



*LVI SAIB Meeting*



*XV SAMIGE Meeting*

**SAIB-SAMIGE Joint Meeting**  
*2020 on line*

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Instituto de Agrobiotecnología del Litoral  
(IAL- CONICET)  
Facultad de Bioquímica y Ciencias Biológicas  
Universidad Nacional del Litoral

## **DELEGATES OF SAIB SCIENTIFIC SESSIONS**

Cell Biology

**Javier Valdez Taubas**

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

Lipids

**Nicolás Favale**

Instituto de Química y Fisicoquímica Biológicas  
(IQUIFIB-CONICET)  
Facultad de Farmacia y Bioquímica  
Universidad de Buenos Aires

Plants  
**José M Estevez**  
Fundación Instituto Leloir  
(FIL-IIBBA CONICET)

Microbiology  
**Augusto Bellomio**  
Instituto Superior de Investigaciones Biológicas  
(INSIBIO-CONICET)  
Facultad de Bioquímica, Química y Farmacia.  
Universidad Nacional de Tucumán

Signal Transduction  
**Vanesa Gottifredi**  
Fundación Instituto Leloir  
(FIL-IIBBA CONICET)

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Universidad Nacional de Mar del Plata

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Naturales  
(IQUIBICEN-CONICET)  
Universidad de Buenos Aires

**SAIB-SAMIGE  
ON LINE  
PROGRAM**

**MONDAY NOVEMBER 2, 2020**

**9:15-9:30**

**OPENING CEREMONY**

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

**9:30-10:30**

**SAIB-SAMIGE PLENARY LECTURE**

**Rotem Sorek**

Weizmann Institute of Science, ISRAEL  
*"The immune system of bacteria: Beyond CRISPR"*  
Chairpersons: Claudio Valverde- Andrea Smania

**11:00-13:00**

**YOUNG INVESTIGATORS SYMPOSIUM I**

Chairpersons: Silvia Moreno and Leonardo Curatti

**Luis Mariano Polo**

IHEM-CONICET, Facultad de Medicina, UNC  
*"DNA-protein interactions involved in single strand DNA-break repair"*

**Paula Tribelli**

IQUIBICEN. Facultad de Ciencias Exactas y Naturales, UBA  
*"Staphylococcus aureus Lpl lipoproteins trigger human host cell invasion via activation of Hsp90 receptor"*

**Corina Fusari**

Centro de Estudios Fotosintéticos y Bioquímicos, CONICET-UNR  
*"Genetic regulation of metabolic and physiological traits in Arabidopsis thaliana"*

**Betina Agaras**

Lab. de Fisiología y Genética de Bacterias Beneficiosas para Plantas – UNQ  
*"Autochthonous isolates from the Pseudomonas genus: evaluation of their plant probiotic traits for the development of agricultural bio-inputs"*

**14:00-16:00**

**ORAL COMMUNICATIONS**

Cell Biology I  
Microbiology I  
Plants I

**16:30-18:30**

**ORAL COMMUNICATIONS**

Microbiology II  
Biotechnology I

**00:00-23:59**

**ePOSTERS**

Cell Biology (CB P01/14)

Lipids (LI P01/08)  
Microbiology (MI P01/68)  
Plants Bioch. and Mol. Biol. (PL P01/26)  
Signal Transduction (ST P01/07)  
Biotechnology (BT P01/26)  
Enzymology (EN P01/08)  
Neuroscience (NS P01/03)  
Structural Biology (SB P01/P03)

**TUESDAY NOVEMBER 3, 2020**

**9:30-11:30**

**YOUNG INVESTIGATORS SYMPOSIUM II**

*Chairpersons: Federico Sisti-Rosana de Castro*

**Alfonso Soler Bistue.**

Instituto de Investigaciones Biotecnológicas, UNSAM

*“Genomic strategies to rationally reprogram bacterial growth”*

**Betiana Garavaglia.**

Instituto de Biología Molecular y Celular de Rosario (IBR) - UNR

*“General stress response proteins from Xanthomonas citri subsp. citri\_ involved in stress adaptation and virulence”*

**Matías D. Asención Diez.**

Instituto de Agrobiotecnología del Litoral CCT-Santa Fe

*“Glucosamine in rhodococci. From metabolism to enzyme precision synthesis”*

**Daiana Capdevila.**

Fundación Instituto Leloir.

*“Role of conformational entropy in allostery: new insights into bacterial transition metal and polysulfide”*

**12:00-13:00**

**SEBBM PLENARY LECTURE**

**Manuel Serrano**

IRB Barcelona- SPAIN

*“Understanding and controlling cellular identity and plasticity”*

*Chairpersons: María Isabel Colombo-Gabriela Salvador*

**14:00-16:00**

**ORAL COMMUNICATIONS**

Biotechnology II

Lipids

Microbiology III

**16:30-18:30**

**ORAL COMMUNICATIONS**

Cell Biology II

Plants II

Signal Transduction and Structural Biology

**00:00-23:59**

**ePOSTERS**

Cell Biology (CB P01/14)

Lipids (LI P01/08)

Microbiology (MI P01/68)  
Plants Bioch. and Mol. Biol. (PL P01/26)  
Signal Transduction (ST P01/07)  
Biotechnology (BT P01/26)  
Enzymology (EN P01/08)  
Neuroscience (NS P01/03)  
Structural Biology (SB P01/P03)

**WEDNESDAY, NOVEMBER 4<sup>th</sup> 2020**

**9:30-10:30**

**CONO SUR PLENARY LECTURE**

**Dario Zamboni.**

San Pablo University. BRASIL

*“Manipulation of host signaling pathways by Leishmania RNA Virus 1”.*

*Chairpersons: María Isabel Colombo-Eleonora García Vescovi*

**11:00-13:00**

**ROUND TABLE**

*“Scientific policies in Argentina”*

*Chairpersons: María Isabel Colombo-Eleonora García Vescovi*

**Fernado Peirano**

ANPIDTYI President-ARGENTINA

**Ana María Franchi**

CONICET President-ARGENTINA

**Roberto Salvarezza**

Science, Technology and Innovation Minister-ARGENTINA

**14:00-16:00**

**ORAL COMMUNICATIONS**

Microbiology IV  
Enzymology

**16:30-18:30**

**ORAL COMMUNICATIONS**

Cell Biology III  
Plants III  
Microbiology V

**00:00-23:59**

**ePOSTERS**

Cell Biology (CB P01/14)  
Lipids (LI P01/08)  
Microbiology (MI P01/68)  
Plants Bioch. and Mol. Biol. (PL P01/26)  
Signal Transduction (ST P01/07)  
Biotechnology (BT P01/26)  
Enzymology (EN P01/08)  
Neuroscience (NS P01/03)  
Structural Biology (SB P01/P03)



**THURSDAY NOVEMBER 5, 2020**

**9: 30-11:30                      SARS-CoV-2 SYMPOSIUM**

*Argentine scientific developments to cope with the SARS-CoV-2 pandemic: Reinventing potentials*

*Chairpersons: José Luis Bocco and Laura Raiger-Iustman*

**Daniel Ghiringhelli.**

Laboratorio de ingeniería genética y biología celular y molecular-UNQ

*“Kits development associated with COVID-19 diagnosis”*

**Diego Chouhy**

Instituto de biología molecular y celular de Rosario –UNR

*“Development of methods for the molecular diagnosis of the SARS-CoV-2 virus by Real Time PCR”*

**Cecilia D’Alessio –Matías Blaustein**

*On behalf of Consorcio Anti-COVID*

*“Social distancing and strengthened research community efforts to fight pandemics: producing a low-cost SARS-CoV-2 antigen”*

**Mariana Viegas**

Laboratorio de virología -Hospital general de niños "RICARDO GUTIERREZ”

*“Argentine epidemiological surveillance of SARS-CoV2 in the NGS era”*

**12.00-12:30                      Closing Ceremony: Oral Communication Awards and BIOCELL Cover**

**16:00                                      SAMIGE ASSEMBLY**

**17.30                                      SAIB ASSEMBLY**

**ORAL COMMUNICATIONS**

**MONDAY NOVEMBER 2, 2020**

**14:00-16:00 CELL BIOLOGY I**

*Chairpersons: Cecilia Álvarez- Javier Valdez Taubas*

14:00-14:13

**CB-C01-017**

**FROM CARTOONS TO QUANTITATIVE MODELS IN GOLGI TRANSPORT**

*Nieto E, Quirós N, Mayorga LS*

14:15-14:28

**CB-C02-054**

**CSP DRIVES TRANS SNARE ASSEMBLY DURING ACROSOMAL EXOCYTOSIS**

*Flores Montero K, Berberían MV, Ruete MC*

14:30-14:43

**CB-C03-208**

**KCTD15, A NOVEL PROTEIN INVOLVED IN CELL TRAFFICKING**

*Zarelli VEP, Lopez de Armentia MM, Colombo MI*

14:45-14:58

**CB-C04-239**

**INTRACELLULAR TRAFFICKING OF INFLUENZA VIRUS M1 PROTEIN AT LATE STAGES OF THE INFECTIOUS CYCLE**

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

15:00-15:13

**CB-C05-237**

**THE HIV-1 ACCESSORY PROTEIN Vpu TARGETS HOST SLC1A5 (ASCT2) AMINO ACID TRANSPORTER**

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

15:15-15:28

**CB-C06-218**

**INTERACTION BETWEEN PROTEIN TYROSINE PHOSPHATASE 1B (PTP1B) AND EGFR AT ER-PM JUNCTIONS**

*Perez Collado ME, Arregui CO*

15:30-15:43

**NS-C01-202**

**INTERNEURONAL EXCHANGE AND FUNCTIONAL INTEGRATION OF SYNAPTOBREVIN VIA EXTRACELLULAR VESICLES**

*Vilcaes AA, Chanaday NL, Kavalali ET*

15:45-15:58

**CB-C07-004**

**BIOLOGICAL RELEVANCE OF 14-3-3 ACETYLATION DURING OSTEOGENIC LINEAGE DETERMINATION**

*Frontini-López YR, Uhart M, Bustos DM*

14:00-16:00

MICROBIOLOGY I

Chairpersons: Lucila Saavedra - Julia Pettinari

14:00-14:13

MI-C01-12

***Pseudomonas putida* BP01, A DARK-PIGMENTED ISOLATE WITH ANTIBACTERIAL ACTIVITY AGAINST PHYLLOSPHERIC PATHOGENS**

Sosa MF, Sobrero P, Juan H, Iriarte A, Valverde C, Agaras B

14:15-14:28

MI-C02-13

**FtsA PROTEIN OVEREXPRESSION INDUCES CELL MORPHOLOGY CHANGES AND GROWTH DEFECTS IN *Streptococcus pneumoniae***

Olivero NB, Reinoso-Vizcaíno NM, Cortes PR, Hernández Morfa M, Veening JW, Echenique J

14:30-14:43

MI-C03-14

**EFFECT OF EXTRA VIRGIN OLIVE OIL ON MOUSE GASTRIC MUCOSA AFTER *Helicobacter pylori* INFECTION**

Arismendi Sosa AC, Vega AE, Penissi AB

14:45-14:58

MI-C04-16

**STUDY OF THE GROWTH AND PRODUCTION OF *Yersinia enterocolitica* BIOFILM IN DIFFERENT MEAT JUICE CONCENTRATIONS**

Iriarte HJ, Lucero Estrada CSM

15:00-15:13

MI-C05-19

**ANTIBIOFILM ACTIVITY OF THE PHYTOCHEMICAL 1,8-CINEOLE AGAINST MULTIDRUG RESISTANT UROPATHOGENIC *Escherichia coli***

Vázquez NM, Mariani F, Torres PS, Moreno S, Galván EM

15:15-15:28

MI-C06-31

**AN INTEGRATIVE ANALYSIS OF THE POLYAMINE METABOLISM IN *Pseudomonas syringae*: DECODING ITS ROLES IN BACTERIAL PHYSIOLOGY**

Solmi L, Stalder S, Rosli HG, Pombo MA, Rossi FR, Romero FM<sup>1</sup>, Ruiz OA, Gárriz A

15:30-15:43

MI-C07-36

**SCREENING FOR *SALMONELLA* FACTORS REGULATING BIOFILM FORMATION**

Cisana P, Echarren ML, Soncini FC

15:45-16:00

MI-C08-46

**CHARACTERIZATION OF REPLICATION MODULES IN *Acinetobacter baumannii* PLASMIDS**

Sanchez RI, Morán-Barrío J, Viale AM

14:00-16:00

PLANTS I

Chairpersons: Cecilia Borassi - José Estévez

14:00-14:13

**PL-C01-2**

**ROLE OF HASTY IN THE MIRNA BIOGENESIS IN *ARABIDOPSIS***

*Cambiagno DA, Giudicatti AJ, Arce AL, Gagliardi D, Li L, Yuan W, Lundberg DS, Weigel D, Manavella PA*

14:15-14:28

**PL-C02-5**

**STUDY OF THE FUNCTION OF MED17 IN THE DNA DAMAGE RESPONSE AFTER UV-B**

*Giustozzi M, Freytes S, Cerdán P, Casati P*

14:30-14:43

**PL-C03-6**

**ANALYSIS OF E2FA PROTEIN IN THE RESPONSE OF *ARABIDOPSIS THALIANA* PLANTS TO UV-B RADIATION**

*Sheridan María Luján, Gomez María Sol, Casati, Paula*

14:45-14:58

**PL-C04-8**

**RELATIONSHIP BETWEEN FLAVONE SYNTHESIS AND SALICYLIC ACID METABOLISM**

*Serra P, Righini Aramburu S, Dillon F, Grotewold E, Falcone Ferreyra ML, Casati P*

15:00-15:13

**PL-05-33**

**TRANSCRIPTOMIC ANALYSIS REVEALS THE ACTION MECHANISM OF SIRODESMIN PL TOXIN IN *BRASSICA NAPUS*.**

*Pombo, Marina; Elliott, Candace; Rosli, Hernán Romero, Fernando; Gárriz, Andrés; Ruiz, Oscar; Idnurm, Alexander, Rossi, Franco*

15:15-15:28

**PL-C06-70**

**ON THE REGULATION OF *ARABIDOPSIS THALIANA* PHOSPHOENOLPYRUVATE CARBOXYKINASES**

*Rojas BE, Hartman MD, Figueroa CM, Iglesias AA*

15:30-15:43

**PL-C07-71**

**STUDY OF CELERY ENZYMES INVOLVED IN MANNITOL METABOLISM**

*Minen RI, Bhayani J, Liu D, Ballicora MA, Iglesias AA, Figueroa CM*

**16:30-18:30**

**MICROBIOLOGY II**

*Chairpersons: Andrea Smania - Osvaldo Yantorno*

16:30-16:43

**MI-C09-47**

**IDENTIFICATION OF AN HYDRAZONE CAPABLE OF INHIBITING THE PhoP/PhoQ VIRULENCE SYSTEM OF *Salmonella***

*Lobertti CA, Cabezudo, I, Furlán RLE, García Vescovi E*

16:45-16:58

**MI-C10-53**

**EFFECT OF NITROSATIVE STRESS UNDER MICROAEROBIC CONDITIONS IN *Pseudomonas extremaustralis* REVEALED BY TRANSCRIPTOME ANALYSIS**

*Solar Venero EC, Tribelli PM, López NI*

17:00-17:13

**MI-C11-58**

**A MULTIMERIC MATRIX-ASSOCIATED LECTIN (RapD) AFFECTS PROPER EXOPOLYSACCHARIDE PROCESSING IN *Rhizobium leguminosarum***

*Tarsitano J, Russo DM, Alonso L, Zorreguieta A*

17:15-17:28

**MI-C12-68**

**PLANT GROWTH-PROMOTING BACTERIA IMPROVES FRUIT YIELD AND QUALITY OF TOMATO (*Solanum lycopersicum*)**

*Almirón CC, Badin EE, Caset ML, Romero AM, Lespinard AR, Yaryura PM*

17:30-17:43

**MI-C13-75**

**AZOSPIRILLUM BRASILENSE SP245 AND PSEUDOMONAS FLUORESCENS A506 ASSOCIATE COOPERATIVELY IN DUAL-SPECIES BIOFILMS**

*Díaz PR, Valverde C, Creus CM, Maroniche GA*

17:45-17:58

**MI-C14-82**

**SUCROSE METABOLISM IN *Nitrosomonas europaea***

*Ferretti MV, Ballicora MA, Iglesias AA, Figueroa CM, Asencion Diez MD*

18:00-18:13

**MI-C15-94**

**CHARACTERIZATION OF TWO NEW GENES THAT REGULATE CONJUGATIVE PLASMID TRANSFER ON RHIZOBIA**

*Castellani LG, Luchetti A, Nilsson JF, Pistorio M, Torres Tejerizo GA.*

18:15-18:28

**MI-C16-95**

**PLANT GROWTH-PROMOTING RHIZOBACTERIA IMMOBILIZED IN BIODEGRADABLE POLYMERS AS POTENTIAL BIOFERTILIZERS FOR MAIZE CROPS**

*Fernández M, Pagnussat LA, Martínez R.D, Perez J, Francois N, Creus C.M*

**16:30-18:30**

**BIOTECHNOLOGY I**

*Chairpersons: Cecilia D'Alessio-Claudia Studert*

16:30-16:43

**BT-C01-27**

**THE ROLE OF ENGINEERED BACTERIAL OUTER MEMBRANE VESICLES IN CONFERRING PROTECTIVE IMMUNITY AGAINST CHAGAS DISEASE**

*María Elisa Vázquez, Andrea C. Mesías, Brenda Zabala, Joseph Spangler, Cecilia Parodi, Scott Walper, Leonardo Acuña, Cecilia Pérez Brandán.*

16:45-16:58

**BT-C02-28**

**PHENOLIC ALDEHYDES AND FURFURAL DEGRADING FUNGI FOR THE BIOLOGICAL PRETREATMENT OF LIGNOCELLULOSIC BIOMASS**

*Zanellati A, Spina F, Rodriguez F, Martin M, Dinuccio E, Varese GC, Scarpeci TE*

17:00-17:13

**BT-C03-103**

**LYOPHILES OF *PSEUDOMONAS SAGITTARIA* MOB-181 GROWN IN WASTE-BASED CULTURE MEDIUM IMPROVE GROUNDWATER Mn REMOVAL**

*Ciancio L, Vidoz M, Piazza A, Labanca C, Pacini V, Ottado J, Gottig N*

17:15-17:28

**BT-C04-116**

**ENHANCEMENT OF A MICROCYSTIN BIOSENSOR BY MUTANTS MOLECULAR SCREENING WITH VINA AND FOLDX.**

*Alba Posse Ezequiel, Bruque Carlos David, Gasulla Javier, Carriquiriborde Pedro, Nadra Alejandro Daniel.*

17:30-17:43

**BT-C05-136**

**THE INTERACTION BETWEEN THE METAL BINDING LOOP AND THE BACKBONE DETERMINES METAL-DIRECTED ACTIVATION OF MerR METALLOREGULATORS**

*Mendoza JI and Checa SK*

17:45-17:58

**BT-C06-159**

**ISOLATION OF ACTINOBACTERIA AS POTENTIAL BIOLOGICAL CONTROL AGENTS AGAINST SOYBEAN FUNGAL PATHOGENS**

*Villafañe DL, Bercovich BA, Gramajo H, Chiesa MA & Rodríguez EJ*

**TUESDAY NOVEMBER 3, 2020**

**14:00-16:00**

**BIOTECHNOLOGY II**

*Chairpersons: Eleonora Campos-Natalia Gottig*

14:00-14:13

**BT-C07-163**

**FUNCTIONAL FERMENTED BEVERAGES ENRICHED IN SELENO-AMINO ACIDS AND SELENO-NANOPARTICLES**

*Martínez FG, Moreno-Martin G, Madrid-Albarrán Y, Ordoñez FO, Pescuma M, Mozzi F*

14:15-14:28

**BT-C08-184**

**BIOCATALYTIC CHARACTERIZATION OF THREE BACTERIAL BAEYER-VILLIGER MONOOXYGENASES**

*Romina D. Ceccoli, Dario A. Bianchi, Daniela V. Rial*

14:30-14:43

**BT-C09-226**

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

*Gándola Yamila, Alvarez Macarena, Gasulla Javier and Nadra Alejandro D.*

14:45-14:58

**BT-C10-261**

**NOVEL PROTEASES FROM SEQUENCE-BASED METAGENOMICS OF DAIRY INDUSTRIES STABILIZATION PONDS**

*Irazoqui, J.M.; Eberhardt, M.F.; Amadio, A.*

15:00-15:13

**BT-C11-266**

**COMPARISON OF SARS-COV-2-SPIKE RECEPTOR BINDING DOMAIN PRODUCED IN *PICHTIA PASTORIS* AND MAMMALIAN CELLS**

*Idrovo Hidalgo T. on behalf of Argentinian AntiCOVID Consortium*

15:15-15:28

**BT-C12-282**

**Optimization of pH for L-Dopa production in bench-top scale stirred-tank bioreactor using a *Paraboeremia* strain**

*Peralta M P, Delgado O D, Lechner B E, Fariña J I*

**14.00-16:00**

**LIPIDS**

*Chairpersons: Martin Oresti-Nicolás Favale*

14:00-14:13

**LI-C01-10**

**UNCOVERING ENDOCANNABINOID (2-AG) PATHWAY REQUIRED TO MODULATE CHOLESTEROL METABOLISM IN *Caenorhabditis elegans***

*Hernández Cravero B, Vranych C, Prez G, de Mendoza D.*

14:15-14:28

**LI-C02-22**

**INTERSECTIONS BETWEEN ALPHA-SYNUCLEIN AND CHOLESTEROL: AN UNSOLVED CASE**

*Alza NP, Salvador GA*

14:30-14:43

**LI-C03-85**

**IMPLICATION OF SPHINGOSINE-1-PHOSPHATE RECEPTOR 2 (S1PR2) IN DIFFERENTIATION AND DEDIFFERENTIATION OF EPITHELIAL RENAL CELLS**

*Romero, DJ, Santacreu, BJ, Tarallo E, Favale, NO.*

14:45-14:58

**LI-C04-289**

**ENDOGENOUSLY SYNTHESIZED SPHINGOSINE-1-PHOSPHATE TRIGGERS CELL EXTRUSION IN MDCK CELLS**

*Santacreu BJ, Romero DJ, Pescio LG, Sterin-Speziale NB, Favale NO*

15:00-15:13

**LI-C05-81**

**MENADIONE-INDUCED OXIDATIVE STRESS ALTERS LIPID METABOLISM OF THE MATURE ADIPOCYTE**

*Funk MI, Conde MA, Alza NP, Salvador GA, Uranga RM*

15:15-15:28

**LI-C06-244**

**URSOLIC ACID INTERFERES LIPID DROPLET METABOLISM AND INHIBITS ROTAVIRUS INFECTION**

*Tohmé MJ, Caruso B, Wilke N, Colombo MI, Delgui LR*

**14:00-16:00**

**MICROBIOLOGY III**

*Chairpersons: Laura Raiger Iustman – Fernanda Pomares*

14:00-14:13

**MI-C17-104**

***bla*<sub>BioF</sub>, A NOVEL B2 METALLO- $\beta$ -LACTAMASE GENE FROM *PSEUDOMONAS* SP. ISOLATED FROM AN ON-FARM BIOPURIFICATION SYSTEM**

*Cafiero JH, Vacca C, Lozano MJ, Martini MC, Lagares A, Tomatis PE, Del Papa MF*

14:15-14:28

**MI-C18-106**

**INSIGHTS INTO THE CONTROL OF MEMBRANE LIPID HOMEOSTASIS IN FAPR-CONTAINING GRAM-POSITIVE BACTERIA**

*Machinandiaarena, F; Nakamatsu, L; Schujman, GE; de Mendoza, D; Albanesi, D*

14:30-14:43

**MI-C19-106**

**COMPARATIVE GENOMIC ANALYSIS OF THE *Fructobacillus* GENUS REVEALS IMPORTANT DIFFERENCES IN AMINO ACID METABOLISM**

*F. Mohamed, O. Ordoñez, R. Raya, F. Mozzi*

14:45-14:58

**MI-C20-130**

**COPING WITH OXIDATIVE STRESS IN EXTREME ENVIRONMENTS: DISTINCTIVE ROLES OF *ACINETOBACTER* SP. VER 3 SUPEROXIDE DISMUTASES**

*Steimbrüch B, Sartorio M, Bortolotti A and Repizo G*

15:00-15:13

**MI-C21-131**

**WHAT HAPPENS WHEN THE HEAVY METAL-RESISTANT MICROORGANISM *Fusarium tricinctum* M6 ENCOUNTERS Cu(II)?**

*Bonilla JO, Callegari EA, Paez MD, Gil RA, Villegas LB*

15:15-15:28

**MI-C22-132**

**BIOSYNTHESIS OF UNSATURATED FATTY ACIDS IN *ANEURINIBACILLUS MIGULANUS* ATCC 9999 AND ITS ROLE IN COLD ADAPTATION.**

*Barbona B, Scattolini A, Altabe S*

15:30-15:43

**MI-C23-143**



**BRADYRHIZOBIA ISOLATED FROM FIELD NODULES WITH INCREASED MOTILITY  
IMPROVE YIELD OF SOYBEAN CROPS**

*Iturralde ET, Colla D, Faura A, Lodeiro AR, Pérez Giménez J*

**16:30-18:30**

**CELL BIOLOGY II**

*Chairpersons: Malena Alvarez-Javier Valdez Taubas*

16:30-16:43

**CB-C08-032**

**CIN-INDEPENDENT CELL DEATH IN S PHASE INDUCED BY POL ETA DEPLETION**

*Siri OS, Federico MB, Calzetta NL, Martino J, De la Vega Páez MB, Gottifredi V*

16:45-16:58

**CB-C09-077**

**THE ROLE OF SPECIALIZED POLYMERASE IOTA IN THE DNA DAMAGE RESPONSE**

*Venerus Arbilla S, Mansilla SF\*, Bertolin A\*, De la Vega MB, Gottifredi V*

*\*Equal collaboration*

17:00-17:13

**CB-C010-170**

**UPREGULATION OF IMMUNOSTIMULATORY NON-CODING RNAs DURING  
THE CELLULAR RESPONSE TO STRESS**

*Gimenez M, Contreras NS, La Spina PE, Boccaccio GL, Fernandez-Alvarez, AJ*

17:15-17:28

**CB-C011-035**

**THE ALTERNATIVE SPLICING OF AN EXITRON DETERMINES THE SUBNUCLEAR  
LOCALIZATION OF THE ARABIDOPSIS DNA-GLYCOSYLASE MBD4L UNDER HEAT  
STRESS**

*Cecchini NM, Torres JR, Lescano I, Cobo S, Nota F, Álvarez ME*

17:30-17:43

**CB-C012-062**

**STUDY OF THE ROLE OF TCP TRANSCRIPTION FACTORS IN COTYLEDON OPENING  
AND EXPANSION IN RESPONSE TO ILLUMINATION**

*Alem AL, Gonzalez DH, Viola IL*

17:45-17:58

**CB-C013-101**

**CYTOCHROME *c* AS A MITOCHONDRIAL REGULATOR OF ARABIDOPSIS  
DEVELOPMENT**

*Canal MV; Mansilla N; Gras D; Gonzalez DH; Welchen E*

18:00-18:13

**CB-C014-200**

**SMAUG MEMBRANELESS ORGANELLES REGULATE mRNAs THAT ENCODE  
MITOCHONDRIAL ENZYMES**

*Boscaglia, Pascual, Pimentel, Aviv, Corbat, Pessoa, Plessis, Carmo-Fonseca, Grecco, Casado,  
Boccaccio, Thomas*

18:15-18:28

**CB-015-242**

**DROSOPHILA Me31B A NOVEL TYPE OF eIF4E INTERACTING PROTEIN IN P-BODIES**

*Vilardo E, Greco Hernández, Rivera Pomar R, Layana C*

**16:30-18:30**

**PLANTS II**

*Chairpersons: Elina Welchen - José Estévez*

16:30-16:43

**PL-C08-87**

**COUSINS LONG REMOVED: FUNCTIONAL CONSERVATION OF BEH  
TRANSCRIPTION FACTORS IN BRYOPHYTES AND ANGIOSPERMS**

*Mariano Garcia-Hourquet, Martin Mecchia, Ana Caño-Delgado, Santiago Mora-Garcia*

16:45-16:58

**PL-C09-97**

**DECIPHERING THE REDOX METABOLISM OF THE MAIZE-*Azospirillum brasilense*  
INTERACTION EXPOSED TO ARSENIC-AFFECTED GROUNDWATER**

*Peralta JM, Bianucci E, Romero-Puertas MC, Furlan A, Castro S, Travaglia C*

17:00-17:13

**PL-C10-109**

**PRETREATMENT OF WHEAT SEEDS WITH POLYAMINES MODULATES SEEDLING  
GROWTH BY REGULATING HORMONAL AND REDOX BALANCE**

*Gomez Mansur NM, Recalde L, De Diego N, Spíchal L, Cavar S, Pěňčík A, Novák O, Gallego SM,  
Benavides MP.*

17:15-17:28

**PL-C11-117**

**DIFFERENT ROLES OF MMR PROTEINS DURING THE IMMUNE RESPONSE IN  
ARABIDOPSIS THALIANA**

*Ramos RS, Spampinato CP.*

17:30-17:43

**PL-C12-120**

**IMPROVEMENT OF STRESS TOLERANCE IN TOBACCO PLANTS BY EXPRESSING  
CYANOBACTERIAL FLV2-FLV4 PROTEINS**

*Vicino P, Carrillo JB, Gómez R, Carrillo N, Lodeyro AF*

17:45-17:58

**PL-C13-121**

**RESPONSE OF MSH6 MISMATCH REPAIR PROTEIN TO LIGHT SIGNALS**

*V. Gonzalez and C. Spampinato*

18:00-18:13

**PL-C14-153**

**COMPLETE CHLOROPLASTIC AND MITOCHONDRIAL GENOMES OF A NATIVE  
TREE SPECIES AND STRATEGIES TOWARD END-TO-END CHROMOSOMAL  
ASSEMBLY**

*Maximiliano Estravis-Barcala, Tomás Moyano, María Verónica Arana, Rodrigo A. Gutiérrez,  
Nicolás Bellora*

**16:30-18:30**

**SIGNAL TRANSDUCTION and STRUCTURAL BIOLOGY**

*Chairpersons: Vanesa Gottifredi - Eduardo Ceccarelli*

16:30-16:43

**ST-C01-56**

**ACTJK, A TWO-COMPONENT SYSTEM OF *ENSIFER MELILOTI* INVOLVED IN ACID TOLERANCE**

*Vacca C, Albicoro FJ, Cafiero JH, Draghi WO, Lagares A, Del Papa MF.*

16:45-16:58

**ST-C02-11**

**AN INEFFICIENT RESOLUTION OF UNDER-REPLICATED DNA IN MITOSIS TRIGGER GENOMIC INSTABILITY**

*Calzetta NL, González Besteiro MA, Gottifredi V*

17:00-17:13

**ST-C03-63**

**14-3-3 AND HIPPO PATHWAY PROTEINS UPREGULATION DURING ADIPOGENESIS OF 3T3-L1 CELLS INDUCTION WITH GLP-1 ANALOGS**

*Del Veliz Samanta, Uhart Marina, Bustos Diego M.*

17:15-17:28

**ST-C04-210**

**PHOSPHOLIPASE D (PLD) 1 AND 2 EXPRESSION IN ABC CELLS, A NEW RETINAL PIGMENT EPITHELIUM CELL LINE**

*Bermúdez V, Asatryan A, Mukherjee PK, Giusto NM, Bazan NG, Mateos MV*

17:30-17:43

**SB-C01-187**

**REVISITING CHICKEN EGG WHITE: A GLYCOPROTEOMIC APPROACH.**

*Cavallero, G., Couto, A., Landoni, M.*

**WEDNESDAY 4, 2020**

**14:00-16:00**

**ENZYMOLOGY**

*Chairpersons: Germán Rosano - Eduardo Ceccarelli*

14:00-14:13

**EN-C01-98**

**CHARACTERIZATION OF SdGA, A COLD-ADAPTED GLUCOAMYLASE FROM SACCHAROPHAGUS DEGRADANS**

*Wayllace NM, Hedin N, Busi MV, Gomez Casati DF*

14:15-14:28

**EN-C02-102**

**UNDERSTANDING CARBON METABOLISM IN GREEN ALGAE: CHARACTERIZATION OF *CHLAMYDOMONAS REINHARDTII* PEPCK**

*Torresi F., Gomez-Casati D., Martín M.*

14:30-14:43

**EN-C03-144**

**DESIGN, SYNTHESIS, AND EVALUATION OF SUBSTRATE-ANALOGUE INHIBITORS OF *T. CRUZI* RIBOSE 5-PHOSPHATE ISOMERASE TYPE B**

*Gonzalez SN, Mills JJ, Maugeri D, Olaya C, Laguera BL, Enders JR, Sherman J, Rodriguez A, Pierce JG, Cazzulo JJ, and D'Antonio EL*

14:45-14:58

**EN-C04-207**

**INSIGHTS IN THE NADP<sup>+</sup> BINDING MODE OF BACTERIAL FERREDOXIN-NADP<sup>+</sup> REDUCTASES**

*Monchietti P, Ceccarelli EA, Catalano Dupuy DL*

**14:00-16:00**

**MICROBIOLOGY IV**

*Chairpersons: Estela Galván – Rodrigo Sieira*

14:00-14:13

**MI-C24-145**

**FROM SEED ENDOPHYTES TO PLANT MICROBIOMES: SEED-BORN BACTERIA THAT COLONIZE AERIAL TISSUES IN ALFALFA PLANTS**

*Erdozain BSA, López JL, Zuber NE, Pagnutti AL, Lozano MJ, Lagares A.*

14:15-14:28

**MI-C25-147**

**GENOME SEQUENCE, TAXONOMIC POSITION AND SYMBIOTIC GENES OF *Ensifer* spp. THAT NODULATE *D. virgatus* IN NORTHWEST ARGENTINA**

*Zuber NE<sup>2</sup>, Fornasero LV, Erdozain BSA, López JL, Lozano MJ, Del Papa MF, Lagares A*

14:30-14:43

**MI-C26-152**

**ENVIRONMENTAL BACTERIA FROM ARGENTINE PAMPAS WITH ABILITY TO DEGRADE GLYPHOSATE**

*Fiorella Masotti, Betiana S. Garavaglia, Ainelén Piazza, Natalia Gottig, and Jorgelina Ottado*

14:45-14:58

**MI-C27-162**

**GETTING CLOSER TO THE UNDERSTANDING OF THE COPPER-RESISTANCE MECHANISMS IN *Apiotrichum loubieri* M12**

*Bonilla JO, Callegari EA, Paez MD, Gil RA, Villegas LB*

15:00-15:13

**MI-C28-168**

**ORF319, A *SALMONELLA* ANTIVIRULENCE FACTOR THAT CONTROLS BIOFILM FORMATION**

*Vitor Horen L, Echarren ML, Soncini FC.*

15:15-15:28

**MI-C29-186**

**ANTIOXIDANT PEPTIDES RELEASED FROM SOYBEAN BY LACTIC ACID BACTERIA WITH PROTEOLYTIC ACTIVITY**

*Quiroga María, Babot Jaime Daniel, Bertani Milena, Argañaraz Martínez Eloy, Perez Chaia Adriana*

15:30-15:43

MI-C30-197

**PROTEOMIC AND PHYSIOLOGICAL CHARACTERIZATION OF COPPER EFFECT ON QUORUM SENSING REGULATION IN *PSEUDOMONAS CAPEFERRUM***

*Leguina AC, Lacosegliaz M, Fernández PM, Castellanos de Figueroa LI, Nieto Peñalver CG.*

16:30-18:30

**CELL BIOLOGY III**

*Chairpersons: Graciela Boccacio – Javier Valdez Taubas*

16:30-16:43

**CB-C016-084**

**GUANINE QUADRUPLEXES AS POTENTIAL REGULATORY ELEMENTS OF THE SARS-COV-2 VIRUS**

*Bezzi G, Piga E, Armas P*

16:45-16:58

**CB-C017-086**

**EFFECTS OF GENETIC POLYMORPHISMS ON RNA GUANINE QUADRUPLEX AFFECTING THE TRANSLATION HUMAN ONCOGENS**

*Bezzi G, Piga E, Armas P*

*Instituto de Biología Molecular y Celular de Rosario (IBR) – CONICET-UNR.*

17:00-17:13

**CB-C018-185**

**INFLUENCE OF CIRCULAR TARGET RNA TOPOLOGY ON miRNA STABILITY AND FUNCTION**

*Fuchs Wightman F, Lukin J, Giusti S, Refojo D, De la Mata M*

17:15-17:28

**CB-C019-255**

**MOLECULAR AND PHENOTYPIC ANALYSES OF SULFITE TOLERANT *S. CEREVISIAE* STRAINS CARRYING WILD TYPE OR ABERRANT PROMOTERS OF THE *SSU1* GENE**

*Raymond Eder ML, Bragato M, Rosa AL*

17:30-17:43

**CB-C020-284**

**AUGMENTED FERREDOXIN LEVELS IN TRANSPLASTOMIC TOBACCO PLANTS COUPLE ALTERNATIVE ELECTRON FLOW WITH ENDOGENOUS PHOTOPROTECTIVE MECHANISMS**

*Lobais C, Bilger W, Blanco NE*

17:45-17:58

**CB-C021-018**

**KNOCKDOWN OF THE CYTOCHROME P450 CYP4PR1 IN PYRETHROID-RESISTANT TRIATOMA INFESTANS INCREASES SUSCEPTIBILITY TO DELTAMETHRIN.**

*Dulbecco AB, Moriconi DE, Pedrini N.*

18:00-18:13

**NS-C02-096**

**DIFFERENTIAL GENE EXPRESSION TRIGGERED BY NEUROTOXIC INTOXICATION IN *TRIAMOMA INFESTANS*, VECTOR OF CHAGAS DISEASE**

*Traverso L, Latorre-Estivalis J, Fronza G, Lobbia P, Mougabure-Cueto G, Ons S*

16:30-18:30

MICROBIOLOGY V

Chairpersons: Rosana de Castro – Miriam Chalón

16:30-16:43

**MI-C31-204**

**MECHANISMS ASSOCIATED WITH PROLINE METABOLISM AND REDOX BALANCE IN PEANUT MICROSymbionTS EXPOSED TO WATER STRESS**

*Villa JF, Castro SM, Bianucci EC, Becker D, Furlan A*

16:45-16:58

**MI-C32-217**

**IN-DEPTH BIOINFORMATIC CRISPR RECONSTRUCTION FROM METAGENOMIC DATA DISCLOSE PHAGE-HOST EVOLUTION IN COMPLEX ENVIRONMENTS**

*Guerrero LD, Orellana E, Erijman L*

17:00-17:13

**MI-C33-229**

**HIGH POTENTIAL FOR THE BIOSYNTHESIS OF NEUTRAL LIPID STORAGE COMPOUNDS IN CHRONICALLY-POLLUTED SUBANTARCTIC SEDIMENTS**

*Galván V, Pascutti F, Sandoval N, Lanfranconi M, Arabolaza A, Álvarez H, Gramajo H, Dionisi HM*

17:15-17:28

**MI-C34-230**

**RECONSTRUCTING NEUTRAL-LIPIDS METABOLIC PATHWAYS OF A METAGENOMIC DATASET FROM USHUAIA BAY SEDIMENTS**

*Pascutti F≈, Sandoval N≈, Galván V≈, Lanfranconi M, Arabolaza A, Álvarez H, Gramajo H, Dionisi HM≈Contributed equally to this work*

17:30-17:43

**MI-C35-241**

**IMPACT OF ALTERNATIVE GRAPE MUSTS ON THE GROWTH OF INDIGENOUS NON-SACCHAROMYCES YEASTS**

*María Laura Raymond Eder and Alberto Luis Rosa*

17:45-17:58

**MI-C36-264**

**IS ESCHERICHIA COLI AN UNDERESTIMATED PATHOGEN IN CYSTIC FIBROSIS?**

*León, B; Casco, D; Leguizamón, M.; Serra, D.; Vita, C.; Zegarra Borlando, F; Bettioli, M.; D'Alessandro, V.; Rentería, F.; Bosch, A<sup>1</sup>; Yantorno, O*

18:00-18:13

**MI-C37-268**

**INSIGHTS INTO THE ROLE OF A PLASMID-BORNE TYPE I SECRETION SYSTEM (RssDM) OF RHIZOBIUM LEGUMINOSARUM**

*Russo, Daniela Marta; Downie J. Allan and Zorreguieta Angeles*

16:30-18:30

PLANTS III

Chairpersons: *Eliana Marzol – José Estévez*

16:30-16:43

**PL-C15-179**

***R. solanacearum* A21 BIOCONTROL BY THE ENDOPHYTIC BACTERIA  
*G. diazotrophicus* PaL5 IN RIO GRANDE TOMATO CULTIVAR.**

*Srebot MS, Julieta Gallozo, Tano J, Carrau A, Ripa MB, Bettucci GR, Martínez ML, Rodríguez MV, Orellano Elena G.*

16:45-16:58

**PL-C16-181**

**THE DNA GLYCOSYLASE ATMBD4L CONTROLS FLC EXPRESSION AND  
FLOWERING TIME IN ARABIDOPSIS THALIANA**

*Lescano CI; Nota MF; Álvarez ME*

17:00-17:13

**PL-C17-190**

**ELUCIDATING THE VIRAL MOVEMENT: THE ROLE OF ADV-P3 PROTEIN**

*Jaime CL, Sgro GG, Gioco JO, Farah CS, Dunger G*

17:15-17:28

**PL-C18-192**

**FIRST EVIDENCE OF *IN VIVO* DNA GLYCOSYLASE ACTIVITY OF THE ARABIDOPSIS  
AtMBD4L ENZYME**

*Torres JR, Lescano CI, and Alvarez ME*

17:30-17:43

**PL-C19-224**

**BNT1 IMMUNE RECEPTOR ALTERNATIVE SPLICED VARIANTS: POTENTIAL  
ROLE(S) IN PLASTID RESPONSES**

*Peppino Margutti M, Alvarez ME, Cecchini NM.*

17:45-17:58

**PL-C20-287**

**LOCAL NECROTIC SYMPTOMS ON TNVA-INOCULATED TOBACCO LEAF DOES NOT  
SUPPRESS SYSTEMIC SPREAD OF VIRUS INFECTION**

*García L, Martín AP, Martínez MF and Marano MR*

18:00-18:13

**PL-C21-267**

**THE STORY OF HaHB11: HOW TO BE A CROP AND NOT DIE IN THE ATTEMPT**

*Raineri J, Caraballo L, Franco M, Otegui ME, Chan RL*

lipid storage compounds in intertidal sediments polluted with aliphatic and polycyclic aromatic hydrocarbons, retrieved near a pier of a fuel storage facility. Homolog sequences of the key enzyme for WE and TAG biosynthesis, the wax ester synthase/acyl-CoA diacylglycerol acyltransferase (WS/DGAT), were identified in a metagenomic dataset from sediments of this site. Out of the 682,972 protein coding sequences of the dataset, 166 contained the wax ester synthase-like Acyl-CoA acyltransferase pfam domain commonly used to identify this enzyme (PF03007, E-value  $\leq 10^{-5}$ ), the 74% of them full-length. A WS/DGAT C-terminal domain (PF06974) was also detected in the majority of the sequences. The relative abundance of WS/DGAT homolog sequences in the dataset was  $1.42 \pm 0.18$  times the number of sequences of single-copy genes coding for ribosomal proteins (average  $\pm$  standard deviation of 12 genes), suggesting a high prevalence of WE/TAG biosynthesis potential in the microbial community. Sequences were highly diverse, as 108 and 44 clusters were recovered using distance thresholds of 80% and 40% identity at the amino acid level, respectively. Furthermore, 64% of the putative enzymes shared low to moderate identity values with WS/DGAT homologs identified in bacterial genomes, indicating the presence of novel organisms with WE/TAG biosynthesis potential in the sediments. The taxonomic assignment of scaffolds containing WS/DGAT homologs (1 to 43.4 Kb, N50 = 35 Kb) indicated that members of the Actinobacteria (46 %), Proteobacteria (33 %), Bacteroidetes (3 %) and Acidobacteria (1 %) phyla could be the origin of the majority of the scaffolds, while 17% of them could only be assigned to Bacteria. These results suggest the presence of phylogenetically diverse and abundant microbial populations with the potential to biosynthesize neutral lipid storage compounds in intertidal sediments of this polluted site. This study is the starting point for more in-depth analyses of these metagenomic fragments, in order to increase our understanding of the mechanisms used by these diverse bacterial populations to adapt to environmental stressors in this extreme environment.

## MI-C34-230

### RECONSTRUCTING NEUTRAL-LIPIDS METABOLIC PATHWAYS OF A METAGENOMIC DATASET FROM USHUAIA BAY SEDIMENTS

*Pascutti F*<sup>1,2</sup>, *Sandoval N*<sup>2,3</sup>, *Galván V*<sup>1,2</sup>, *Lanfranconi M*<sup>2</sup>, *Arabolaza A*<sup>1</sup>, *Álvarez H*<sup>2</sup>, *Gramajo H*<sup>1</sup>, *Dionisi HM*<sup>3</sup>

<sup>1</sup>Instituto de Biología Molecular y Celular de Rosario (IBR - CONICET) FBIOyF-UNR, <sup>2</sup>Instituto de Biociencias de la Patagonia (INBIOP-UNPSJB-CONICET), <sup>3</sup>Centro para el Estudio de Sistemas Marinos (CESIMAR-CONICET). <sup>2</sup>Contributed equally to this work

E-mail: fedepascutti450@gmail.com

Bacterial production of neutral lipids such as triacylglycerides, wax-esters and polyhydroxyalcanoates (TAG, WE and PHA-B, respectively) has been reported in *Gammaproteobacteria* and *Actinobacteria*. Within them, there is a short list of microorganisms with an in-depth study of the metabolic route involved in the synthesis of these compounds. To increase our knowledge of the potential of sediment bacteria in relation to this process, we analyzed homolog sequences of the key enzyme involved in TAG biosynthesis, the wax synthase/diacylglycerol acyltransferase (WS/DGAT), from a metagenomic dataset of a chronically-polluted Subantarctic coastal environment, and their genomic context. Almost half of putative WS/DGAT sequences were related to those identified in genomes from members of the *Actinobacteria* phylum, mainly from the *Acidimicrobiia*, *Actinobacteria* and *Nitriliruptoria* classes, while 34% of the sequences shared higher identity values with WS/DGAT homologs from Proteobacteria (*Gammaproteobacteria*, followed by *Alpha*-, *Beta*- and *Deltaproteobacteria*). Phylogenetic analyses showed that most metagenomic sequences were more closely related to sequences from genomes assembled from metagenomes, generated from environmental samples collected worldwide, including seawater, marine sediments, groundwater, seashore sand and freshwater, as well as biological wastewater treatment plants. Gene clusters potentially related to neutral lipid biosynthesis pathways were identified in scaffolds of the metagenomic dataset containing putative WS/DGAT sequences. A number of scaffolds shared highly similar genetic arrangements with genome fragments from a variety of organisms. Among them, some loci included genes that potentially encode other steps in neutral lipid biosynthesis, such as putative Type-2 PAPs and HAD-type hydrolases, glycerol- and acylglycerol- phosphate *O*-acyltransferases. In Proteobacteria, the gene clusters presented novel distributions of genes involved in TAG, WE and/or PHA, suggesting that they are intertwined. Most scaffolds contained genes from related metabolic pathways, such as fatty-acids metabolism and its regulation, implying that recycling of carbon might drive the flux to one or another neutral lipid synthesis. In addition, genes encoding osmoregulated periplasmic transporters for uptake of organic acids were present, revealing how the environment could also be influencing the studied process. This work is a pioneer study on the diversity of neutral lipid metabolic routes present in sediment bacteria based on metagenomic data. It enriches our knowledge of the metabolic potential of these microbial communities in relation to a process with an inherent biotechnological interest.

## MI-C35-241

### IMPACT OF ALTERNATIVE GRAPE MUSTS ON THE GROWTH OF INDIGENOUS NON-SACCHAROMYCES YEASTS

*María Laura Raymond Eder*<sup>1</sup> and *Alberto Luis Rosa*<sup>1</sup>

<sup>1</sup>IRNASUS-CONICET, Facultad de Ciencias Químicas, Universidad Católica de Córdoba, Argentina.

[marialraymond@hotmail.com](mailto:marialraymond@hotmail.com)

Spontaneous fermentations of must from Isabella (*Vitis labrusca* L.) grapes, harvested from Colonia Caroya vineyards, show ethanol contents ~1% (v/v) lower than expected from their initial concentration of total reducing sugars. This phenomenon,