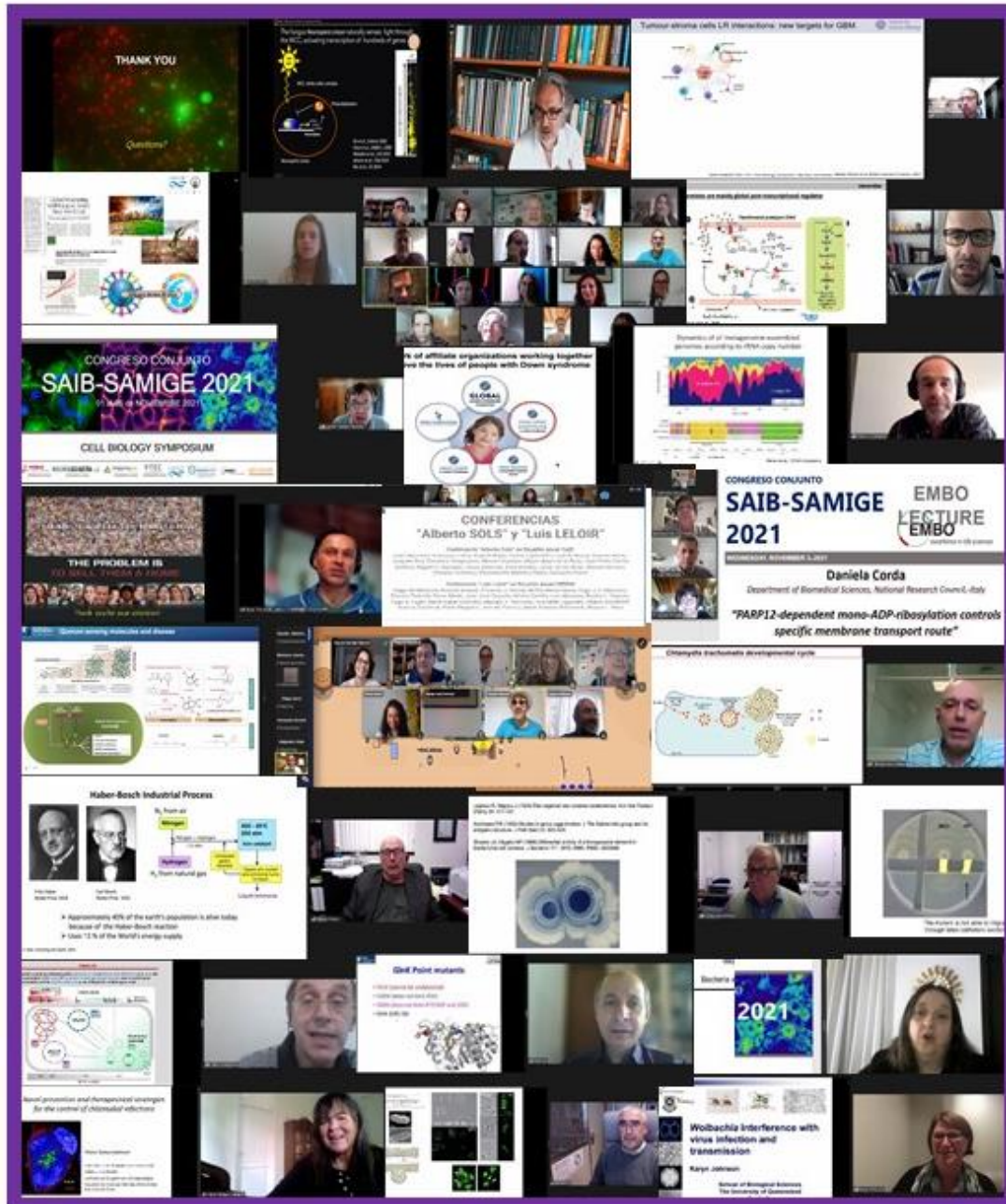


# *SAIB - SAMIGE Joint meeting 2021 on line*



*November 1-5, 2021*



***LVII Annual Meeting of the  
Argentine Society for Biochemistry  
and Molecular Biology Research  
(SAIB)***

***XVI Annual Meeting of the  
Argentinean Society for  
General Microbiology (SAMIGE)***

***SAIB - SAMIGE Joint meeting  
2021 on line***

## MEMBERS OF THE SAIB BOARD

**María Isabel Colombo**

*President*

IHEM CONICET

Facultad de Ciencias Médicas

Universidad Nacional de Cuyo – Mendoza

**Eduardo Ceccarelli**

*Vicepresident*

IBR CONICET

Facultad de Ciencias Bioquímicas y Farmacéuticas

Universidad Nacional de Rosario

**Silvia Moreno**

*Past-President*

IQUIBICEN CONICET

Facultad de Cs Exactas y Naturales

Universidad de Buenos Aires

**Gabriela Salvador**

*Secretary*

INIBIBB CONICET

Depto. de Biología, Bioquímica y Farmacia

Universidad Nacional del Sur

**Eleonora García Véscovi**

*Treasurer*

IBR CONICET

Facultad de Ciencias Bioquímicas y Farmacéuticas

Universidad Nacional de Rosario

**Federico Sisti**

*Prosecretary*

IBBM CONICET

Facultad de Ciencias Exactas

Universidad Nacional de la Plata

**Germán Rosano**

*Protreasurer*

IBR CONICET

Facultad de Ciencias Bioquímicas y Farmacéuticas

Universidad Nacional de Rosario

**Eleonora Campos**  
*Auditor*  
IABIMO CONICET.  
Universidad Nacional de San Martín

**Claudia Studdert**  
*Auditor*  
IAL CONICET  
Facultad de Bioquímica y Ciencias Biológicas  
Universidad Nacional del Litoral

**DELEGATES OF SCIENTIFIC SECTIONS**

Cell Biology  
**Javier Valdez Taubas**  
CIQUIBIC CONICET  
Facultad de Ciencias Químicas  
Universidad Nacional de Córdoba

Lipids  
**Nicolás Favale**  
IQUIFIB  
Facultad de Farmacia y Bioquímica  
Universidad de Buenos Aires

Plants  
**José M Estevez**  
FIL-IIBBA CONICET

Microbiology  
**Augusto Bellomio**  
INSIBIO-CONICET  
Facultad de Bioquímica, Química y Farmacia.  
Universidad Nacional de Tucumán

Signal Transduction  
**Vanesa Gottifredi**  
FIL-IIBBA CONICET

## **MEMBERS OF THE SAMIGE BOARD**

**Eleonora García Véscovi**

*President*

Instituto de Biología Molecular y Celular de Rosario  
(IBR-CONICET)  
Facultad de Ciencias Bioquímicas y Farmacéuticas  
Universidad Nacional de Rosario

**Andrea Smania**

*Vicepresident*

Centro de Investigaciones en Química Biológica de Córdoba  
(CIQUIBIC-CONICET)  
Universidad Nacional de Córdoba

**Oswaldo Yantorno**

*Past-President*

Centro de Investigación y Desarrollo en Fermentaciones  
Industriales  
(CINDEFI-CONICET)  
Universidad Nacional de La Plata

**Claudio Valverde**

*Secretary*

Departamento de Ciencia y Tecnología  
Universidad Nacional de Quilmes

**Leonardo Curatti**

*Treasurer*

Instituto de Investigaciones en Biodiversidad y Biotecnología  
(INBIOTEC-CONICET)  
Universidad Nacional de Mar del Plata

**Laura Raiger Iustman**

*Prosecretary*

Instituto de Química Biológica de la Facultad de Ciencias Exactas y Naturales  
(IQUIBICEN-CONICET)  
Universidad de Buenos Aires

**Rosana De Castro**

*Protreasurer*

Instituto de Investigaciones Biológicas  
(IIB-CONICET)  
Universidad Nacional de Mar del Plata.

**Estela Galván**

*Auditor*

Centro de Estudios Biomédicos, Básicos, Aplicados y Desarrollo  
(CEBBAD-CONICET)  
Universidad Maimónides

**María Julia Pettinari**

*Auditor*

Instituto de Química Biológica de la Facultad de Ciencias Exactas y Naturales  
(IQUIBICEN-CONICET)  
Universidad de Buenos Aires

***Gather Town Team***

Eleonora Campos  
Estela Galván  
Laura Raiger Iustman  
Federico Sisti

***Sponsors Team***

Nicolás Favale  
Julia Pettinari

### SAIB-SAMIGE Joint meeting 2021 - Program at a glance

	Monday, Nov 1 <sup>st</sup>	Tuesday, Nov 2 <sup>nd</sup>	Wednesday, Nov 3 <sup>rd</sup>	Thursday, Nov 4 <sup>th</sup>	Friday, Nov 5 <sup>th</sup>
9:00-9:15	Opening ceremony				
9:15-11:15	<b>PARALLEL SYMPOSIA</b>  <i>Cell Biology</i>  <i>Microbiology I: Host-pathogen Interactions</i>	<b>PARALLEL SYMPOSIA</b>  <i>Plants</i>  <i>Microbiology II: Biotechnology &amp; Environmental Microbiology</i>	<b>PARALLEL SYMPOSIA</b>  <i>Lipids</i>  <i>Microbiology III: Molecular Microbiology</i>  <i>Signal transduction</i>	<b>PARALLEL SYMPOSIA</b>  <i>Glycobiology</i> <i>(Tribute to Dr. J.L. Daniotti)</i>  <i>Microbiology IV: Microbial Ecology &amp; Physiology</i>	<b>SYMPOSIUM</b>  <i>Young investigators</i>
11:15	Break	Break	Break	Break	Break
11:30-12:30	<b>SAIB Plenary lecture</b> <b>"A. Sols"</b> <i>Consuelo Guerri</i>	<b>SAMIGE Plenary lecture</b> <i>Francisco García del Portillo</i>	<b>SAIB Plenary lecture</b> <b>EMBO</b> <i>Daniela Corda</i>	<b>SAMIGE Plenary lecture</b> <i>Dennis Dean</i>	<b>Closing ceremony</b>
12:30	Break	Break	Break	Break	
13:30-13:50		<i>Tribute to Dr. Israel Algranati</i>		<i>Tribute to Dr. Juan Dellacha</i>	
14:00-15:00	<b>SAMIGE Plenary lecture</b> <i>Luis Larrondo</i>	<b>SAIB Plenary lecture</b> <b>"Héctor Torres"</b> <i>Joaquín Espinosa</i>	<b>SAMIGE Plenary lecture</b> <i>Josep Casadesus</i>	<b>SAIB Plenary lecture</b> <b>"Ranwel Caputto"</b> <i>Beatriz Caputto</i>	
15:00-15:15	Break	Break	Break	Break	
15:15-17:15	Poster session	Poster session	Poster session	Oral communications	
17:15-17:30	Break	Break	Break	Break	
17:30-19:30	Oral communications	Oral communications	Break	Break	
			<b>19:00 SAIB Assembly</b>	<b>19:00 SAMIGE Assembly</b>	

*This meeting was supported by:*



**VIDEO CONFERENCE ROOM SUPPORT**

**CONICET-CCT-Bahía Blanca**  
**CONICET-CCT-Córdoba**  
**CONICET-CCT-Rosario**  
**CONICET-CCT-Tucumán**  
**INBIOTEC-CONICET-Mar del Plata**  
**IIB-CONICET-Mar del Plata**  
**Fundación Instituto LELOIR**



**SAIB-SAMIGE  
ONLINE PROGRAM**

**MONDAY, NOVEMBER 1<sup>st</sup> 2021**

**Virtual Room Córdoba**

**9:00-9:15**

**OPENING CEREMONY**

*María Isabel Colombo- SAIB President  
Eleonora García Vescovi - SAMIGE President*

**9:15-11:15**

**SYMPOSIA**

**Virtual Room Córdoba**

**SI-SAIB- CELL BIOLOGY**

*Chairpersons: Javier Valdez Taubas-Claudia Tomes*

**Guillermo Gomez**

*Centre for Cancer Biology*

*SA Pathology and University of South Australia*

***“Harnessing artificial intelligence and patient-derived glioblastoma tumour organoids to predict response to therapies on a patient-by-patient basis”***

**Damian Refojo**

*IBioBA-CONICET-Max Planck Partner Institute, Buenos Aires, Argentina.*

***“Neddylation, an old post-translational modification that becomes new”***

**Maya Schuldiner**

*Weizmann Institute of Science, Israel*

***“Making contact - systematic analysis of contact site proteomes reveals novel players in cellular homeostasis”***

**Vivek Malhotra**

*Centre for Genomic Regulation, Barcelona, Spain*

***“Tunnelling of secretory cargo”***

**Virtual Room Rosario-1**

**S2- MICROBIOLOGY I - Host-Pathogen Interactions.**

*Chairpersons: Osvaldo Yantorno-Guadalupe Vizoso Pinto*

**Angeles Zorreguieta**

*FIL- IIBBA-CONICET-UBA, CABA, Argentina.*

***“Adhesion of Brucella to host cells”***

**Teresa Damiani**

*IMBECU-CONICET-Argentina*

***“Novel preventive and therapeutical strategies for the control of chlamydial infections”***

**Pablo Zunino**

*IIBCE, Montevideo, Uruguay*

***“Bases of the interaction among proteus mirabilis and the urinary tract”***

**Alex Saka**

*CIBICI-UNC-CONICET-Argentina.*

*“Identification of chlamydial genes involved in persistence: a genomics approach”*

Virtual Room Córdoba

**11:30-12:30**

**SAIB LECTURE “Alberto Sols”**

*Chairperson: Fabiana Drincovich-Gustavo Chiabrandó*

**Consuelo Guerri**

*Center Prince Felipe, Valencia-Spain*

*“Critical role of Tall-like receptors in the neuroinflammation, neurodegeneration and alcohol-induced brain damage”*

Virtual Room Córdoba

**14:00-15:00**

**SAMIGE LECTURE**

*Chairperson: Mónica Delgado*

**Luis Larrondo**

*Pontificia Universidad Católica de Chile, Santiago, Chile*

*“Developing a detailed map of gene expression and implementing tools to reprogram population-level dynamics utilizing fungal optogenetic”*

Gather Town

**15:15-17:15**

**POSTERS**

**17:30-19:30**

**ORAL COMMUNICATIONS**

Virtual Room Córdoba

**C-LIPIDS**

Virtual Room Rosario-1

**C-MICROBIOLOGY I**

**TUESDAY, NOVEMBER 2<sup>nd</sup> 2021**

**9:15-11:15**

**SYMPOSIA**

Virtual Room Córdoba

**S3-SAIB-PLANTS**

*Chairpersons: José Estévez-María Victoria Busi*

**Clara Sánchez-Rodríguez**

*ETH Zurich- IHSM-UMA-CSIC*

*“The role of the cell wall in plant adaptation to environmental stresses”*

**Juan C. del Pozo**

*Centro de Biotecnología y Genómica de Plantas (CBGP)-Spain*

*“Getting close to nature to understand plant responses to high temperatures”*

**Guido Grossmann**

*Institute of Cell and Interaction Biology (ICIB), Heinrich-Heine-University Düsseldorf-Germany*

*“Root hairs - shaping a cell designed to invade”*

**Ana María Laxalt**  
*Instituto de Investigaciones Biológicas (IIB-CONICET-UNMDP-Argentina)*  
**“Phospholipase C in plant stress and development”**

**Virtual Room Rosario-2**

**S4- MICROBIOLOGY II: Biotechnology & Environmental Microbiology**

*Chairpersons: María de las Mercedes Pescaretti-Leonardo Curatti*

**Marcela Ferrero**  
*YPF Tecnología (Y-TEC)-CONICET-Argentina*  
**“Biotechnology challenges in the petroleum industry”**

**Juan Pablo Busalmen**  
*INTEMA-CONICET-UNMDP-Argentina*  
**“The business of REAL STATE DEVELOPMENTS for bacteria”**

**Emanuel De Souza**  
*Universidade Federal do Paraná, Curitiba- Brazil*  
**“Regulation of the transcription regulator NifA by ammonium and PII in *Herbaspirillum seropedicae*”**

**María Eugenia Farías**  
*PROIMI-CCT-CONICET, San Miguel de Tucumán -Argentina*  
**“Modern microbialites and microbial mats in volcanoes, wetlands and salt flats of the central Andes. Prospection, science, preservation and biotechnological applications”**

**Virtual Room Córdoba**

**11:30-12:30 SAMIGE LECTURE**

*Chairperson: Eleonora García Vescovi*

**Francisco García del Portillo**  
*Laboratory of Intracellular Bacterial Pathogens, CNB-CSIC, Madrid, Spain*  
**“The peptidoglycan and the evolution of *Salmonella enterica* as intracellular pathogen”**

**Virtual Room Córdoba**

**13:30-13:50 Tribute to Dr. Israel Algranati**

**Armando Parodi**  
*FIL-CONICET-Argentina*

**Virtual Room Córdoba**

**14:00-15:00 SAIB LECTURE “Hector Torres”**

*Chairpersons: Diego De Mendoza-Nora Calcaterra*

**Joaquín Espinosa**  
*Linda Crnic Institute for Down Syndrome-Department of Pharmacology, University of Colorado  
Anschutz Medical Campus-USA*  
**“COVID-19 and Down syndrome: unexpected connections and therapeutic implications”**

Gather Town

15:15-17:15

POSTERS

17:30-19:30

ORAL COMMUNICATIONS

Virtual Room Leloir

*C-SIGNAL TRANSDUCTION*

Virtual Room Rosario-2

*C-MICROBIOLOGY II*

Virtual Room Córdoba

*C-PLANTS & GLYCOBIOLOGY*

WEDNESDAY, NOVEMBER 3<sup>rd</sup> 2021

9:15-11:15

SYMPOSIA

Virtual Room Córdoba

*S5. SAIB- Lipids*

*Chairpersons: Nicolás Favale-Gabriela Salvador*

**Patricia Torre Bozza**

*Oswaldo Cruz Foundation-Brasil*

*“Targeting lipid metabolism in CoVid-19”*

**Karen Reue**

*University of California-Los Angeles- USA*

*“The lipin phosphatidic acid phosphatases: diverse roles in lipid homeostasis”*

**Silvia Belmonte**

*IHEM-CONICET-Argentina.*

*“Human sperm phosphatidylinositol 4-phosphate 5-kinase type  $\gamma$  ( $\text{pi4p-5ki}\gamma$ ) activity is crucial for the acrosome granule exocytosis”*

**Ariel Quiroga**

*IFISE-CONICET-Argentina.*

*“Role of microsomal triglyceride transfer protein (mtp) in tumor growth. A new function for mtp?”*

Virtual Room Rosario-3

*S6. MICROBIOLOGY III: Molecular Microbiology*

*Chairpersons: Julieta Fernandez –Claudio Valverde*

**Miguel Camara**

*NBIC-Nottingham-UK*

*“Complexity of quorum sensing regulatory systems and their therapeutic exploitation”*

**Antonio Lagares**

*IBBM-CONICET-UNLP-Argentina*

*“The genetic language in prokaryotes. Evidences of an ancestral search for more efficient and accurate textual forms correlating with gene ancestry”*

**Alejandro Viale**

*IBR-CONICET -UNR -Argentina*

*“Dynamic state of genomic architectures resulting from recombination at XerC/D sites located in acinetobacter plasmids carrying carbapenem resistance adaptive modules”*

**Julia Pettinari**

*IQUIBICEN-CONICET-UBA-Argentina*

*“A holistic approach to metabolic engineering: Manipulation of global regulators for bioproduct synthesis optimization”*

### Virtual Room Leloir

#### **S7. SAIB-SIGNAL TRANSDUCTION**

*Chairpersons: Vanesa Gottifredi-Graciela Boccaccio*

**Diego Comerci**

*IIB-UNSAM-Argentina*

*“When bio and nano meet: development and production of diagnostic tests in the fight against CoVid-19”.*

**Andrea Gamarnik**

*FIL-CONICET - Argentina*

*“From molecular virology to a public health emergency: how did we change the way we pursue science during the pandemic?”*

**Fernando Goldbaum**

*FIL-CONICET-Argentina*

*“RBD-specific polyclonal f(ab')<sub>2</sub> fragments of equine antibodies in patients with moderate to severe CoVid-19 disease”*

**Juliana Cassataro**

*IIB-UNSAM -Argentina*

*“Development of new adjuvants for vaccine formulations against infectious diseases. Usefulness of this knowledge to build a vaccine against SARSCoV-2”*

### Virtual Room Córdoba

**11:30-12:30**

**EMBO LECTURE**

*Chairpersons: María Isabel Colombo-Luis Mayorga*

**Daniela Corda**

*Department of Biomedical Sciences, National Research Council, -Italy*

*“PARP12-dependent mono-ADP-ribosylation controls specific membrane transport route”*

### Virtual Room Córdoba

**14:00-15:00**

**SAMIGE LECTURE**

*Chairperson: Andrea Smania*

**Josep Casadesus**

*Departamento de Genética, Universidad de Sevilla, Spain*

***“Phenotypic heterogeneity in bacterial populations”***

**Gather Town**

**15:15-17:15**

**POSTERS**

**19:00**

**SAIB ASSEMBLY**

**THURSDAY, NOVEMBER 4<sup>th</sup> 2021**

**9:15-11:15**

**SYMPOSIA**

**Virtual Room Córdoba**

**S8. SAIB- GLYCOBIOLOGY (tribute to Dr. José Luis Daniotti)**

*Chairpersons: José Estevez-Javier Valdez Taubas*

**Hugo Maccioni**

*CIQUIBIC-CONICET-Argentina*

***Tribute to Dr. José Luis Daniotti***

**Gabriel Rabinovich**

*IBYME-CONICET-Argentina*

***“A sweet adventure from tumor-immune escape to the resolution of inflammation”***

**Richard Proia**

*NIDDK-NIH-EE.UU*

***“Orchestration of the sphingolipid metabolic network”***

**Cecilia D’ Alessio**

*FBMC-FCEN-UBA-Argentina*

***“A journey in the early steps of n-glycosylation and glycoprotein folding in the fission yeast secretory pathway”***

**Virtual Room Rosario-4**

**S9. MICROBIOLOGY IV: Microbial Ecology & Physiology**

*Chairpersons: María Julia Pettinari-Elvira María Hébert*

**Karyn Johnson**

*School of Biological Sciences, Queensland, Australia*

***“Wolbachia interference with virus infection and transmission”***

**Jorgelina Ottado**

*IBR-CONICET-UNR-Argentina*

***“Environmental bacteria with ability to degrade glyphosate”***

**Leonardo Erijman**

*INGEBI-CONICET-UBA-Argentina*

***“Ecological plasticity of microbial communities in environmental biotechnology systems”***

**Lucila Saavedra**

*CERELA-CONICET-Argentina*

***“Postbiotic metabolites produced by lactic acid bacteria. a molecular and functional overview”***

Virtual Room Córdoba

11:30-12:30

SAMIGE LECTURE

*Chairperson: Leonardo Curatti*

**Dennis Dean**

*College of Agricultural and Life Sciences, Virginia Tech, USA*

**“Nitrogenase catalysis and assembly”**

Virtual Room Córdoba

13:30-13:50

Tribute to Dr. Juan Dellacha

**Nicolás Favale**

*IQUIFIB-UBA-CONICET*

Virtual Room Córdoba

14:00-15:00

SAIB LECTURE “Ranwel Caputto”

*Chairpersons: Mario Guido-Carlos Argaraña*

**Beatriz Caputto**

*CIQUIBIC-UNC-Argentina*

**“c-Fos, a protein with a dual function:**

**“How far did we go in deciphering its lipid synthesis activator function?”**

15:15-17:15

ORAL COMMUNICATIONS

Virtual Room Leloir

*C-CELL BIOLOGY*

Virtual Room Rosario-4

*C-MICROBIOLOGY III*

Virtual Room Córdoba

*C-BIOTECHNOLOGY*

19:00

SAMIGE ASSEMBLY

FRIDAY, NOVEMBER 5<sup>th</sup> 2021

9:15-11:45

SYMPOSIUM

Virtual Room Córdoba

**S10. SAIB-SAMIGE- Young Investigators**

*Chairpersons: Andrea Smania – Federico Sisti*

**Ezequiel Nazer**

*IFIBYNE-CONICET-UBA, Argentina.*

**“Demystifying the transcriptional function of argonaute proteins in metazoan”**

**Patricio Martín Sobrero**

*Laboratory of Physiology and Genetics of Plant-Growth Promoting Bacteria, DCyT-UNQ-Argentina*

**“The hitchhiker’s guide to the galaxy of Csr/Rsm RNA-binding protein family in the genus *Pseudomonas*”**

**Clarisa Alvarez**  
*CEFOBI- CONICET-UNR- Argentina*  
**“Malic enzyme family: structural-biochemical analysis to improves catalytic properties”**

**Cecilia Mlewski**  
*IMBIV-CONICET / CICTERRA-CONICET, Argentina*  
**“Assessing the potential of *Rivularia halophila* for arsenic removal”**

**Martín Hernández**  
*INBIOP-UNPSJB-CONICET, Argentina*  
**“Contribution of some transcriptional regulators to the oleaginous phenotype in rhodococci”**

**María Victoria Martin**  
*INBIOTEC-CONICET / CIB-FIBA – UNMdP, Argentina*  
**“Regulated cell death in cyanobacteria: new horizons for developing methodologies to face the problem of cyanobacterial blooms”**

### Virtual Room Córdoba

**12:00-12:30** Closing Ceremony: Oral Communication Awards

### ORAL COMMUNICATIONS- Monday November 1<sup>st</sup>- 17:30-19:30

#### Virtual Room Córdoba

#### **LIPIDS**

*Chairpersons: Nicolás Favale - Ariel Quiroga*

*17:30-17:43*

**LI-C01-05. SPHINGOMYELIN METABOLISM INVOLVEMENT IN EPITHELIAL-MESENCHYMAL TRANSITION (EMT) PROCESS IN RENAL COLLECTING DUCTS DURING AGING.**

*Brandán YR, Guaytina EV, Pescio Lucila G, Favale NO, Santacreu BJ, Sterin-Speziale NB, Márquez MG<sup>1</sup>.*

*17:45-17:58*

**LI-C02-23. EFFECT OF PHOSPHATIDYLCHOLINE ON NEURONAL PLASTICITY OF NEURAL STEM CELLS UNDER INFLAMMATORY CONDITIONS.**

*Magaquian D, Delgado Ocaña S, Banchio C.*

*18:00-18:13*

**LI-C03-45. EX VIVO PROGRESSION OF SPERMATOGENESIS ENTAILS ACCRETION OF LIPIDS WITH LONG AND VERY-LONG-CHAIN POLYENOIC FATTY ACIDS.**

*Santiago Valtierra FX, Luquez JM, Oresti GM.*

*18:15-18:28*

**LI-C04-59. CYCLOOXYGENASES AND LIPOXYGENASES: KEY PLAYERS IN THE NEURONAL RESPONSE TO MANEB TOXICITY.**

*Benzi Juncos ON<sup>2</sup>, Alza NP<sup>3</sup>, Salvador GA.*

*18:30-18:43*

**LI-C05-85. NUCLEAR CARBOXYLESTERASE IS A LIPASE INVOLVED IN LIPID-DROPLETS HOMEOSTASIS.**

*Lagrutta LC, Trejo SA, Ves-Losada A.*

*18:45-18:58*



**LI-C06-175. SPHINGOSINE-1-PHOSPHATE RECEPTOR 2 (S1PR2) PROMOTES EPITHELIAL MESENCHYMAL TRANSITION IN DIFFERENTIATED MDCK CELLS TROUGH ERK1/2 SIGNALING INVOLVING  $\beta$ -CATENIN AND SNAI2.**

*Romero DJ, Santacreu BJ, Mosca JM, Favale NO.*

19:00-19:13

**LI-C07-247. SUBCELLULAR LOCALIZATION OF FOXO1 CHANGES IN 3T3L1 PREADIPOCYTE CELLS SILENCED FOR 14-3-3 $\gamma$  PROTEIN.**

*Müller S, Del Veliz S, Rivera L, Uhart M, Bustos DM.*

19:15-19:28

**LI-C08-248. 14-3-3 GAMMA OR BETA KNOCKDOWN AFFECTS 3T3-L1 ADIPOGENIC DIFFERENTIATION THROUGH HIPPO PATHWAY MODULATION.**

*Del Veliz S, Uhart M, Bustos DM.*

### **Virtual Room Rosario-1**

#### **MICROBIOLOGY I**

*Chairpersons: Laura Raiger-Iustman – Jorgelina Morán Barrio*

17:30-17:43

**MI-C01-230. DECOLORIZATION OF SULPHUR BLACK DYE AND REAL TEXTILE WASTEWATER BY THE ENDOPHYTIC STRAIN *Talaromyces purpureogenus* H4.**

*Bonilla JO, Lencina NM, Barbero B, Kurina-Sanz M, Magallanes-Noguera C.*

17:45-17:58

**MI-C02-235. AZODYES DECOLOURIZATION BY THE HALOTOLERANT YEAST *Leucosporidium muscorum* F20A UNDER SUBMERGED FERMENTATION.**

*Ruscasso F, Scaramutti M, Rios P, Cavello I*

18:00-18:13

**MI-C03-306. INDUCED PRODUCTION OF AMYLOLYTIC CAZYMES OF A NATIVE *Aspergillus niger* STRAIN USING WHEAT BRAN AND MICROALGAL BIOMASS AS A HYDROLYZABLE SUBSTRATE.**

*Bader AN, Sánchez Rizza L, Consolo VF, Curatti L*

18:15-18:28

**MI-C04-74. NOVEL FERMENTED BEVERAGE USING SELENIZED LACTIC ACID BACTERIA.**

*Martínez FG, Madrid Y, Ordoñez OF, Pescuma M, Mozzi F*

18:30-18:43

**MI-C05-231. A GLYCOENGINEERING PLATAFORM FOR DESIGN AND HIGH YIELD PRODUCTION OF RECOMBINANT NEUTRAL CYCLIC BETA GLUCANS.**

*Guidolin LS, Caillava AJ, Couto A, Casabuono A, Comerci DJ, Ciocchini AE*

18:45-18:58

**MI-C06-238. OPTIMIZING THE MICROENCAPSULATION OF *Lactobacillus salivarius* LET201 WITH SOYBEAN PROTEIN ISOLATE AND SODIUM ALGINATE.**

*Babot JD, Argañaraz Martínez E, Grande SMM, Apella MC, Perez Chaia A*

19:00-19:13

**MI-C07-258. APPLICATION OF *Vishniacozyma victoriae* AND CALCIUM CHLORIDE FOR THE CONTROL OF POSTHARVEST DISEASES OF PEAR FRUIT UNDER SEMI-COMMERCIAL CONDITIONS.**

*Gorordo E, Lucca ME, Sangorrín MP*

**ORAL COMMUNICATIONS-Tuesday November 2<sup>nd</sup>- 17:30-19:30**

**Virtual Room Leloir**

**SIGNAL TRANSDUCTION, NEUROSCIENCES, ENZYMOLOGY**

*Chairpersons: Vanesa Gottifredi - Eduardo Ceccarelli*

17:30-17:43

**ST-C01-88. CROSSTALK BETWEEN cAMP-PKA AND HOG-MAPK PATHWAYS IN THE REGULATION OF THE OSMOTIC STRESS RESPONSE IN *S. CEREVISIAE*.**

*Ojeda LE; Gullias F; Ortola MC; Galello FA; Rossi SG; Bermudez Moretti M; Portela P.*

17:45-17:58.

**ST-C02-251. ORGANELLE-DERIVED SIGNALS CONTROL ALTERNATIVE SPLICING IN *ARABIDOPSIS THALIANA* VIA TOR KINASE.**

*Servi L; Riegler S; Scarpin MR; Godoy Herz MA; Kubaczka MG; Venhuizen P; Meyer C; Brunkard JO; Kalyna M; Barta A; Petrillo E.*

18:00-18:13.

**EN-C01-187. IDENTIFICATION AND CHARACTERIZATION OF TeGA, A NOVEL THERMOACTIVE AND THERMOSTABLE GLUCOAMYLASE FROM *Thermoanaerobacter ethanolicus*.**

*Wayllace N, Hedín N, Busi MV\* and Gomez-Casati DF\**

18:15-18:28

**NS-C01.39 NSC-EXTRACELLULAR VESICLES FAVORS NEURONAL DIFFERENTIATION UNDER STRESS CONDITIONS.**

*Delgado S, Magaquian D, Banchio C*

**Virtual Room Córdoba**

**PLANTS AND GLYCOBIOLOGY**

*Chairpersons: José Estevez - Elina Welchen*

17:30-17:43

**PL-C01-216. CBM20CP, A NOVEL FUNCTIONAL PROTEIN OF STARCH METABOLISM IN GREEN ALGAE.**

*Velazquez MB, Hedin N, Barchiesi J, Gomez-Casati DF, Busi MV*

17:45-17:58

**PL-C02-221. LINK BETWEEN DNA MISMATCH REPAIR SYSTEM AND IMMUNE RESPONSE IN *ARABIDOPSIS THALIANA*.**

*Ramos RS, Spampinato CP.*

18:00-18:13

**PL-C03-285. THE CHROMATIN REMODELER MOM1 AND THE IMMUNOLOGICAL MEMORY IN PLANTS.**

*Miranda de la Torre JO, Peppino Margutti M, Lescano I, Alvarez ME, Cecchini NM*

18:15-18:28

**PL-C04-264. POLYAMINES AND SODIUM NITROPRUSSIDE EXHIBITED DIFFERENT BEHAVIOUR AS PROTECTORS UNDER DARK OR Cd-INDUCED SENESCENCE.**

*Cabrera AV; Recalde L, Blager L, Groppa MD, Benavides MP*

18:30-18:43

**GB-C01-94. DETERMINATION OF MUC5B SULFATED GLYCANS IN SJÖGREN'S SYNDROME PATIENTS.**

*Landoni M, Vazquez TJ, Castro I, González MJ, Couto AS*

18:45-18:58

**GB-C02-93. GLYCOENGINEERING BY HYPERGLYCOSYLATION: AN INNOVATIVE STRATEGY TO BLOCK THE UNDESIRE EFFECTS OF HUMAN ERYTHROPOIETIN AS A NEUROTHERAPEUTIC CANDIDATE.**

*Bürgi M, Aparicio G, Wandel-Petersen V, Depetris M, Kratje R, Scorticati C, Oggero-Eberhardt M*

19:00-19:13

**GB-C03-172. PHENOTYPE OF AN  $\alpha$ -GLUCOSIDASE I-DEFICIENT FISSION YEAST STRAIN BY COMPLEMENTATION WITH CATALYTIC AND CDG IIb PATIENTS GLUCOSIDASE MUTANTS.**

*Idrovo-Hidalgo T, Aramburu S, Gallo GL, D'Alessio C.*

19:15-19:28

**GB-C04-302. GLUCOSAMINE-1P AS A SUBSTRATE IN ADP-GLUCOSE YROPHOSPHORYLASES FROM GRAM-POSITIVE BACTERIA.**

*Iglesias MJ, Iglesias AA, Asencion Diez MD*

**Virtual Room Rosario-2**

**MICROBIOLOGY II**

*Chairpersons: Rosana de Castro – Mariana Grillo Puertas*

17:30-17:43

**MI-C08-6. DEGRADATION OF THE MYCOTOXIN FUSARIC ACID IN *Burkholderia ambifaria* T16: GENES AND METABOLIC PATHWAYS INVOLVED.**

*Vinacour M, Forne I, Jung K, Imhof A, Ruiz J*

17:45-17:58

**MI-C09-305. MODIFICATIONS OF *Burkholderia contaminans* LIPOPOLYSACCHARIDE IN ISOLATES RECOVERED DURING CHRONIC LUNG INFECTION OF PATIENTS WITH CYSTIC FIBROSIS.**

*Casco D, Prieto C, Valdez H, León B, Lamberti Y, Bettiol M, Vita C, Figoli C, Rodriguez ME, Yantorno O, Bosch A*

18:00-18:13

**MI-C10-29. AN INTEGRATED SYSTEM APPROACH REVEALED A PLEIOTROPIC CONTROL MEDIATED BY THE KEY CARBON GLOBAL REGULATOR PhaR IN *Bradyrhizobium diazoefficiens*.**

*Egoburo D, Cabrera JJ, Díaz Peña R, Tortosa G, Delgado MJ, Mongiardini E, Müller-Santos M, Pettinari J, Mesa S, Quelas JJ*

18:15-18:28

**MI-C11-128. CypB, A *Brucella abortus* TYPE IV EFFECTOR PROTEIN, INTERACTS WITH N-WASP, A CRITICAL REGULATOR OF ACTIN CYTOSKELETAL DYNAMICS.** *Pepe MV,*

*Giménez AB, Briones G, Roset MS.*

18:30-18:43

**MI-C12-151. THE INFLAMMATORY RESPONSE INDUCED BY *Pseudomonas aeruginosa* IN MACROPHAGES ENHANCES APOPTOTIC CELL REMOVAL.**

*Arias P, Jäger AV, Tribulatti MV, Brocco MA, Pepe MV, Kierbel A*

18:45-18:58

**MI-C13-156. DYNAMICS OF *Pseudomonas aeruginosa* AGGREGATE FORMATION ON APOPTOTIC CELLS.**

*Dea C, Pepe V, Peruani F, Kierbel A*

19:00-19:13

**MI-C14-164. ADHESIVE FUNCTIONS OR PSEUDOGENIZATION OF MONOMERIC AUTOTRANSPORTERS IN *Brucella* SPECIES.**

*Bialer MG, Ferrero MC, Delpino MV, Ruiz-Ranwez V, Posadas DM, Baldi PC, Zorreguieta A*

19:15-19:28

**MI-C15-25. BIOFILM ON STEEL OR PLANKTONIC CELLS? WHAT DRIVES EITHER GROWTH FORM.**

*Robledo A, Escalada L, Busalmen JP, Simison S, Massazza D*

**ORAL COMMUNICATIONS -Thursday November 4<sup>th</sup>- 15:15-17:15**

**Virtual Room Leloir**

**CELL BIOLOGY**

*Chairpersons: Javier Valdez Taubas - Pablo Aguilar*

15:15-15:28

**CB-C01-219. THE NEW ROLE OF AP-2 ADAPTOR PROTEIN IN *GIARDIA LAMBLIA* ENCYSTATION.**

*Feliziani C, Rivero MR, Quassollo G, Rópolo AS, Touz MC.*

15:30-15:43

**CB-C02-36. THE ROLE OF CHEMOKINES WITH SKIN AND NASAL MUCOSAL TROPISM IN THE OUTCOME OF AMERICAN TEGUMENTARY LEISHMANIASIS (ATL).**

*Pimentel J, García Bustos MF, Marco JD, Barroso P, Ragone P, Mesías A, Pérez Brandán C, Acuña L, Parodi C*

15:43-15:58

**CB-C03-250. THE INTERPLAY BETWEEN LRRK2, RQC AND STRESS REVEALS NEW INSIGHTS IN LRRK2'S FUNCTIONS.**

*La Spina PE, Fernández-Alvarez AJ, Perez-Pepe M, Larotonda L, Boccaccio GL.*

16:00-16:13

**CB-C04-106. CONSERVATION OF ZEBRAFISH miRNA-145 AND ITS ROLE DURING NEURAL CREST DEVELOPMENT.**

*Steeman TJ, Calcaterra NB, Weiner AMJ*

16:15-16:28

**CB-C05-226. THE HIV-1 ACCESSORY PROTEIN V<sub>pu</sub> RETAINS HOST SLC1A5 (ASCT2) AMINO ACID TRANSPORTER IN THE ER AND PROMOTES ITS CLEAVAGE AND DEGRADATION VIA PROTEASOME.**

*Morellatto Ruggieri L, Drake Figueredo A, Magadán JG*

16:30-16:43

**CB-C06-222. TRAFFICKING OF IAV M1 PROTEIN AT LATE STAGES OF INFECTIOUS CYCLE IS INDEPENDENT OF OTHER VIRAL PROTEINS AND INDIRECTLY DEPENDS ON GOLGI COMPARTMENT.**

*Drake Figueredo A, Morellatto Ruggieri L, Magadán JG.*

16:45-16:58

**CB-C07-42. IDENTIFICATION AND ANALYSIS OF NOVEL CELLULAR KEY FACTORS IN HPV INFECTION USING PSEUDOVIRAL PARTICLES.**

*Bugnon Valdano M, Dizanzo MP, Leiva S, Banks L, Gardiol D*

17:00-17:13

**CB-C08-32. ALTERATIONS ON PDZ POLARITY PROTEIN EXPRESSION DURING HPV ONCOGENESIS.**

*Dizanzo MP, Bugnon Valdano M, Marziali F, Leiva S, Cavatorta AL, Banks L, Gardiol D.*

**Virtual Room Córdoba**

**BIOTECHNOLOGY**

*Chairpersons: Eleonora Campos - Claudia Sttudert*

15:15-15:28

**BT-C01-65. DEVELOPMENT OF A NOVEL MULTI-EPITOPE ANTIGEN EFFECTIVE TO CONTROL TRYPANOSOMA CRUZI INFECTION**

*Vázquez ME, Zabala B, Mesías AC, Parodi C, Pérez Brandán C, Acuña L*

15:30-15:43

**DEVELOPMENT OF COVID-19 MONOCLONAL ANTIBODIES AND RECOMBINANT PROTEINS AS REAGENTS FOR BIOMEDICAL RESEARCH AND DIAGNOSTIC TESTS.**

*Acuña Intriéri ME, Deriane MA, Miller C, Czibener C, Correa E, Cagnaz L, Guerra L, Rodríguez S, Goldbaum F, Seigelchifer M, Comerci DJ, Montagna G, Cerutti ML*

15:45-15:58

**BT-C03-135. GROWTH OF ELECTRO-ACTIVE BACTERIA WITH BIOCHAR AS CHEMICAL ELECTRON ACCEPTOR AND ELECTRODE MATERIAL.**

*Antic Gorrazzi S, Massazza D, Pedetta A, Busalmen JP, Bonanni PS<sup>1</sup>.*

16:00-16:13

**BT-C04-246. BIOTECHNOLOGICAL STRATEGIES TOWARD AN AROMA KETONE.**

*Ceccoli RD, Bianchi DA, Rial DV.*

16:15-16:28

**MI-P135-289. PLOMBOX: A DEVICE FOR OPEN-SOURCE METROLOGY TO FIGHT LEAD CONTAMINATION IN DRINKING WATER.**

*Gándola Y\*, Alvarez M\*, Gasulla J, Nadra AD, for the TRACE collaboration of PlomBOX project (plombox.org)*

**Virtual Room Rosario-4**

**MICROBIOLOGY III**

*Chairpersons: Claudio Valverde – Augusto Bellomio.*

15:15-15:28

**MI-C16-10. POSSIBLE ELECTRON UPTAKE MECHANISMS OF ELECTROAUTOTROPHIC NITRATE REDUCING BACTERIA.**

*Rodríguez Simón CN, Busalmen JP, Bonanni PS, Villareal FD*

15:30-15:43

**MI-C17-102. STRUCTURE BASED IDENTIFICATION OF INHIBITORS OF FASR, A KEY TRANSCRIPTIONAL REGULATOR OF CELL WALL SYNTHESIS IN *Mycobacterium tuberculosis*.**

*Colaccini F, Quiroga R, Villarreal MA, Gramajo H, Gago G*

15:45-15:58

**MI-C18-148. METAL ION-INTERACTION IN SYNTHETIC BROAD-SPECTRUM SENSORS DERIVED FROM THE Cu-RESPONSIVE CueR REGULATOR.**

*Lescano J, Mendoza J, Soncini FC, Checa SK*

16:00-16:13

**MI-C19-186. TAILORING A CRISPR/Cas9 CYTIDINE BASE-EDITOR ENABLES FAST AND RELIABLE CONSTRUCTION OF COMPLEX PHENOTYPES IN *Pseudomonas* SPECIES.**

*Martino RA, Volke DC, Kozaeva E, Smania AM, Nikel PI*

16:15-16:28

**MI-C20-242. *Bordetella bronchiseptica* DIGUANYLATE CYCLASE BdcB INHIBITS TYPE THREE SECRETION SYSTEM AND IMPACTS ON IMMUNE RESPONSE.**

*Belhart K, Gestal MC, Sisti F, Fernández J*

16:30-16:43

**MI-C21-260. RESPIRATORY BURST INDUCES TOLERANCE TO FLUOROQUINOLONES IN *Streptococcus pneumoniae*.**

*Hernández-Morfa M, Reinoso-Vizcaíno N, Olivero N, Cortes P, Zappia V, Echenique J*

3 h and then culture media was renewed every day. Biofilm biomass was measured by crystal violet assay ( $A_{595nm}$ ) and quantification of cultivable cells was performed by enumeration of colony forming units (CFU) after collagenase treatment followed by mechanical biofilm disruption. Results obtained indicated that the two strains were able to establish mono and polymicrobial biofilms, showing a similar time-dependent increase of biomass ( $A_{595nm}$  values for biofilms at day three were: monomicrobial *E. faecalis*  $8.19 \pm 2.16$ , monomicrobial *E. coli*  $10.14 \pm 1.97$ , and polymicrobial *E. faecalis*/*E. coli*  $9.15 \pm 2.17$ ). Noteworthy, CFU counts showed a statistical significant 7.5-fold lower *E. faecalis* adhesion to the surface in polymicrobial *E. faecalis*/*E. coli* than in monomicrobial biofilms ( $\text{Log}_{10}$  CFU at 3h:  $6.45 \pm 0.31$  vs  $7.34 \pm 0.29$ , respectively). However, after two days of biofilm development, no differences in *E. faecalis* cell numbers were observed between mono and polymicrobial biofilms. Regarding *E. coli*, similar viable cell numbers were found in mono and polymicrobial biofilms at all time-points assayed (3 h to 3 d). Cell-free supernatants from one-day-old *E. coli* biofilms did not produce a significant inhibition of *E. faecalis* attachment to the surface. On the other hand, mono and polymicrobial macrocolonies were developed for one day and cultivable cell numbers were enumerated by CFU counts. *E. faecalis* showed 44-fold higher bacterial numbers in polymicrobial than in monomicrobial macrocolonies ( $\text{Log}_{10}$  CFU per colony:  $7.10 \pm 0.35$  vs  $5.51 \pm 0.30$ , respectively), however no differences in *E. coli* cell numbers were detected when poly and monomicrobial macrocolonies were compared. Altogether, these results show that *E. faecalis* and *E. coli* can coexist in biofilms, with *E. coli* partially inhibiting *E. faecalis* adhesion, but then favouring *E. faecalis* growth at latter biofilms stages.

### MI-P046-27

#### 1,8-CINEOLE AS AN ANTIMICROBIAL AND ANTIBIOFILM AGENT AGAINST MULTIDRUG RESISTANT *Klebsiella pneumoniae*

Vázquez NM<sup>1,2,3</sup>, Moreno S<sup>1,3</sup>, Galván EM<sup>2,3</sup>

<sup>1</sup>Lab. Farm. Bioactivos Veg y <sup>2</sup>Lab. Patog. Bacteriana, UMAI, <sup>3</sup>CONICET. E-mail: nicolas.vazquez@live.com.ar

*Klebsiella pneumoniae* is a common cause of antimicrobial-resistant opportunistic infections in hospitalized patients, including urinary tract infections. The emergence of multidrug-resistant (MDR) strains producing extended-spectrum  $\beta$ -lactamases (ESBL) and/or carbapenemases, in combination with the capacity to produce biofilm has created additional problems in providing adequate antibiotic treatment of urinary tract infections. Biofilms are complex bacterial communities adhered to biotic or abiotic surfaces that are surrounded by an extracellular matrix composed of exopolysaccharides, proteins and nucleic acids that give them differential phenotypic properties associated with greater resistance to antibiotics. 1,8-cineole, one of the main components of *Rosmarinus officinalis* volatile oil, has shown antimicrobial activity against non-MDR Gram negative bacteria (including *K. pneumoniae*) during planktonic growth. Here, we evaluated the antimicrobial and antibiofilm activity of 1,8-cineole against planktonic and pre-formed mature biofilms of non-MDR and MDR ESBL-producing *K. pneumoniae* clinical strains isolated from urinary tract infections. Killing curves were performed in planktonic cultures by adding 1% (v/v) 1,8-cineole for 5-180 min and counting viable cells (cfu/ml). Results showed variable decrease of *K. pneumoniae* viability (ranging from 0.5 to 4 log reduction) after phytochemical treatment, not related to their antibiotic resistance profile. Regarding biofilms, all tested strains formed robust biomass after 48 h, as determined by crystal violet staining ( $\text{Abs}_{595nm} > 1$ ). One-hour treatment with 1% (v/v) 1,8-cineole partially disrupted biofilm biomasses (34 to 62% reduction in crystal violet staining). Additionally, a variable decrease in cell viability (between 0.5 and 4 log reduction of ufc/cm<sup>2</sup>) was observed by viable cell counting, regardless if they were or not MDR. Two MDR ESBL-producing *K. pneumoniae* strains, presenting different susceptibility to 1,8-cineole, were chosen to study their extracellular matrix in biofilms by confocal laser scanning microscopy after calcofluor white staining. Noteworthy, differences in the extracellular matrix structure were observed between strains, that could account for differences in 1,8-cineole susceptibility. Altogether, our results show that some antibiotic-sensitive and MDR ESBL-producing *K. pneumoniae* isolates were sensitive to 1,8-cineole exposure and support the efficacy of 1,8-cineole as a potential antimicrobial agent for the treatment of planktonic and biofilm-associated infections caused by MDR *K. pneumoniae*.

### MI-P047-28

#### REDUNDANT GENES ENCODING POTASSIUM TRANSPORTER SYSTEMS GUARANTEE THE SURVIVAL OF *Enterococcus faecalis* IN LOW POTASSIUM MEDIUM UNDER STRESS CONDITIONS

Acciarri G, Espariz M, Blancato V, Magni C.

Instituto de Biología Molecular y Celular de Rosario (CONICET). E-mail: acciarri@ibr-conicet.gov.ar

A natural commensal member of the human gut flora that belongs to the group of lactic acid bacteria, *Enterococcus faecalis* is also a clinically important opportunistic pathogen. Despite its controversial profile, *E. faecalis* is part of food products, either due to contamination or as part of starter, adjunct or non-starter cultures. A distinct trait in the physiology of these bacteria is the ability to persist and thrive in harsh environments, that include heat, acid, oxidative and hyperosmotic stress. This tolerance to stress conditions involves the rapid movement of three critical ions: proton (H<sup>+</sup>), sodium (Na<sup>+</sup>), and potassium (K<sup>+</sup>). In *E. faecalis* the activity of the proton FOF1ATPase and the sodium Na<sup>+</sup> V-type ATPase under acidic or alkaline conditions, respectively are well established. However, little is known about the K<sup>+</sup> metabolism. In this study, an initial survey was done on K<sup>+</sup> uptake in *E. faecalis*. The mining of *E. faecalis* genome revealed the presence of the putative K<sup>+</sup> transporters Kup, KimA,