



LVII SAIB Meeting - XVI SAMIGE Meeting

SAIB - SAMIGE Joint Meeting
2021 on line

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SAIB-SAMIGE Joint meeting 2021 - Program at a glance

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

This meeting was supported by:



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**SAIB-SAMIGE
ONLINE
PROGRAM**

MONDAY, NOVEMBER 1st 2021

Virtual Room Córdoba

9:00-9:15

OPENING CEREMONY

*María Isabel Colombo- SAIB President
Eleonora García Véscovi - 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 Chiabrando

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 2nd 2021

9:15-11:15 SYMPOSIA

Virtual Room Córdoba

S3-SAIB-PLANTS

Chairpersons: José Estévez-María Victoria Bussi

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 3rd 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 $i\gamma$ ($pi4p-5ki\gamma$) 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')₂ 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 4TH 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 5th 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 Martín

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- 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 YR¹, Guaytina EV¹, Pescio Lucila G², Favale NO², Santacreu BJ², Sterin-Speziale NB², Márquez MG¹.*

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^{1,2}, Alza, NP^{1,3}, Salvador GA^{1,2}.*

18:30-18:43

LI-C05-85. NUCLEAR CARBOXYLESTERASE IS A LIPASE INVOLVED IN LIPID-DROPLETS HOMEOSTASIS. *Lagrutta LC¹, Trejo SA^{2,3}, Ves-Losada A^{1,4}.*

18:45-18:58

LI-C06-175. SPHINGOSINE-1-PHOSPHATE RECEPTOR 2 (S1PR2) PROMOTES EPITHELIAL MESENCHYMAL TRANSITION IN DIFFERENTIATED MDCK CELLS THROUGH ERK1/2 SIGNALING INVOLVING β -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 γ PROTEIN. *Müller S¹, Del Veliz S¹, Rivera L¹, Uhart M¹, Bustos DM^{1,2}.*

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 S¹, Uhart M¹, Bustos DM^{1,2}.*

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- 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, Lucas E;

Gulias, Facundo; Ortola, María C; Galello, Fiorella A; Rossi, Silvia G; Bermudez Moretti, Mariana; Portela, Paula.

17:45-17:58.

ST-C02-251. **ORGANELLE-DERIVED SIGNALS CONTROL ALTERNATIVE SPLICING IN *ARABIDOPSIS THALIANA* VIA TOR KINASE.** Servi, L¹; Riegler, S²; Scarpin, MR³; Godoy Herz, MA¹;

Kubaczka, MG¹; Venhuizen, P²; Meyer, C⁴; Brunkard, JO³; Kalyna, M²; Barta, A⁵; and Petrillo, E¹.

18:00-18:13.

EN-C01-187. **IDENTIFICATION AND CHARACTERIZATION OF TeGA, A NOVEL THERMOACTIVE AND THERMOSTABLE GLUCOAMYLASE FROM *Thermoanaerobacter ethanolicus*.** Natael M. Wayllace, Nicolas Hedín, María V. Busi* and Diego F. Gomez-Casati*

18:15-18:28

NS-C01.39 **NSC-EXTRACELLULAR VESICLES FAVORS NEURONAL DIFFERENTIATION UNDER STRESS CONDITIONS.** Delgado S, Magaquian D and 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 M¹, Vazquez TJ¹, Castro P², González MJ², Couto AS¹

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^{1,3,3}, Aparicio G², Wandel-Petersen V¹, Depetris M³, Kratje R^{1,3}, Scorticati C², Oggero-Eberhardt M^{1,3}

19:00-19:13

GB-C03-172. **PHENOTYPE OF AN α -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 PYROPHOSPHORYLASES 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, Bettioli M, Vita C, Figoli C, Rodríguez 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 JI

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, Peruaní 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- 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 T.J., Calcaterra N.B., Weiner A.M.J.*

16:15-16:28

CB-C05-226. THE HIV-1 ACCESSORY PROTEIN Vpu 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 PSEDOVIRAL PARTICLES. *Bugnon Valdano M¹; Dizanzo MP¹; Leiva S¹; Banks L²; Gardiol D¹*

17:00-17:13

CB-C08-32. ALTERATIONS ON PDZ POLARITY PROTEIN EXPRESSION DURING HPV ONCOGENESIS. *Dizanzo MP¹, Bugnon Valdano M¹, Marziali F¹, Leiva S¹, Cavatorta AL¹, Banks L², Gardiol D¹.*

Virtual Room Córdoba

BIOTECHNOLOGY

Chairpersons: Eleonora Campos- Claudia Sttudert

15:15-15:28

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

María Elisa Vázquez¹, Brenda Zabala¹, Andrea C. Mesías¹, Cecilia Parodi¹, Cecilia Pérez Brandán¹, Leonardo Acuña¹
15:30-15:43

BT-C02-122. DEVELOPMENT OF COVID-19 MONOCLONAL ANTIBODIES AND RECOMBINANT PROTEINS AS REAGENTS FOR BIOMEDICAL RESEARCH AND DIAGNOSTIC TESTS. *Acuña Intriери ME¹, Deriane MA¹, Miller C¹, Czibener C², Correa E³, Cragnaz L³, Guerra L³, Rodríguez S³, Goldbaum FA¹, Seigelchifer M³, Comerci DJ², Montagna G², Cerutti ML¹*

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 PS¹.*

16:00-16:13

BT-C04-246. BIOTECHNOLOGICAL STRATEGIES TOWARD AN AROMA KETONE. *Ceccoli RD¹, Bianchi DA², Rial DV¹.*

16:15-16:28

BT-C05-257. PLOMBOX: A DEVICE FOR OPEN-SOURCE METROLOGY TO FIGHT LEAD CONTAMINATION IN DRINKING WATER. *Gándola Y^{*1,2}, Alvarez M^{*1}, Gasulla J^{1,3}, Nadra AD¹, 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

16:45-16:58

MI-C22-308. **UTILIZATION OF *Lactobacillus plantarum* AND *Oenococcus oeni* STRAINS TO APPLY IN FRUITS AND GRAPE JUICE: PRESERVATIVE AND HEALTH BENEFICIAL POTENTIAL.**

Del Valle Rivero L, Morales MR, Rodriguez Vaquero MJ, Saguir FM

17:00-17:13

MI-C023-309. **UTILIZATION OF AUTOCHTHONOUS STRAINS FROM WINERY WASTE AND GRAPE MUST AS STARTER CULTURES FOR WINEMAKING IN NORTHERN ARGENTINA.**

Morales MR, Rivero L, Saguir F

Surface-active agents or surfactants are amphiphilic molecules that contain hydrophilic and hydrophobic groups in their structure. Because of this nature, surfactants are able to absorb at air-water or oil-water interfaces, forming micelles. The ability to aggregate and form micelles makes these compounds capable of lowering surface tension. Surfactants play an important role in different industries and in bioremediation processes. Current surfactants are chemically synthesized but are toxic and only partially biodegradable. Since science is on the way to shift towards eco-friendly processes and technologies, biosurfactants produced by microorganisms are of great interest. The aim of this work was to describe the physicochemical properties of the surfactant produced by *Bacillus atrophaeus*. *B. atrophaeus* was cultivated in Standard Nutrient medium (g/L: NaCl 6; meat peptone 15; yeast extract 3; glucose 1) for 144 h at 30 °C and 120 rpm. Samples were taken every 24 h and the cell-free supernatant (CFS) was obtained by centrifugation at 10,000 xg for 10 minutes. Emulsification index with kerosene, drop collapsed and oil spreading assays using corn oil were performed on the CFS to detect the surfactant activity. The highest activity was observed at 72 h of culture, obtaining an emulsification index of 59%, an oil dispersion area of 14.543 cm² and a positive result in the collapsed drop assay. Once the preferred cultivation time was found, surfactant precipitation by different methods was attempted but a significant loss in the surfactant activity was observed. Therefore, the CFS was concentrated to 5x at 60 °C and several dilutions (2 ml/L to 200 ml/L) were done. Surface tension (ST) using the Du Noüy tensiometer and viscosity using the Ubbelohde viscometer were determined on the different CFS dilutions. Enzymatic and acid digestion assays were performed to partially characterize the obtained biosurfactant using Proteinase K 30 µ/mg (50 µl, 60 °C, 1 h), Lipolase 100 L 700 and 70 µ/mg (100 µl, 37 °C, 2 h) and concentrated HCl (10 µl, 100 °C, 10 min). To obtain the critical micellar concentration (CMC) of the surfactant, a ST vs Concentration (C) graph was done, showing a CMC of 12 g/L. To obtain the intrinsic viscosity, a Specific Viscosity/C vs C graph was done, resulting in 6.6186 g/cm³. Using the Mark-Houwink equation, a molecular weight of 5,271.37 g/mol was obtained. The emulsifying activity was lost only after the treatment with HCl, indicating that this biosurfactant is mainly of polysaccharide nature. The surfactant was stable at high temperatures, maintaining emulsifying activity after treatment under autoclave conditions (120 °C, 2 atm, 15 min). The results obtained indicate that *B. atrophaeus* produces a metabolite with interesting characteristics for its application in biotechnological processes. Further studies will focus on testing the ability of this compound to extract heavy metals and the potential use in bioremediation.

MI-P088-127

EVALUATION OF VIRULENCE OF CASSAVA ROOT PATHOGENIC *Fusarium* SPP. STRAINS ISOLATED FROM AFFECTED FARM IN MISIONES

*Martínez SA*¹, *Madrassi LM*^{1,2}, *Mónaco CP*³, *Zapata PD*^{1,2}, *Alvarenga AE*^{1,2}

¹UNaM, FCEQyN, INBIOMIS, Laboratorio de Biotecnología Molecular. ²CONICET. ³CIDEFI, FCAyF, UNLP.

Email: seba.martinez58@mail.com

Cassava (*Manihot esculenta* Crantz) is a commonly cultivated and consumed vegetable in Misiones and its production is carried out by small farmer families. However, these crops can be affected by cassava root rot disease (CRRD) produced by phytopathogenic fungi, generating economic losses. Several species of the genus *Fusarium* are phytopathogenic and they can produce CRRD. Nonetheless, little is known about these fungi's virulence in the Misiones province. The aim of this research is to determine *in vitro* the virulence of native *Fusarium* spp. strains. We assessed the virulence of four *Fusarium* spp. strains (1.1, 1.1A, 1.9A, and 1.12) isolated from plants with CRRD symptoms. Those plants were in a cassava crop near Gobernador Roca city (27°15'58.9"S-55°21'48.9"W). The assay was carried out using disinfected cassava tubers obtained from the local market. For disinfection, fresh roots were cleaned out of visible soil particles using tap water and then, submerged in a 10% commercial bleach solution for 1 hour. After that time, we took 4 mm-wide and 10 mm-depth punches along every tuber, with a 40 mm distance between each punch. The inoculation was performed utilizing 4 mm diameter punches taken from the edge of fungal colonies growing in potato dextrose agar and cultivated for 10 days at 28°C ±2°C. After inoculation, tubers were placed in an incubation chamber at 25°C ± 2°C for 10 days. Afterwards, the surface colonization (mm) and depth of the root rot (mm) were measured in each punch. With the obtained values, severity index was calculated as the percentage of colonized superficial root tissue and as the percentage of rotten root (depth of root rot / root diameter * 100). All the analyzed strains were capable of both, growing on the root's surface and producing rot symptoms in the pulp. Average surface colonization values varied between 11 - 14 mm (50 - 70% severity) and the depth of root rot varied between 10 - 17 mm (20 - 35% severity). A single strain (1.12) showed the highest severity values for both parameters. Present results indicate that evaluated *Fusarium* spp. strains may have the potential to cause root rot in cassava crops in Misiones, since they were all able to produce CRRD symptoms *in vitro*.

MI-P089-153

Aspergillus sp. V1 PROTEIN PRODUCTION IN VINASSE: PHYTOTOXICITY EVALUATION OF RESULTANT EFFLUENT BY GERMINATION AND ROOT ELONGATION IN *Lactuca sativa* L.

Del Gobbo LM, *Colin V*

Planta Piloto de Procesos Industriales Microbiológicos (PROIMI-CONICET), Tucumán, Argentina.

Email: veronicacollin@yahoo.com.ar

There is a need to find new ways to manufacture products by reusing nutrients present in materials initially considered as waste. In this sense, vinasse is a liquid acidic effluent with high values of COD (Chemical Oxygen Demand) which result from ethylic alcohol production. Due to its high organic load, there is no conventional treatment capable of reaching the legal standard that allows release of this effluent to water bodies. In a prior study, bioconversion of sugarcane vinasse in protein-rich fungal biomass that can be used as an alternative nutrient source to expensive aqua-feeds such as fishmeal and soybean meal was achieved. A filamentous fungus, *Aspergillus* sp. V1, was used for this purpose. *Aspergillus* sp. V1 was able to grow in vinasse under the following conditions: vinasse (100%) enriched with urea (2 g/L), inoculated with 1×10^6 spores/mL and incubated at 30 °C (150 rpm) for 96 h under sterile conditions. The resulting fungal biomass had a total protein of 41%, within the range required for aquaculture feed (21-55%), and the residual vinasse of this process had a neutral pH and COD reduction of 30%. The objective of the present work was to evaluate the phytotoxicity by seeds germination and root elongation of *Lactuca sativa* L of: residual vinasse from fungal biomass process (A); pure vinasse (B) and pure vinasse with urea (2 g/L) (C). Twenty-five *L. sativa* (var. Crespa Grand Rapids) seeds were placed on Petri dishes (100 mm) each containing filter paper (Whatman N°3) moistened with 4 mL of vinasses (A, B or C) and tap water as control. Petri dishes were incubated for 120 h in dark at 22 ± 2 °C. After this time, the number of germinated seeds was counted, and root length was measured. Results were reported as IC₅₀ (concentration at which 50% inhibition occurs) at 95% confidence intervals. The germination and root-growth bioassay enabled assessment of adverse effects of a toxic compound on germination and root growth at early stages of seed development. IC₅₀ values for the germination inhibition bioassay were 31.9, 20.9 and 20.4% (v/v) and for root elongation inhibition bioassay were 23.9, 11.2 and 5.6% (v/v) for A, B and C respectively. Our findings demonstrate that the exposure of *L. sativa* seeds to vinasse in which *Aspergillus* sp. V1 were grown (A) produced a less inhibitory effects than the exposure to crude vinasses (B and C) in terms of germination and root development. In addition, pure vinasse with urea (C) presented the highest level of inhibitory effects. With this, we can infer that *Aspergillus* sp. V1 reduces the phytotoxicity of the effluent. However, additional toxicity tests are required to have a better understanding of vinasses toxicity.

MI-P090-154

EFFECT OF PIPE MATERIAL ON THE DEVELOPMENT OF BIOFILMS IN DRINKING WATER DISTRIBUTION SYSTEMS (DWDS)

Corimayo S, Rajal V, Cruz MC

INIQUI, Salta, Argentina. Facultad de Ingeniería – CIUNSa, Argentina. E-mail: mccruz@conicet.gov.ar

Biofilms developed on the inner-walls of drinking water pipes account for the 95% of microbial mass in these systems. They are considered a health risk as they could become a reservoir of pathogens and influence water quality stability. The pipe material is one of the main factors that determine biofilm attachment and further formation and development. Despite the water alteration they can produce, these biofilms are poorly studied due to limited access to actual pipes. The aim of this work was to evaluate the effect of pipe material on the formation of biofilms in the DWDS, using a new-designed and easy to handle coupon system, and their importance as reservoir of pathogenic organisms in the drinking water microbiome. Coupons of 15 mm diameter and 2 mm thickness were built with materials commonly used in DWDS: PVC (polyvinyl chloride), PP (polypropylene) and Cem (cement). These coupons were sterilized and incubated in a concrete cistern (196350 L), exposed to natural conditions for 7 months: March-October (7M) and 11 months: March-February (11M). Biofilm samples grown on the coupon surface were detached using sonication and vortex in 5 mL PBS 1×. From that elution, the number of culturable organisms was compared using: Agar Plate Count (APC) at 37 °C and Reasoner 2A (R2A) agar at 21 °C. An enriched biofilm elution was used to determine the presence of pathogenic and/or opportunistic organisms: *Escherichia coli* (mTEC), *Pseudomonas aeruginosa* (Cetrimide), *Salmonella* spp. (SS agar). The samples incubated for 7M, showed statistically significant differences in the number of cells grown on APC between the pipe materials (p -value = 0.001). It was higher in Cem (2.8×10^3 CFU/cm²) compared to PVC (1.3 CFU/cm²) and PP (21.4 CFU/cm²). In contrast, on R2A plates no significant differences were found between the materials (p -value > 0.05). The 11M samples showed significant differences in bacteria count on both media. On APC, colony count was higher on PP (8.3 CFU/cm²) compared to Cem (2.3 CFU/cm²) and no-growth was observed on PVC (p -value = 0.02). On R2A, the colony number was higher in Cem (117.5 CFU/cm²) followed by PVC (27.5 CFU/cm²) and PP (6.03 CFU/cm²). A higher cell counting was observed on R2A in 7M compared to 11M (p -value = 0.003); whereas there was no difference of bacteria count on APC for both time periods (p -value > 0.05). Samples 7M and 11M showed presence of organisms on Cetrimide and SS agars on both PVC and Cem. On PP, growth was only observed on Cetrimide in the 7M samples. Surprisingly, the higher abundance of microorganisms was found in the 7M samples. These results could be due to the exposure to actual environmental factors, such as increased disinfectant effect in the 11M period. The growth of organisms in the specific medium indicates presence of pathogenic and/or opportunistic microorganisms in these biofilms.

MI-P091-166

INOCULATION OF *Brachypodium distachyon* WITH THE RECOMBINANT BACTERIA *Pseudomonas fluorescens* MME3-SyNOS INCREASES ROOT DEVELOPMENT

Labarth MM^{1,2}, Maroniche GA^{1,2}, Correa-Aragunde N^{1,3}, Foresi N^{1,3}, Lamattina L^{1,3}, Creus CM¹

¹CONICET, Argentina. ²Facultad de Ciencias Agrarias, Universidad Nacional de Mar del Plata (UNMdP), Argentina.

³Instituto de Investigaciones Biológicas, Facultad de Ciencias Exactas y Naturales, UNMdP, Argentina.

E-mail: mercedeslabarthe@gmail.com