA.

Protein conformational dynamics and phenotypic switching

Gonzalo de Prat-Gay, Protein Structure-Function and Engineering Lab., Fundación Instituto Leloir and IIBBA-CONICET

Liquid-liquid phase separation and assembly of viral factories: molten globule does the trick

Orkid Coskuner-Weber, Turkish-German University, Molecular Biotechnology
Turkey

In Vivo Effects in Alzheimer's and Parkinson's Diseases: A Computational Biophysicists Perspective

Alexander V. Fonin, Russia

The new view of PML-bodies formation

October 7th – 10:15 am to 12:15 pm

Room 2

SP-17) EBSA Symposium on "Translational Biophysics"

Chairs: **Anthony Watts** and **Jesús Pérez-Gil**

Speakers:

Amitabda Chattopadhyay, Centre for Cellular & Mol Biology, Hyderabad, India

Cholesterol-dependent Oligomerization and Endocytosis of GPCRs: Novel Insights in Therapeutics

Anthony Wilkinson, York University, UK

Drug Discovery in Parasitic and Viral Diseases Using Protein Lipidation as a Target

Peter Pohl, Vienna University, Austria

Water transport through membrane channels

Jesus Pérez-Gil, President of EBSA, Universidad Complutense, Madrid, Spain

Interfacial Biophysics to Restore the Respiratory Surface under Breathing Mechanics

October 7th – 10:15 am to 12:15 pm

Room 3

SP-18. Autophagy: mechanisms and applications

Chair: **Marcelo Mori**, Unicamp, São Paulo, Brazil

Speakers:

Maho Hamasaki, Osaka University, Japan

Chemical activation of LC3 conjugation system uncover the new insight of LC3 lipidation site.

Julio C.B. Ferreira, USP, Brazil

Targeting autophagy in skeletal muscle diseases

Louis R. Lapierre, Brown University, USA

Location, location, location: Autophagy proteins interact with organelles to modulate lifespan.

Nektarios Tavernarakis, Institute of Molecular Biology and Biotechnology, Greece

Autophagic pathways in neuronal physiology and pathology during ageing

October 7th – 2:30 to 4:30 pm

Room 1

SP-19. Membrane Simulations

Chair: **Mikko Karttunen** (Canada)

Speakers:

Peter Tieleman, University of Calgary, Canada

Insights in lipid-protein interactions from computer simulations

Mikko Karttunen, Western University, Canada

Nanocellulose-membrane contacts, insights from Molecular Dynamics simulation

Syma Khalid, University of Oxford, UK

Computational assays of bacterial cell envelopes: doing microbiology with computers

Thereza Amelia Soares da Silva, UFPE, Brazil

SuAVE (Surface Assessment via Grid Evaluation) for Every Surface Curvature and Every Cavity Shape

October 7th – 2:30 to 4:30 pm

Room 2

SP-20. Systems Biologics: At the interfaces of engineered proteins, their cell surface receptors and cellular molecular networks

Chair: **Stephen Michnick** (Canada)

Speakers

Sachdev Sidhu, University of Toronto, Canada

Systems Biologics: Large-Scale Engineering of Modulators of Protein Networks

Madan Babu, St. Jude Children's Research Hospital

Variation in GPCR signaling: Implications for drug discovery

Emerson Rodrigo Da Silva, Universidade Federal de São Paulo, Brazil

Biophysics of peptiplexes based on cell penetrating peptides

Stephen Michnick, University of Montreal, Canada

Changes of Cell Biochemical Network States Revealed in Protein Homomeric Complex Dynamics

October 7th – 2:30 to 4:30 pm

Room 3

SP-21) IUBMB Symposium: Science Education

Chair: **Manuel João Costa**, University of Minho, Portugal

Speakers:

Erin Dolan, University of Georgia, USA

Course-based undergraduate research experiences: what if the treatment is a CURE?

Luciane V. Mello, University of Liverpool, UK

Reflecting and evidencing transferable skills

Manuel João Costa, University of Minho, Portugal

Evidence-based post-pandemic biochemistry and molecular biology education: redesigning courses to enhance the student and teacher experiences

Vera Maria Treis Trindade, Universidade Federal do Rio Grande do Sul, Brazil

Biokimi App: Interactive Study of Hepatic Glycolysis and Gluconeogenesis Regulations

October 7th – 4:30 to 6:30 pm

E-poster Session

(PS-02 Even-numbered panels)

The presenters are expected to be logged in the platform during their respective poster section and interact with the audience using a chat interface (typing only).

October 8th –10:15 am to 12:15 pm

Room 1

SP-22) Scissioning membranes

Chair: **Rumiana Dimova**, Max Planck, Germany

Speakers:

Jeanne Stachowiak, Univ of Texas, Austin, USA

Intrinsically disordered proteins organize and shape cellular membranes

Patricia Basserau, Institut Curie, France

ESCRT-III complexes assembling on membranes

Markus Deserno, Carnegie Mellon University, USA

The role of scaffold reshaping and disassembly in dynamin driven membrane fission

Ernesto Ambroggio, Universidad de Cordoba, Argentina

The interaction of Dengue and Zika capsids with oligonucleotides and membranes generate liquid-liquid phase separations.

October 8th –10:15 am to 12:15 pm

Room 2

SP-23. Redox Biology

Chair: **Rafael Radi**, UDELAR, Uruguay

Speakers:

Rafael Radi, UDELAR, Uruguay

Mitochondrial formation, catabolism and toxicity of peroxynitrite

Kostas Tokatlidis, University of Glasgow, UK

Redox control of mitochondria biogenesis as a cellular stress response mechanism

Luis E.S. Netto, USP, Brazil

Mechanisms of peroxiredoxins targeting to mitochondrial subcompartments

Valdecir Farias Ximenes, Universidade Estadual Paulista, Brazil

Experimental Studies and Computational Modeling on Cytochrome C Reduction by Quercetin: the role of oxidability and binding affinity

Mariana Juliani do Amaral, Universidade Federal do Rio de Janeiro, Brazil

The antioxidant role of the prion protein explained by copper storage in liquid condensates

October 8th –10:15 am to 12:15 pm

Room 3

SP-24) Biophysics of immune system

Chair: **Jean-Marie Ruyschaert**, Université Livres de Bruxelles, Belgium

Speakers:

Nicholas J. Gay, University of Cambridge, UK

Structure and dynamics of signalling complexes in the innate immune response and inflammation.

Jean-Marie Ruyschaert, Université Livres de Bruxelles, Belgium

New activators of the innate system: from assembled lipids to amyloids

Roman Jerala, National Institute of Chemistry, Slovenia

Design of mammalian cell regulatory circuits

Georgina Herrera, Universidad de Buenos Aires, Argentina

Gliadin proteolytical resistant peptides: the interplay between structure and self-assembly in gluten-related disorders

Malvina Pizzuto, Universidad de Murcia, Spain

Mechanistic basis of immune response modulation by cardiolipin, a matter of double bonds"

October 8th, 2021 - 2:00-2:30 pm

Closing Ceremony and Awards

The announcement of Awards for poster presentations and 24th Prize for Young Talent in Life Sciences