

BIOSSEMBLY 2026 OFFICIAL PROGRAM

JULY 15

09:00 Welcome and opening session

09:20 **Session 1: Bioengineering, Microfluidics & Artificial Intelligence**

Assessment of HeLa Cell Growth and Chemotherapeutic Response Using Microfluidic Devices: Phase I.

Mishell Criollo

Bringing the Sense of Touch to Neuroprosthetic Hands with Bioinspired Artificial Skin.

Robinson Guachi

Application of Machine Learning for the Analysis of Fecal Immune Responses: Challenges and Opportunities.

Lester Gutiérrez

10:20 Coffe Break and networking session



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11:00

Session 2: Molecular Insights, Global Health & Disease Surveillance

mRNA Technology: Principles, Applications and Future Perspectives.

Carlos Villacis

The Strategic Role of Laboratory Sciences and Biotechnology in Pandemic Prevention, Preparedness and Response through a One Health Approach.

Valeria Torres Espin

Fragment-Based Drug Discovery (FBDD).

Fernando Villegas

12:00

LUNCH



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13:00 **Session 3: Recombinant Proteins & mRNA Technologies**

Production of recombinant proteins in mammalian cells.

Erick Bonilla

Recombinant Protein Research and Its Impact on the Study and Treatment of Liver Diseases

Javiera Yáñez

Enhancing RNA Therapeutics: ML-guided lipid nanoparticle optimization & chemically modifying RNA

Isaac Díaz Becdach

14:00 Closing session

14:10 Coffee break and networking session



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JULY 16

09:00 Opening session

09:10 **Session 4: Immunology, Immunopeptidomics &
Extracellular Vesicles**

Maturation and activation of monocytes to macrophages using exosomes derived from naranjilla (*Solanum quitoense* Lam.) and mortiño (*Vaccinium meridionale* Kunth).

Yharome Dassum

Epitopes Discovery Associated with Alloreactive Responses in Chronic Lung Allograft Dysfunction and Idiopathic Pulmonary Fibrosis Using Immunopeptidomics and Genomic Approaches.

Michelle Rojas

Extracellular vesicles derived from *Enterococcus faecalis*: contact-dependent and uptake-independent biogenic immunomodulators

Marlon Gancino



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JULY 16

13:00 **Session 6: Cellular Models, Neurodegeneration & Homeostasis**

Function of Roundabout (Robo) receptors in pancreatic alpha cells affects glucose homeostasis.

Maria del Carmen Mendoza

A cellular model of neurodegeneration based on the neuronal differentiation of CAD cells for studying the mitochondrial localization of SVCT2 and its application against β -amyloid oligomers.

Andrea Vélez

13:45 Genlife Speaker
Special guest

14:00 Awards and Recognitions

14:40 Official Closing Ceremony

15:20 Coffee break and networking session



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JULY 16

10:20 Coffe Break and networking session

11:00 **Session 5: Oncology, Spatial Transcriptomics & Gut
Microbiota**

La microbiota intestinal como biomarcador oncogénico para la predicción temprana del cáncer colorrectal.

Josselyne Briceño Sevilla

Spatial Transcriptomics Reveals Hypoxia-Driven Functional Niches Associated with Chemotherapy Response in High-Grade Serous Ovarian Cancer.

Laís Costa

Exploring Innovative Materials for Breast Cancer Treatment

Kiana Torres Solano de la Sala

12:00 LUNCH



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