



XLV ANNUAL MEETING

Chilean Society for Biochemistry
and Molecular Biology

2022

Program

Conferences

Opening conference:

“Running from the law: how to evade the genome sentinel Rho during stress” - **Irina Arstimovitch**, *Department of Microbiology and The Center for RNA Biology, The Ohio State University, Columbus, Ohio, USA*

Osvaldo Cori Conference:

“Epigenetic control of gene transcription during cell lineage commitment” - **Martín Montecino**, *Institute of Biomedical Sciences and Millennium Institute Center for Genome Regulation CRG, Faculty of Medicine and Faculty of Life Sciences, Universidad Andres Bello, Santiago, Chile*

Severo Ochoa Conference:

“Cell senescence in development, regeneration and cancer” - **Manuel Collado Rodríguez**, *Laboratory of Cell Senescence, Cancer and Aging, Health Research Institute of Santiago de Compostela, IDIS, Santiago de Compostela, Spain*



XLV ANNUAL MEETING

Chilean Society for Biochemistry
and Molecular Biology

2022

Program

Symposia

Symposium “Plant Defense”

Chair: Lorena Pizarro, Universidad de O'Higgins,
San Fernando, Chile

1. “Uncovering new roles for cytokinin in plant immunity”

Maya Bar, *Department of Plant Pathology and Weed Research, Plant Protection Institute, Agricultural Research Organization, Volcani Institute, Rishon LeZion, Israel*

2. “Incidence of bacterial canker in sweet cherry orchards of the O'Higgins Region of Chile: Varietal susceptibility and genetic characteristics of the causal agent”-

Boris Sagredo, *Centro Regional Rayentué, Instituto de Investigaciones Agropecuarias (INIA), Rengo, Chile*

3. “Identification of defense-responsive genes in sweet cherry against Pss strains with different virulence levels”-

Alan Zamorano, *Laboratorio de Fitovirología, Departamento de Sanidad Vegetal, Facultad de Ciencias Agronómicas, Universidad de Chile, Santiago, Chile*

4. “Involvement of the cell wall and its dynamic in plant defense against aphids”- **María Francisca Blanco-Herrera**,
Centro de Biotecnología Vegetal, Facultad de Ciencias de la Vida, Universidad Andres Bello, Santiago, Chile



XLV ANNUAL MEETING

**Chilean Society for Biochemistry
and Molecular Biology**

2022

Program

Symposia

Symposium “Unveiling the complex world of RNA”

Chair: Marcelo López-Lastra, Pontificia Universidad Católica de Chile, Santiago, Chile

1. “Evaluation of the impact of m6A methylation on RNA structure”- **Bruno Sargueil**, *Université Paris Cité, CNRS, Paris, France*

2. “Modified RNAs as Molecular Tools for Structural and Functional Studies of aminoacyl transferases and methyltransferases enzymes”- **Mélanie Etheve-Quelquejeu**, *Laboratoire de Chimie et Biochimie Pharmacologiques et Toxicologiques, Université Paris Cité, Paris, France*

3. “Mechanochemistry of the HIV-1 reverse transcriptase on an RNA substrate, one molecule at a time”- **Andrés Bustamante**, *Laboratorio de Virología Molecular y Celular, Instituto de Ciencias Biomédicas, Facultad de Medicina, Universidad de Chile, Santiago, Chile*

4. “Regulation of retroviral non-canonical messenger RNA translation by RNA-binding proteins”- **Marcelo López-Lastra**, *Laboratorio de Virología Molecular, Departamento de Enfermedades Infecciosas e Inmunología Pediátrica, Escuela de Medicina, Pontificia Universidad Católica de Chile, Santiago, Chile*



XLV ANNUAL MEETING

Chilean Society for Biochemistry
and Molecular Biology

2022

Program

Symposia

Symposium “DNA viruses and cancer: signaling pathways involved in cancer progression”

Chair: Francisco Aguayo, Universidad de Chile,
Santiago, Chile

1. “Molecular pathways altered by early expressed proteins from Human Papillomavirus” - Marcela Lizano Soberón, *Unit of Biomedical Research in Cancer, Intituto Nacional de Cancerología and Biomedical Research Institute, Universidad Nacional Autónoma de México*

2. “Regulation of extracellular matrix components during human papillomaviruses mediated carcinogenesis” - Enrique Boccardo Pierulivo, *Laboratory of Oncovirology, Department of Microbiology, Instituto de Ciencias Biomédicas, Universidade de São Paulo, São Paulo, Brazil*

3. “High-risk human papillomavirus (HR-HPV) and Epstein Barr virus (EBV) co-presence in oral cancer” - Julio Cesar Osorio Patiño, *Universidad del Valle, Cali, Colombia*

4. “Crosstalk between persistent viruses and tobacco smoke in carcinogenesis” - Francisco Aguayo González, *Laboratory of Oncovirology, Virology Program, Institute of Biomedical Sciences, Faculty of Medicine, Universidad de Chile, Santiago, Chile*



XLV ANNUAL MEETING

Chilean Society for Biochemistry
and Molecular Biology

2022

Program

Symposia

Symposium “Yeast functional genomics”

Chair: Francisco Salinas, Universidad Austral de Chile,
Valdivia, Chile

- 1. “The fitness landscape of telomere variation”- Gianni Liti,** *Université Côte d'Azur, CNRS, INSERM, IRCAN Nice, France*
- 2. “Deciphering the molecular bases of wort adaptation in novel lager yeast hybrids”- Jennifer Molinet,** *Laboratorio de Genética Molecular, Departamento de Biología, Facultad de Química y Biología, Universidad de Santiago de Chile, Santiago, Chile*
- 3. “A cohesive panel of 142 telomere-to-telomere genome assemblies unfolds the structural genetic diversity at the species-scale in *Saccharomyces cerevisiae*”- Gilles Fischer,** *Sorbonne Université, Francia*
- 4. “The metabolic and genomic making of yeast biodiversity”- Chris Todd Hittinger,** *Laboratory of Genetics, DOE Great Lakes Bioenergy Research Center, Center for Genomic Science Innovation, J. F. Crow Institute for the Study of Evolution, Wisconsin Energy Institute, University of Wisconsin-Madison, Madison, WI, USA*



XLV ANNUAL MEETING

Chilean Society for Biochemistry
and Molecular Biology

2022

Program

Symposia

Symposium “Chaos, panic and (dis)order in protein evolution”

Chair: César A. Ramírez-Sarmiento & Pablo Galaz-Davison, Pontificia Universidad Católica de Chile, Santiago, Chile

- 1. “Computational approaches to study protein-protein interactions regulating the expression and function of membrane proteins”** - **Ariela Vergara**, *Center for Bioinformatics, Simulation and Modeling, Faculty of Engineering, Universidad de Talca, Talca, Chile*
- 2. “Alpaca-derived nanobody against viral infections”** - **Naphak Modhiran**, *School of Chemistry and Molecular Biosciences, University of Queensland; Australian Institute for Bioengineering and Nanotechnology; Brisbane, Australia*
- 3. “Metamorphic proteins don’t just wiggle wiggle, they (re)fold”** - **César A. Ramírez-Sarmiento**, *Institute for Biological and Medical Engineering (IIBM), Pontificia Universidad Católica de Chile, Santiago, Chile*
- 4. “Conformational sampling with AlphaFold2 by phylogenetic amnesia”** - **Matías R. Machado**, *Protein Engineering Unit, Institut Pasteur de Montevideo, Montevideo, Uruguay*
- 5. “FrustraEvo: Assessing protein families divergence in the light of sequence and energetic constraints”** - **María Inés Freiburger**, *Protein Physiology Lab, Departamento de Química Biológica, Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires-CONICET-IQUIBICEN, Buenos Aires, Argentina*



XLV ANNUAL MEETING

Chilean Society for Biochemistry
and Molecular Biology

2022

Program

Symposia

Symposium “New insights in non-coding RNAs in prokaryotic and eukaryotic cells”

Chair: Valentina Parra, Universidad de Chile, Santiago, Chile; Mauricio Latorre, Universidad de O'Higgins, Rancagua, Chile

1. “Computational tools for identifying and characterizing non-coding RNAs in prokaryotic and eukaryotic organisms”

- **Raúl Arias-Carrasco**, *Programa Institucional de Fomento a la Investigación, Desarrollo e Innovación (PIDi), Universidad Tecnológica Metropolitana, Santiago, Chile*

2. “Non-coding RNA global transcriptional regulatory network activated by iron in *Enterococcus faecalis*” - **Victor**

Aliaga-Tobar, *Bioengineering Laboratory, Institute of Engineering Sciences, Universidad de O'Higgins, Rancagua, Chile*

3. “Studying the non-coding transcriptome of endocrine pancreatic cells from zebrafish” - **Estefanía Tarifeño-Saldivia**,

Gene Expression and Regulation laboratory (GEaRLab), Departamento de Bioquímica y Biología Molecular, Facultad de Ciencias Biológicas, Universidad de Concepción, Chile

4. “RNA at the Epicenter of Genetic Information: from epigenetic to epitranscriptomic regulation in development and cancer” - **Paulo P. Amaral**, *Insper Institute of Education and Research, Brazil*



XLV ANNUAL MEETING

Chilean Society for Biochemistry
and Molecular Biology

2022

Program

New members session

“Mitochondrial Ca^{2+} overload in the neurodegeneration associated with early-onset familial Alzheimer’s disease”

Marioly Müller, *Departamento de Tecnología Médica, Facultad de Medicina, Universidad de Chile, Santiago, Chile*

“Epigenetics effects of obesity in the neurons that regulate feeding behavior” - **Estefanía Tarifeño-Saldivia**, *Departamento de Bioquímica y Biología Molecular, Facultad de Ciencias Biológicas, Universidad de Concepción, Concepción, Chile*

Departamento de Bioquímica y Biología Molecular, Facultad de Ciencias Biológicas, Universidad de Concepción, Concepción, Chile

“SYSTEMIX: Systems biology center for the study of extremophile communities from mining tailings” - **Mauricio**

Latorre, *Universidad de O'Higgins, Rancagua, Chile*

“Evolution of enzyme regulation and the mechanistic drift hypothesis: The case of the activation by AMP in archaeal ADP-dependent Sugar Kinases” - **Gabriel Vallejos-Baccelliere**,

Laboratorio de Bioquímica y Biología Molecular, Departamento de Biología, Facultad de Ciencias, Universidad de Chile, Santiago, Chile