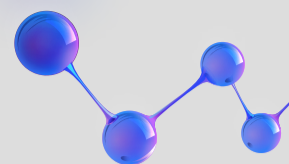


# I INTERNATIONAL WORKSHOP <sup>2021</sup>

ON APPLIED CELLULAR AND  
MOLECULAR BIOLOGY

November  
25th – 26th

STREAMING BY 



## Workshop Programme

### Day 1

Thursday, 25 November 2021  
Morning

09:00 – 09:15

#### Welcoming and Opening Ceremony Institutional Welcoming

**Dr. Rodrigo Navia Diez**, Vicerrector for Research and Postgraduate Studies, VRIP, Universidad de La Frontera, Temuco, Chile.

**Dr. Marjorie Reyes Díaz**, Organizing Committee, Universidad de La Frontera, Temuco, Chile.

#### Opening Conference

09:15 – 09:50

#### **Dr. Vinicius Maracaja-Coutinho, Universidad de Chile, Chile**

Solving real-life problems through Genomics and Bioinformatics.

#### Symposium I. Biotechnology of Bioresources

Co-chairs: Dr. Marjorie Reyes Díaz & Dr. León Bravo Ramírez

09:50 – 10:25

#### **Dr. Adriano Nunes Nesi, Departamento de Biologia Vegetal, Universidade Federal de Viçosa, Brazil.**

The Role of Mitochondrial Metabolism in Plant Stress Responses.

10:25 – 10:50

#### **Dr. Laura Bertini, Department of Ecological and Biological Sciences, University of Tuscia, Italy.**

Small temperature changes act as drivers for metabolic reprogramming of *C. quitensis* plant and associated microbes in the Antarctic scenario.

10:50 – 11:15

#### **Dr. Carolina Padovan, Department of Microbiology and Immunology, Federal University of Alfenas, Brazil.**

Implications of adhesin discovery in the emergent yeast pathogen *Trichosporon asahii*.

11:15 – 11:25

#### Break

#### Symposium I. Biotechnology of Bioresources

Co-chairs: Dr. Cledir Rodrigues-Santos & Dr. Marysol Alvear Zamora

11:25 – 11:45

#### **Dr. Manoel Oliveira, Minister of Health, Brazil**

Molecular diagnosis of sporotrichosis: What methodologies are applied for the identification of species in our Research Group?.

11:45 – 12:05

#### **Dr. Cristian Paz Robles, Departamento de Ciencias Básicas, Universidad de La Frontera, Temuco, Chile.**

Natural and semisynthetic bioactive drimane sesquiterpenoids isolated from *Drimys winteri*.

12:05 – 12:25

#### **Dr. Claudia Sanhueza, Centro de Medicina Traslacional, Universidad de La Frontera, Temuco, Chile.**

Development of a scaffold of PHB from *Paraburkholderia xenovorans* LB400 and gelatin for dermal tissue regeneration.

12:25 – 12:40

#### **Dr. Oلمان Gómez-Espinoza, Centro de Investigación en Biotecnología, Instituto Tecnológico de Costa Rica, Costa Rica.**

*Colobanthus quintesis* under CO<sub>2</sub> limitation: The response of oxalate oxidase and calcium oxalate crystals.

12:40 – 12:55

#### **Dr. Kattia Núñez-Montero, Centro de Investigación en Biotecnología, Instituto Tecnológico de Costa Rica, Costa Rica.**

*Sphingomonas alpina*: A genomic study of psychrotolerant bacterial adaptations to the Antarctic continent.

### Day 1

Thursday, 25 November 2021  
Evening

#### Symposium II. Cellular and Molecular Biology of Reproduction

co-chairs: Dr. Ricardo Felmer Dörner & Dr. Maria Elena Arias Cea

15:00 – 15:30

#### **Dr. Lleretny Rodríguez, Universidad de Concepción, sede Chillán, Chile.**

Embryo derived EVs: from embryo classification to embryo-maternal interaction.

15:30 – 15:50

#### **PhD Student María José Contreras, Universidad de La Frontera, Temuco, Chile.**

Effect of cholestanol and cholesterol-loaded cyclodextrin on stallion sperm physiology and in vitro capacitation after cryopreservation.

15:50 – 16:10

#### **Dr. Luis Águila Paredes, Universidad de La Frontera, Temuco, Chile.**

Haploid androgenetic development of bovine embryos: new insights of their developmental features.

16:10 – 16:30

#### **Dr. Maria Gracia Gervasi, University of Massachusetts-Amherst, Amherst, Massachusetts, USA.**

Effects of sperm incubation conditions on in vitro early embryo development in the mouse.

16:30 – 16:50

#### **Dr. Pamela Uribe Catalán, Universidad de La Frontera, Temuco, Chile.**

Analysis of autophagy in human sperm exposed to oxidative stress.

16:50 – 17:10

#### **PhD Student Cecilia Valencia Robles, Universidad de La Frontera, Temuco, Chile.**

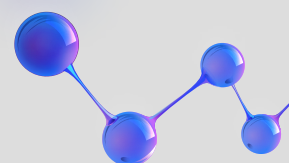
Effect of inhibition of protein synthesis and phosphorylation on bovine oocyte activation and embryonic development.

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## Workshop Programme

Day 2

Friday, 26 November 2021  
Morning

### Symposium III. Cellular and Molecular Biology of Priority Diseases

Co-chairs: Dr. Cledir Rodrigues-Santos, Dr. Jorge Fariás & Dr. Luis A. Salazar

- 09:00 – 09:30** **Dr. Manuel Varas Godoy, Universidad San Sebastián, Santiago, Chile.**  
Chemo-EVs and its contribution in tumor progression.
- 09:30 – 10:00** **Dr. Marcela Hermoso Ramello, Faculty of Medicine, ICBM, Universidad de Chile, Santiago, Chile.**  
IL-33/ST2 mechanisms controlling gut homeostasis that are deregulated in IBD.
- 10:00 – 10:30** **Dr. Gustavo Moraga-Cid, Faculty of Biological Sciences, University of Concepcion, Chile.**  
Glycine receptors as a therapeutic target in chronic pain: Deciphering the molecular determinants controlling, gating, conductance and sensitivity to allosteric modulators.
- 10:30 – 10:45** **PhD Student Luis Vergara Gómez, Universidad de La Frontera, Temuco, Chile.**  
Proteomic signature of gallbladder cancer exosomes: Deciphering its role in tumor progression and as reservoir of circulating biomarkers.
- 10:45 – 11:00** **PhD Student Martin Hödar Salazar, Universidad de La Frontera, Temuco, Chile.**  
Synthesis and Pharmacological Evaluation of Novel Multi-Target Nicotinic Ligands.
- 11:00 – 11:10** **Break**
- 11:10 – 11:25** **PhD Student Alberto Arencibia Núñez, Universidad de La Frontera, Temuco, Chile.**  
Transcriptomic landscape of Vascular Smooth Muscle Cell phenotypic switch.
- 11:25 – 11:40** **PhD Student Lisandra Herrera Belén, Universidad de La Frontera, Temuco, Chile.**  
Design and expression of chimeric L-asparaginase as a potential alternative for the treatment of Acute Lymphoblastic Leukemia.
- 11:40 – 11:55** **PhD Student Claudia Troncoso Muñoz, Universidad de La Frontera, Temuco, Chile.**  
Effect of *Helicobacter pylori* virulence on progranulin gene expression in gastric tissue of dyspeptic patients.
- 11:55 – 12:10** **Mr. Benjamin Durán-Vinet, Universidad de La Frontera, Temuco, Chile.**  
Towards next-generation colorectal cancer diagnosis: cancer exosomes-derived miRNA for CRISPR/Cas13-based detection.
- 12:10 – 12:40** **Dr. Constanza Martínez Cardozo, Pontificia Universidad Católica de Chile, Santiago, Chile.**  
Smoking habit does not affect the biological responses induced by leucocyte and platelet-rich fibrin.

Day 2

Friday, 26 November 2021  
Evening

### Symposium IV. Applied Science: the challenge of linking academy and industry

Co-chairs: Dr. Luis A. Salazar Navarrete & Dr. Carmen Gloria Ili Gangas

- 14:30 – 15:00** **Mg. Franklin Valdebenito Godoy, DITT, Universidad de La Frontera, Temuco, Chile.**  
Trampolín Lab: A University program to foster science-based entrepreneurship.
- 15:00 – 15:20** **Dr. Claudio Lamilla Mardones, Universidad de La Frontera, Temuco, Chile.**  
Low environmental impact and low-cost detergent based on biosurfactants obtained from Antarctic bacteria.
- 15:20 – 15:40** **Dr. Daniela León Garrido, Universidad de La Frontera, Temuco, Chile.**  
Development of a cream for topical use with an improved formulation that ensures greater efficacy of photodynamic therapy in the treatment of non-melanoma skin cancer.
- 15:40 – 16:00** **Dr. Andrés Santos Nanculef, Universitat Autònoma de Barcelona, Barcelona, Spain.**  
Early detection and monitoring of pathogenic microorganisms in the salmon industry.
- 16:00 – 16:10** **Break**

Day 2

Friday, 26 November 2021  
Evening

- 16:10 – 17:30** **Poster Presentation**
- 17:30 – 18:05** **Dr. Gabriela Repetto Lisboa, Centro de Genética y Genómica, Universidad del Desarrollo, Chile.**  
Advancing diagnosis for rare diseases through genomics.
- 18:05** **Dr. Luis Salazar Navarrete, Director of Doctoral Program in Sciences, Major in Applied Cellular and Molecular Biology.**  
Awards posters and Closing Ceremony.