

SAIB

54th Annual Meeting Argentine Society for Biochemistry and Molecular Biology
LIV Reunion Anual Sociedad Argentina de Investigación en Bioquímica y Biología Molecular



Paraná, Entre Ríos, Argentina
5 al 8 de Noviembre de 2018

CONICET



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FONDO NACIONAL DE INVESTIGACIONES
CIENTÍFICAS Y TECNOLÓGICAS



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DELEGATES OF SCIENTIFIC SESSIONS

CellBiology

Gustavo Chiabrando

CIBICI CONICET

Facultad de Ciencias Químicas
Universidad Nacional de Córdoba

Lipids

Hugo Gramajo

Facultad de Ciencias Bioquímicas y Farmacéuticas
Universidad Nacional Rosario
IBR-CONICET

Plants

Paula Casati

Facultad de Ciencias Bioquímicas y Farmacéuticas
Universidad Nacional Rosario
CEFOBI-CONICET

Microbiology

Monica Delgado

Instituto Superior de Investigaciones Biológicas - Instituto de Química Biológica "Dr. Bernabé Bloj"
Universidad Nacional de Tucumán

Signal Transduction

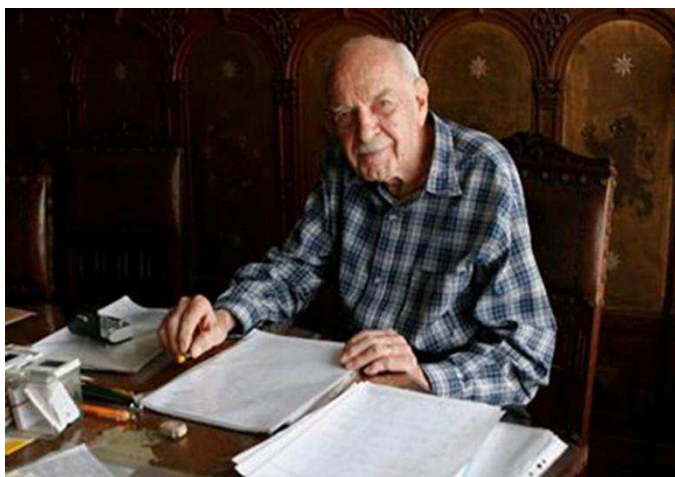
Mario Rossi

IBIOBA-CONICET

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2004-2005	ERNESTO PODESTA
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1998-1999	DIEGO DE MENDOZA
1996-1997	RICARDO BOLAND
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1992-1993	ARMANDO J. PARODI
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1981-1981	HECTOR TORRES
1980-1980	JUAN DELLACHA
1979-1979	MARCELO DANKERT
1978-1978	FEDERICO CUMAR
1977-1977	ANTONIO BLANCO
1976-1976	HÉCTOR BARRA
1975-1975	RAÚL TRUCCO
1973-1974	ALEJANDRO PALADINI
1972-1972	HORACIO PONTIS
1971-1971	ANDRES STOPPANI
1970-1970	RODOLFO BRENNER
1969-1969	RANWEL CAPUTTO
1965-1968	LUIS F. LELOIR

IN MEMORIAM OF RODOLFO R. BRENNER



Rodolfo R. Brenner, professor emeritus at the National University of La Plata and founding director of the Institute for Biochemical Research of La Plata, died on 3rd July 2018. He was an illustrious scientist and teacher of many generations of biochemists, with a distinguished career for his important discoveries in the field of lipid biochemistry.

He was born on 17th July 1922 in Banfield, Province of Buenos Aires, Argentina. As an outstanding student, he graduated at the Colegio Nacional de Buenos Aires in 1940 winning three gold medals due to his academic achievements. In 1946 he graduated as Doctor in Chemistry at the School of Exact, Physical and Natural Sciences (FCEFYN), of the University of Buenos Aires (UBA), obtaining another gold medal as best graduate. He had his first contact with lipids by means of his doctoral thesis 'Chemical composition of Argentinian olive oils', directed by Prof. Dr. Pedro Cattaneo.

During 1946 and 1954 he worked for the Department of Bromatology and Industrial Analysis of FCEFYN, first as a Graduate Assistant and then as an authorized Professor. At the same time, he was in charge of the Section of Industrial Toxicology at the Institute of Medical-Technological Investigations and at the Institute of Public Health. In this first period he studied the composition of lipids of several freshwater fish, a subject in which he directed five doctoral theses and published a dozen of original papers, mainly in the *Annals of the Argentine Chemical Association* and in *Industry & Chemist*.

In 1954 he obtained a postdoctoral fellowship of the British Council to work on 'Chemistry and Biochemistry of Lipids' with Professor John A. Lovern at the Torry Research Institute of Aberdeen in Scotland. Upon his return, he obtained by competitive examination the post of Head Professor of the Department of Biochemistry of the School of Medical Sciences until the year 1988. Almost from scratch, he created a research group in this Department which in the mid 1960s reached wide international renown, in special because of his works on biosynthesis of polyunsaturated fatty acids. In 1961, when the career of scientific investigator of the National Scientific and Technical Research Council (CONICET) was created, Dr. Brenner was accepted as Independent Investigator, and after subsequent promotions he became Superior Investigator in 1973. Being a prolific investigator, he directed 45 doctoral theses. He was the author of over 300 scientific works published in national and international journals, as well as many other communications presented at different conferences and scientific meetings. He lectured over 150 conferences in different countries of America, Europe and Asia.

In recognition of his work and career, he received more than 30 awards, among which we can highlight: Award of Fundación Campomar in 1972; Herrero Ducloux Award of the National Academy of Exact, Physical and Natural Sciences in 1974, Konex Prize granted to the best 5 biochemists of Argentina in 1983; Gold Medal "G. Burns and Von Euler" granted in London in 1985; Awards "Alfredo Sordelli" in 1985 and "JJ Kyle" in 1990 of the Argentine Chemical Association; Supelco AOCs Research Award of the American Oil Chemists' Society in Baltimore in 1990; TWAS 2001 Award in Basic Medical Sciences of the Academy of Sciences of the Third World in New Delhi, India, 2002; 2009 Houssay Career Award in the area of Chemistry, Biochemistry and Molecular Biology in Buenos Aires, 2010; and the Distinguished Investigator of Argentine Nation, also in 2010. He was honorary member of the Society of Biology of Tucumán from 1987, of the Argentine Society of Biochemical Investigations (SAIB) from 1990, and of the Argentine Society of Biophysics (SAB) also in 1990.

He was Senior Investigator Emeritus of CONICET and Head Professor Emeritus of UNLP. He held the position of Established Academic of the National Academy of Exact, Physical and Natural Sciences, of the National Academy of Sciences of Buenos Aires, and of the National Academy of Pharmacy and Biochemistry, as well as the Medicine Academy of Córdoba, Argentina.

It is worth mentioning his productive role in the management and promotion of science and university teaching. In 1965, together with Drs. Luis F. Leloir, Andrés Stoppani and Federico Cumar created the Argentine Society of Biochemical Research (SAIB), being its President in the period 1971-72. He was Counselling Director of CONICET, Adviser and Substitute Dean of the School of Medical Sciences, UNLP, and member of several scientific and academic committees of CONICET, UNLP, UBA and the Committee of Scientific Research (CIC) of the Province of Buenos Aires, Argentina. He was the South American representative at the Steering Committee of the International Conferences on the Bioscience of Lipids (ICBL). Among his achievements

and works, one of the most important ones was the creation (1982) and subsequent consolidation of the Institute of Biochemical Research of La Plata (INIBIOLP), of which he was the Director until 2003. Since 2015, this institution is called “Prof. Dr. Rodolfo R. Brenner” in recognition of his career.

He will remain for ever in the memory of all of us who had the privilege of knowing him and receiving his teaching.

Horacio A. Garda

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Schedule	Monday November 5	Tuesday November 6	Wednesday November 7	Thursday November 8
9:00- 11:00 hs		Oral Communications * Room 1 <i>Plants</i> (PL-C01 to PL-C09) <i>Biotechnology</i> (BT-C01) Room 2 <i>Microbiology</i> (MI-C01 to MI-C08) <i>Enzymology</i> (EN-C01 and EN-C02) Room3 <i>Lipids</i> (LI-C01 to LI-C10)	Oral Communications * Room 1 <i>Cell Biology</i> (BC-C01 to BC--C10) Room 3 <i>Microbiology</i> (MI-C09 to MI-C16) <i>Biotechnology</i> (BT-C02and BT-C03)	Oral Communications * Room 1 <i>Plants</i> (PL-C10 to PL-C19) Room 3 <i>Signal Transduction</i> (ST-C01 to ST-C10)
11:00-11:30 hs		COFFEE-BREAK		
11:30-12:30 hs		Conference ** Andrés Aguilera Room A	“HectorTorres” Conference Sebastian Kadener Room A	Conference Miguel Ballicora Room A
12.30- 14:30 hs		LUNCH TIME		
14:30-16:30 hs		Congress Accreditation	Symposia <i>Microbiology*</i> Room A <i>Protein Kinases*</i> Room 1 <i>Plant Biotechnology*</i> Room 3	Symposia <i>Plant**</i> Room A <i>Cell Biology**</i> Room 3 <i>Young investigators*</i> Room 1
16:30-17:30 hs	POSTERS			
17:30-18:30 hs	Opening Ceremony <i>In memoriam of</i> Rodolfo Brenner	PL-P01 to PL-P15 BC-P01 to BC-P15 Mi-P01 to Mi-P20	COFFEE –BREAK LI-P01 to LI-P07 SB-P01 to SB-P03 EN-P01 to EN-P13 ST-P01 to ST-P07 BT-P01 to BT-P16	PL-P16 to PL-P32 BC-P16 to BC-P30 NS-P01 to NS-P03 MI-P21 to MI-P39
18:30-19:30 hs	“Alberto Sols” Conference ** Crisanto Gutierrez Room A	“Ranwel Caputto” Conference Claudio Fernández Room A	Conference ** SeongWook Yan Room A	Closing Lecture Conference** Pedro Aramendia Room A
19:30 hs				Closing Ceremony Room A
	Cocktail 20 hs		SAIB Assembly 19:45 hs	Pizza Party 21:30 hs

*spanish

** english

SAIB 2018

MONDAY, November 5, 2018

14:30-17:30 REGISTRATION

17:30-18:00 OPENING CEREMONY

Silvia Moreno

SAIB President

Room A

18:00-18:30 IN MEMORIAM OF RODOLFO BRENNER

Horacio Garda

INIBIOLP
Universidad Nacional de La Plata

Chairperson: Hugo Gramajo

Room A

18:30-19:30 PLENARY LECTURE ALBERTO SOLS

Crisanto Gutierrez

Factors linking genome replication, cell proliferation and chromatin dynamics

*Centro de Biología Molecular Severo Ochoa (CSIC-UAM).
Madrid, España*

Chairperson: Paula Casati

Room A

20:00 WELCOMECOCKTAIL

TUESDAY, November 6, 2018

09:00-11:00 ORAL COMMUNICATIONS

Room 1: Plants (PL-C01 to PL-C09); **Biotechnology** (BT-C01)

Room 2: Microbiology (MI-C01 to MI-C08) **Enzymology** (EN-C01 and EN-C02)

Room 3: Lipids (LI-C01 to LI-C10)

ROOM1

Chairpersons: Maria Elena Alvarez and Maria Lorena Falcone Ferreyra

9:00-9:12

PL-C01

ROLE OF THE MIR394 PATHWAY IN THE REGULATION OF FLOWERING TIME IN *Arabidopsis* AND MAIZE

Bernardi Y; Ponso A; Medrano F; Vegetti A; Dotto M, Laboratorio de Biología Evolutiva y Molecular de Plantas, Facultad de Ciencias Agrarias, UNL, e-mail: mdotto@fca.unl.edu.ar

9:12-9:24

PL-C02

ROLES OF THE SUBUNIT 17 OF MEDIATOR COMPLEX IN THE UV-B INDUCED DNA DAMAGE RESPONSE

Giustozzi M; Jaskolowski A; Cerdán P; Casati P, Centro de Estudios Fotosintéticos y Bioquímicos (CONICET-UNR). Fundación Instituto Leloir, e-mail: gisutozzi@cefobi-conicet.gov.ar

9:24-9:36

PL-C03

FINE TUNING OF ARGONAUTE 1 STABILITY IS REGULATED BY CURLY LEAF

Re DA; Cambiagno DA; Arce AL; Tomassi AH; Manavella PA, Instituto de Agrobiotecnología del Litoral, UNL – CONICET. e-mail: delfina.re@santafe-conicet.gov.ar

9:36-9:48

PL-C04

DIVERGENT ROLES FOR AN ANCESTRAL HDZIP-I GENE OF *Marchantiapolyomorpha*

Romani F¹; Florent S²; Bowman JL²; Moreno JE¹, ¹ Inst. Agrobiotecnología del Litoral (UNL-CONICET). Santa Fe-ARG. ²Monash University. Australia .e-mail: javier.moreno@santafe-conicet.gov.ar.

9:48-10:00

PL-C05

PHENOTYPIC CHARACTERIZATION OF ATMSH7 DEFICIENT PLANTS

Chirinos Arias MC; Spampinato CP, Centro de Estudios Fotosintéticos y Bioquímicos (CEFOBI, CONICET-UNR), Suipacha 570, 2000 Rosario, e-mail: chirinos@cefobi-conicet.gov.ar

10:00-10:12

PL-C06

EPIDERMIS SPECIFIC EPIGENETIC MODIFICATIONS IN THE *Arabidopsis thaliana* ROOT UNDER SALT STRESS CONDITIONS

Beyrne CC; González RM; Iusem ND, IFIByNE – CONICET and FCEN – UBA, e-mail: cebeyrne@fbmc.fcen.uba.ar

10:12-10:24

PL-C07

SALICYLIC ACID HYDROXYLATION IN MAIZE

Righini Aramburu S; Falcone Ferreyra ML; Casati P. Centro de Estudios Fotosintéticos y Bioquímicos (CONICET-Universidad Nacional de Rosario, e-mail: righini@cefobi.gov.ar

10:24-10:36

PL-C08

OVEREXPRESSION OF AN ASPARTIC PROTEASE INCREASES DROUGHT TOLERANCE IN *Arabidopsis thaliana*

Dippolito S; Guevara MG; Frey ME; Tonon CV., Instituto de Investigaciones Biológicas, e-mail: dippolit@mdp.edu.ar

10:36-10:48

PL-C09

INSIGHTS INTO THE CHLOROPLASTIC UNFOLDED PROTEIN RESPONSE

Cantoia A; Ceccarelli EA; Rosano GL, Instituto de Biología Molecular y Celular de Rosario (IBR-CONICET-UNR) – Rosario, Argentina, e-mail: cantoia@ibr-conicet.gov.ar

10:48-11:00

BT-C01

ENHANCED DROUGHT RESISTANCE OF *Nicotiana tabacum* BY COMPARTMENTALIZED MAIZE MALIC ENZYME EXPRESSION

Oitaven P; Müller G; Lara MV; Drincovich MF, Centro de Estudios Fotosintéticos y Bioquímicos (CEFOBI; CONICET-UNR). Rosario. Argentina, e-mail: oitaven@cefobi-conicet.gov.ar

ROOM2

Chairpersons: Claudia Studdert and Andrea Smania

9:00-9:12

MI-C01

IDENTIFICATION OF A *Streptomyces* NATURAL PRODUCT WITH POTENTIAL ANTI-VIRULENCE PROPERTIES

Bercovich BA; Bruna RE; Carabajal MA; Gramajo H; Rodríguez EJ; García Vescovi E, Instituto de Biología Molecular y Celular de Rosario (CONICET-UNR), e-mail: bercovich@ibr-conicet.gov.ar

9:12-9:24

MI-C02

***Salmonella*-SPECIFIC TRANSCRIPTION REGULATOR AFFECTING BIOFILM FORMATION AND VIRULENCE**

Vitor-Horen L; Echarren ML; Figueroa NR; Soncini FC, Instituto de Biología Molecular y Celular de Rosario, e-mail: luisinavitorh@gmail.com

9:24-9:36

MI-C03

ROLE OF RadA FACTOR IN THE GENETIC RECOMBINATION OF *Pseudomonas aeruginosa*

Moro C; Borgono VM; Monti MR; Argaraña CE, CIQUIBIC-CONICET, Dpto de Química Biológica, R Caputto. Fac de Cs Químicas, UNC. Córdoba, Argentina, e-mail: cmlmoro@gmail.com

9:36-9:48

MI-C04

BIOCHEMICAL CHARACTERIZATION OF CYCLOPHILINS IN *Brucella*

Muruaga EJ; Buffa GN; Briones G; Roset MS, Instituto de Investigaciones Biotecnológicas Dr. Rodolfo Ugalde; Universidad Nacional de San Martín, e-mail: emuruaga@iibintech.com.ar

9:48-10:00

MI-C05

***Bordetellabronchiseptica*BdcA REGULATES BIOFILM FORMATION IN A BrtA-DEPENDENT MANNER**

Ambrosis N; Fernandez J; Sisti F, IBBM, CCT La Plata CONICET, Dto. Cs. Biológicas. FCE. UNLP. La Plata, Buenos Aires, e-mail: nambrosis@hotmail.com

10:00-10:12

MI-C06

CHARACTERIZATION OF THE FIRST HOMOMERIC MULTIDOMAIN ACETYL-COA CARBOXYLASE FROM *Saccharopolyspora erythraea*

Livieri AL; Navone L; Gramajo H; Rodriguez E, IBR- Conicet. Facultad de Ciencias Bioquímicas y Farmacéuticas. UNR, e-mail: livieri@ibr-conicet.gov.ar

10:12-10:24

MI-C07

CATALASE ACTIVITY OF *Acinetobacter* sp. VER3 IS ESSENTIAL FOR PROTECTION AGAINST PEROXIDE AND UV

Sartorio MG; Steimbrüch B; Cortez N, IBR, Instituto de Biología Molecular y Celular de Rosario, FCByF, UNR & CONICET, e-mail: sartorio@ibr-conicet.gov.ar

10:24-10:36

MI-C08

A *Salmonella*-SPECIFIC TRANSCRIPTION FACTOR MODULATES BIOFILM FORMATION IN THE ENVIRONMENT

Tulin G; Soncini F, Instituto de Biología Molecular y Celular de Rosario, CONICET-UNR, Rosario, AR, e-mail: tulin@ibr-conicet.gov.ar

10:36-10:48

EN-P01

FUNCTIONAL CHARACTERIZATION OF ATYPICAL THIOREDOXINS FROM ENTAMOEBA HISTOLYTICA

Arias DG; Birocco F; Sasoni N; Guerrero SA; Iglesias AALaboratorio de Enzimología Molecular- IAL-UNL-CONICET, Santa Fe.E-mail: darias@fbc.unl.edu.ar

10:48-11:00

EN-C02

BIOCHEMICAL AND GENETIC CHARACTERIZATION OF PYRUVATE DECARBOXYLASE FROM THE YEAST *CANDIDA ZEMPLININA*

Conti F; Raymond Eder ML; Rosa AL, IRNASUS-CONICET, Facultad de Ciencias Químicas, Universidad Católica de Córdoba. Argentina. E-mail: panchoconti@gmail.com

ROOM 3

Chairpersons: Gabriela Salvador and Maria Corvi

9:00-9:12

LI- C01

THE NUCLEAR-LIPID-DROPLET PROTEOME

Lagrutta LC¹; Layerenza JP¹; Trejo S^{2,3}; Ves Losada AI⁴, ¹INIBIOLP-CCT-La Plata-CONICET-UNLP; ²UAB, Spain; ³Y-TEC, Beriso; ⁴Cs Biol. FCE, UNLP, Argentina, e-mail: lucialagrutta@hotmail.com

9:12-9:24

LI-C02

NITRO FATTY ACIDS: NOVEL CD36 LIGANDS WHICH MODULATE FATTY ACIDS METABOLISM

Vazquez MM; Gutierrez MV; Actis Dato V; Chiabrando GA; Bonacci, GCIBICI-CONICET. Dpto Bioquímica Clínica. Fac. Ciencias Químicas. UNC, e-mail: mvazquez@fcq.unc.edu.ar

9:24-9:36

LI-C03

PTEN ACTIVITY REGULATES TARGETING OF GP135 AND CELL DIFFERENTIATION IN MDCK CELLS

Pescio LG; Santacreu BJ; Romero DJ; Francisco MN; Favale NO; Sterin-Speziale NB, Universidad de Buenos Aires. Facultad de Farmacia y Bioquímica. IQUIFIB – CONICET, e-mail: lucilagpescio@ffyb.uba.ar

9:36-9:48

LI-C04

DUAL FUNCTION OF SPHINGOSINE-1-PHOSPHATE RECEPTOR 2 IN EPITHELIAL CELL MIGRATION

Romero DJ; Santacreu BJ; Pescio LG; Tarallo E; Chavez Flores JC; Favale NO, Universidad de Buenos Aires, Facultad de Farmacia y Bioquímica, IQUIFIB-CONICET, e-mail: danielaromero05@gmail.com

9:48-10:00

LI-C05

SPHINGOSINE KINASE 2 COORDINATES THE DISASSEMBLY OF CELL JUNCTIONS DURING CELL EXTRUSION

Santacreu BJ; Pescio LG; Romero DJ; Chavez Flores JC; Tarallo E; Sterin-Speziale NB; Favale NO, Universidad de Buenos Aires, Facultad de Farmacia y Bioquímica, IQUIFIB-CONICET, Argentina, e-mail: bsantacreu@ffyb.uba.ar

10:00-10:12

LI-C06

EFFECT OF CULTURE TEMPERATURE ON FATTY ACID COMPOSITION OF DIATOM *Cylindrotheca closterium*, *Almeyda D*³; *Scodelaro Bilbao P*¹³; *Constenla D*²⁴; *Popovich C*¹³; *Leonardi P*¹³, ¹Dpto. BByF-UNS, ²Dpto.IQ-UNS, ³CERZOS, ⁴PLAPIQUI - UNS-CONICET, e-mail: delfinaalmeyda@hotmail.com

10:12-10:24

LI-C07

CELLULAR LIPIDS CHANGES DURING ADIPOSE-DERIVED STEM CELLS OSTEOGENIC DIFFERENTIATION

*Parra LG*¹; *Casali CI*¹; *Setton-Avruj PC*²; *Fernández Tomé MC*¹, ¹BCM, FFyB, UBA, IQUIFIB-CONICET, CABA, Argentina ²QBP, FFyB, UBA, IQUIFIB-CONICET, CABA, Argentina, e-mail: lparra@docente.ffyb.uba.ar

10:24-10:36

LI-C08

EXPRESSION OF GENES INVOLVED IN LIPID AND FATTY ACID METABOLISM IN EX VIVO CULTURED MOUSE TESTES

*Oresti GM*¹; *Isoler-Alcaraz J*²; *Klampachas A*¹; *Santiago Valtierra FX*¹; *Aveldaño MI*¹; *Del Mazo J*², ¹INIBIBB, CONICET y Depto. BByF, UNS, Bahía Blanca, Argentina. ²CIB, CSIC, Madrid, España., e-mail: gmoresti@criba.edu.ar

10:36-10:48

LI-C09

NOVEL ROLES OF MTP ON CANCER DEVELOPMENT, CELL SURVIVAL AND MIGRATION

*Comanzo CG*¹; *Lucci A*¹; *Vera MC*¹; *Lorenzetti F*¹; *Ceballos MP*¹; *Ferretti AC*²; *Alvarez ML*¹; *Quiroga AD*¹ Instituto de Fisiología Experimental (IFISE-CONICET). ²Área Morfología (FCByF-UNR), e-mail: comanzo@ifise-conicet.gov.ar

10:48-11:00

LI-C10

PIP 2 PROMOTES MEMBRANE CURVATURE AND IS A SIGNALING HUB IN HUMAN SPERM ACROSOME EXOCYTOSIS

Altamirano KN; Suhaiman L; Lucchesi O; Ruete MC; Belmonte SA, Instituto de Histología y Embriología, IHEM-CONICET-FCMédicas-UNCuyo, e-mail: karina.altam@gmail.com

11:00-11:30 COFFEE BREAK

11:30-12:30 PLENARY LECTURE

Andrés Aguilera

Role of chromatin and DNA damage response functions in R loop-mediated genome instability

Centro Andaluz de Biología Molecular y Medicina Regenerativa-CABIMER,
Universidad de Sevilla, España

Chairperson: Silvia Moreno

Room A

12:30-14:30 LUNCH

14:30-16:30 SYMPOSIA

Room A

MICROBIOLOGYSYMPOSIUM

Chairpersons: Monica Delgado and Jorgelina Morán Barrio

Jorge Diego Marco

Recombinant antigens of Leishmania for the immunodiagnosis and immunoprophylaxis of American tegumentary leishmaniasis

Instituto de Patología Experimental (UNSa-CONICET)

Augusto Bellomio

Study of the mechanism of action of lineal bacteriocins using suicide probes

Instituto Superior de Investigaciones Biológicas (UNT-CONICET)

Daniela Gardiol

Conserved mechanisms of viral pathogenesis: alterations of cell polarity and intercellular junctions

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

Hebe Dionisi

Brown algae polysaccharide assimilation potential in subantarctic sediments

Laboratorio de Microbiología Ambiental, Centro para el Estudio de Sistemas Marinos (CESIMAR-CONICET).

Room 1
PROTEIN KINASES SYMPOSIUM
Chairpersons: Silvia Rossi and Daniela Albanesi

Ricardo Biondi

Small compounds modulating bi-directional allostery in protein kinases: a new grip on an old trick?
IBioBA-CONICET-Partner Institute of the Max Planck Society; Frankfurt University Hospital (Germany)

Paula Portela

Role of PKA in protein translation regulation during adverse environmental growth conditions
Departamento Química Biológica-FCEN-UBA. IQUBICEN-CONICET, Buenos Aires. Argentina

Virginia Novaro

Study of PI3K/AKT/mTOR pathway in breast cancer progression
Instituto de Biología y Medicina Experimental, IBYME-CONICET, Buenos Aires.

Viviana Castilla

Involvement of RAF/MEK/ERK cell signaling pathway in Junín virus replication
Depto. de Química Biológica, Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires

Room 3
PLANT BIOTECHNOLOGY SYMPOSIUM
Chairpersons: Maria Valeria Lara and Elina Welchen

Raquel Chan

Successes and failures developing biotechnological tools in a model plant to improve crops. The long way from the growth chamber to the greenhouse and from the greenhouse to the field
Instituto de Agrobiotecnología del Litoral (UNL-CONICET) y FBCB (UNL).

Juan Carlos Diaz Ricci

The elicitor AsES regulates ripening and enhances protection in avocado and strawberry fruit
Instituto Superior de Investigaciones Biológicas (INSIBI, CONICET-UNT), Facultad de Bioquímica, Química y Farmacia, UNT.

Maria Victoria Busi

Different targets for the design of biomass of plants
Centro de Estudios Fotosintéticos y Bioquímicos de Rosario (CEFOBI-CONICET-UNR)

Marina Clemente

Molecular farming to produce vaccines against human and veterinary coccidian parasites: improving the antigen expression in plants
Laboratorio de Molecular Farming y Vacunas, Instituto Investigaciones Biotecnológicas-Instituto Tecnológico Chascomús (IIB-INTECH, sede Chascomús), Provincia de Buenos Aires, Argentina.

16:30-18:30 **COFFEE BREAK**

POSTER SESSION

MI-P01 to MI-P20

PL-P01 to PL-P15

BC-P01 to BC-P15

18:30-19:30 **RANWEL CAPUTTO CONFERENCE**

Claudio Fernandez

Structural and cell biology of synucleinopathies

Max Planck Laboratory of Structural Biology, Chemistry and Molecular Biophysics of Rosario (MPLbioR, UNR-MPIbpC), Rosario, Argentina; Instituto de Investigaciones para el Descubrimiento de Fármacos de Rosario (IIDEFAR, UNR-CONICET), Rosario, Argentina; Max Planck Institute for Biophysical Chemistry (MPIbpC-MPG), Göttingen, Germany

Chairperson: Gerardo Fidelio

Room A

WEDNESDAY, November 7, 2018

09:00-11:00 **ORAL COMMUNICATIONS**

Room 1: Cell Biology (BC-C01 to BC-C10)

Room 3: Microbiology (MI-C09 to MI-C16) **Biotechnology** (BT-C01 and BT-C02)

ROOM 1

Chairpersons: Javier Valdez Taubas and Cesar Casale

9:00-9:12

BC-C01

GLYCOGEN SYNTHASE KINASE 3 INHIBITION PREVENTS UV ELICITED TRANSCRIPTIONAL RESPONSE AND APOPTOSIS

Nieto Moreno N¹, Cuenca C¹, Villafáñez F², Soria G², Muñoz MJ¹, Kornblihtt AR¹, ¹ IFIBYNE-UBA-CONICET, Argentina. ² CIBICI-UNC-CONICET, Argentina, e-mail: nnietomoreno@fbmc.fcen.uba.ar

9:12-9:24

BC-C02

INTRAGENIC HISTONE ACETYLATION HELPS UPREGULATION OF SMN2 EXON 7 INCLUSION BY SPINRAZA

Marasco LE¹, Krainer AR², Kornblihtt AR¹, ¹ IFIBYNE-UBA-CONICET, Buenos Aires, Argentina. ² Cold Spring Harbor Laboratory, New York, USA, e-mail: lemarasco@agro.uba.ar

9:24-9:36

BC-C03

REGULATION OF THE SODIUM/IODIDE SYMPORTER (NIS) BY CREB3L1.

Di Giusto P, Martin M, Torres Demichelis VA, Sampieri L, Nicola JP, Alvarez C, Facultad de Ciencias uímicas, UNC. Departamento de Bioquímica Clínica / CIBICI-CONICET, e-mail: pablodigiusto91@gmail.com

9:36-9:48

BC-C04

TRANSLATIONAL CONTROL MEDIATED BY DIFFERENT DOMAINS OF ME31B IN *Drosophila*

Vilardo E, Rivera Pomar R, Layana C, Centro Regional de Estudios Genómicos, Fac. Cs Exactas, UNLP, e-mail: emilianovilardo@gmail.com

9:48-10:00

BC-C05

JOINT PROCESSING OF APOPTOTIC CELLS AND *Pseudomonas aeruginosa* BY MACROPHAGES

Jäger AV, Arias P, Pepe MV, Tribulatti V, Kierbel A, Instituto de Investigaciones Biotecnológicas "Dr. Rodolfo Ugalde" (IIIB-INTECH-UNSAM-CONICET), e-mail: avjager@gmail.com

10:00-10:12

BC-C06

LC3 OVEREXPRESSION MODULATES THE SECRETOME OF SENESCENCE TUMOR CELLS INDUCED BY RADIATION

Salvarredi LA¹; Agüero H¹; Marra F²; Millan E²; Lopez LA², ¹Fundación Escuela de Medicina Nuclear-CNEA. ²IHEM CCT-CONICET, Mendoza, e-mail: leonardosalvarredi@yahoo.com.ar

10:12-10:24

BC-C07

CYTOSKELETAL DYNAMICS AT THE LEADING EDGE OF OVARIAN CANCER CELLS IS ENHANCED BY LA AND OL

Masner M¹; Luján N¹; Bisbal M²; Acosta C³; Kunda P¹, ¹CIMETSA, IUCBC Córdoba ²INIMEC-CONICET-UNC, Córdoba ³IIHEM, FM, UNC Mendoza, e-mail: mmasner@gmail.com

10:24-10:36

BC-C08

MECHANISTIC ANALYSIS OF INFLUENZA A VIRUS GLYCOPROTEIN COMPENSATION

Drake A¹; Garrido FM¹; MorellattoRuggieri L¹; Yewdell JW²; Magadan JG¹, ¹IHEM-CONICET, Fac. Cs. Médicas, UNCuyo. Mendoza, Argentina. ²NIAID, NIH. Bethesda, MD, USA, e-mail: jmagadan@mendoza-conicet.gob.ar

10:36-10:48

BC-C09

EXPLORING THE DRIVING FORCES INFLUENCING S-ACYLATION OF PERIPHERAL PROTEINS AT THE GOLGI COMPLEX

Chumpen Ramirez S; Astrada MR; Daniotti JL, CIQUIBIC (UNC-CONICET), Fac. de Cs. Químicas, Universidad Nacional de Córdoba, Córdoba, Argentina, e-mail: svchumpen@gmail.com

10:48-11:00

BC-C10

SUPINE FALLS IN *Ceratitidis capitata* CORRELATE WITH DISTINCT GENE EXPRESSION PROFILES

Bochicchio PA; Pérez MM; Rabossi A; Cavaliere-Candedo V; Quesada-Allué LA, IIBBA-CONICET, FCEyN-University of Buenos Aires and Fundación Leloir, e-mail: pbocchicchio@leloir.org.ar.

ROOM 3

Chairpersons: Eduardo Rodríguez and Nestor Cortez

9:00-9:12

MI-C09

DISRUPTION OF CTL0175 HAMPERS *Chlamydia trachomatis* REPLICATION POST IFN GAMMA-INDUCED STRESS

Panzetta ME¹; Lujan AL²; Bastidas RJ³; Damiani MT²; Valdivia RH³; Saka HA¹, ¹CIBICI-CONICET, UNC, Arg, ²IMBECU-CONICET, UNCu, Arg., ³Duke University School of Medicine, USA, e-mail: epanzetta@fcq.unc.edu.ar

9:12-9:24

MI-C10

INCREASE IN THE VIRULENCE FITNESS OF *Shigella flexneri*: THE NOA POPULATION'S PREVALENT PATHOGEN

Torrez Lambertini MF; Ballesteros MF; Bonano M; Pescaretti MM; Delgado MA, INSIBIO, e-mail: mftorrezlamberti@gmail.com

9:24-9:36

MI-C11

EXPLORING INTERACTIONS OF THE S-LAYER PROTEIN OF *Lactobacillus acidophilus* ATCC4356

Fina Martín J¹; Palomino MM¹; Cutine A²; Allievi MC¹; Zanini SH¹; Mariño KV²; Barquero A¹; Ruzal SM¹, ¹UBA-FCEN-Qca Biológica CONICET-IQUIBICEN² IBYME-CONICET, Bs As, Argentina, e-mail: joaquinafinamartin@gmail.com

9:36-9:48

MI-C12

DIVERSITY AND EVOLUTION OF β -LACTAMASE ampC IN LONG-TERM *Pseudomonas aeruginosa* CHRONIC INFECTIONS

Colque CA¹; Albarracín AG¹; Hedemann G¹; Hickman RA²; Sommer LM³; Molin S³; Johansen HK²; Smania AM¹, ¹Depto. de Qca. Biológica, FCQ, UNC, CIQUIBIC-CONICET. ²Rigshospitalet. ³CFB-DTU, e-mail: acolque@fcq.unc.edu.ar

9:48-10:00

MI-C13

IMMUNOPROPHYLACTIC EFFECT OF R-*Leishmaniabraziliensis* HSP70 IN EXPERIMENTAL CUTANEOUS LEISHMANIASIS

Moya Alvarez A; Bracamonte ME; Hoyos CL; Uncos DA; Acuña L; Basombrio MA; Barroso PA; Marco JD, Instituto de Patología Experimental, FCS, UNSa/CONICET, Salta, Arg, e-mail: elagus177@gmail.com

10:00-10:12

MI-C14

TAM SYSTEM IS INVOLVED IN CELL ENVELOPE HOMEOSTASIS IN α -PROTEOBACTERIA

Bialer MG¹; Sycz G¹; Ruiz-Ranwez V¹; Estein S²; Zorreguieta A¹, ¹Fundación Instituto Leloir, IIBBA-CONICET. Bs As. ²CIVETAN, CONICET-U.N.C.P.B.A. Tandil. e-mail: mbialer@leloir.org.ar

10:12-10:24

MI-C15

SYNERGISTIC MECHANISM BETWEEN INFLUENZA A VIRUS AND *Streptococcus pneumoniae* IN PNEUMOCYTES

Reinoso Vizcaino N¹; Olivero N¹; Cortes P¹; Yandar N¹; Hernandez Morfa M¹; Perez DR²; Echenique J¹, ¹CIBICI-CONICET, Fac. Cs. Qcas, UNC. ²College of Veterinary, University of Georgia, USA, e-mail: nreinoso@fcq.unc.edu.ar

10:24-10:36

MI-C16

DIFFERENTIAL YEAST POPULATIONS IN GRAPE MUSTS FROM DIFFERENT *Vitis* SPECIES IN A SHARED TERROIR

Raymond Eder ML; Conti F; Rosa AL, IRNASUS-CONICET, Facultad de Ciencias Químicas, Universidad Católica de Córdoba. Argentina, e-mail: marialraymond@hotmail.com

10:36-10:48

BT-C02

A GH 8 ENDOGLUCANASE FROM *Paenibacillus* sp. A59 FOR APPLICATION IN BIOPROCESSES

Bradani M; Ghio S; Ontañon O; Garrido M; Campos E, Instituto de Biotecnología, CICVyA. INTA- IABIMO CONICET, e-mail: mariabradanini@hotmail.com.ar

10:48-11:00

BT-C03

CHARACTERIZATION OF POLYHYDROXYALKANOATE PRODUCTION BY *KHS3*

*Rodríguez AN¹; D'Amico D²; Cyrus V²; Studdert CA¹; Herrera Seitz MK³, ¹IAL-UNL-CONICET, Santa Fe, Argentina
^{2,3} INTEMA e IIB-UNMDP- CONICET, Mar del Plata, Argentina, e-mail: ailennatalirodriguez@gmail.com*

11:00-11:30 COFFEE BREAK

11:30-12:30 PLENARY LECTURE HECTOR TORRES

Sebastian Kadener

Molecular and physiological functions of circRNAs

Brandeis University, Waltham, Massachusetts, USA

*Chairperson: Luis Quesada Allué
Room A*

12:30-14:30 LUNCH

14:30-16:30 SYMPOSIA

Room A

PLANT SYMPOSIUM

Chairpersons: Paula Casati and Caudia P. Spampinato

Erich Grotewold

Emerging patterns in plant gene regulation

Department of Biochemistry & Molecular Biology Michigan State University, East Lansing, Michigan USA

Åsa Strand

The role of retrograde signals during plant stress responses

Umeå Plant Science Centre, Dept. of Plant Physiology, Umeå University, Umeå, Sweden.

Jorge Casal

Signalling dynamics and plant plasticity in complex environments

IFEVA, Universidad de Buenos Aires y Consejo Nacional de Investigaciones Científicas y Técnicas, Facultad de Agronomía, Argentina. Fundación Instituto Leloir, Instituto de Investigaciones Bioquímicas de Buenos Aires-CONICET, Argentina.

Javier Palatnik

The ups and downs of an Arabidopsis microRNA

IBR (Instituto de Biología Molecular y Celular de Rosario), UNR-CONICET. Argentina.

Room 3

CELL BIOLOGY

Chairpersons: Gustavo Chiabrando and Claudio Fader

Claudio Fader

Erythropoiesis and autophagy: two closely related partners.

Laboratorio de Biología Celular y Molecular, Instituto de Histología y Embriología (IHEM), Universidad Nacional de Cuyo, CONICET, Mendoza, Argentina, Facultad de Odontología, Universidad Nacional de Cuyo, Mendoza, Argentina.

Galiano Mauricio

N-terminal post-translational arginylation regulates multiple roles of calreticulin

CIQUIBIC-Dpto. Qca Biológica RanwelCaputto, Facultad de Ciencias Químicas, Universidad Nacional de Córdoba.

Osorio-Fuentealba Cesar

Insulin-independent Glut4 trafficking in skeletal muscle: new mechanisms and advances to face metabolic diseases

Laboratorio de Biología Molecular, Celular y Metabolismo, Departament de Kinesiología, UMCE, Santiago, Chile, Centro de Investigación de Alcoholismo Adolescente (CIAA), Santiago Chile

Kashina Anna

Protein arginylation as a global regulator of intracellular protein trafficking and function

Department of Biomedical Sciences, School of Veterinary Medicine, University of Pennsylvania, Philadelphia, USA

Room 1

YOUNG INVESTIGATORS

Chairpersons: Silvia Moreno and Eleonora Garcia Vescovi

Juan Pablo Fededa

Investigating the role of microRNAs during mammalian brain development

Instituto de Investigaciones Biotecnológicas, IIB-INTECH/CONICET-UNSAM, San Martín, Prov. de Bs. As., Argentina.

Nicolas Cecchini

The Azi1 subcellular targeting mechanism: how to anchor immune receptors to the plastid envelope

CIQUIBIC-CONICET, Departamento de Química Biológica-RanwelCaputto, Facultad de Ciencias Químicas, Universidad Nacional de Córdoba, Argentina.

Leticia Llarrull

Architecture of MecR1 of Staphylococcus aureus: clues to the signal transduction mechanism that unleashes resistance to β -lactams

Laboratorio de Sensores Bacterianos, IBR-CONICET-Universidad Nacional de Rosario, Argentina

Andrés Garelli

Dilp8-Lgr3 pathway: a relaxin-like pathway controlling developmental transitions

Instituto de Investigaciones Bioquímicas de Bahía Blanca (UNS-CONICET), Buenos Aires Argentina

Ignacio Cebrián

The endocytic pathway as a key modulator of antigen cross-presentation by dendritic cells

Facultad de Ciencias Médicas, Instituto de Histología y Embriología de Mendoza(IHEM)-CONICET, Universidad Nacional de Cuyo, Argentina

16:30-18:30 **COFFEE BREAK**
POSTER SESSION

LI-P01 to LI-P07

SB-P01 to SB-P03

EN-P01 to EN-P13

ST-P01 to ST-P07

BT-P01 to BT-P16

18:30-19:30 **PLENARY LECTURE**

SeongWook Yan

Integration of light signaling into microRNA biogenesis

1Department of Systems Biology, College of Life Science and Biotechnology, Yonsei University, Seoul, 120-749, Korea

Chairperson: Pablo Manavella

Room A

19:45 **SAIB Assembly**

THURSDAY, November 8, 2018

09:00-11:00 ORAL COMMUNICATIONS

Room 1: Plants PL-C10 to PL-C19)

Room 3: Signal transduction (ST-C01 to ST-C10)

ROOM 1

Chairpersons: Fabiana Drincovich and Renata Reinheimer

9:00-9:12

PL-C10

IS THE METABOLISM OF XENOBIOTIC COMPOUNDS REGULATED BY CIRCADIAN CLOCK?

Sosa Alderete LG¹; Ronchi H¹; Medina MI¹; Guido ME²; Agostini E¹, ¹Dpto Biología Molecular-FCEFQyN UNRC, 5800- Río Cuarto-Arg²CIQUIBIC-CONICET, FCQ UNC, 5000 Córdoba-Argentina, e-mail: lucasaureus@gmail.com

9:12-9:24

PL-C11

Arabidopsis KINESIN 13B INTERACTS WITH SEVERAL TRANSCRIPTION FACTORS INVOLVED IN GROWTH REGULATION

Miguel VN; Ribichich KF; Chan RL, Laboratorio de Biología Vegetal, IAL, UNL, CONICET, CCT CONICET, Santa Fe, Argentina. e-mail: vmiguel@santafe-conicet.gov.ar

9:24-9:36

PL-C12

ROLE OF E2FC TRANSCRIPTION FACTOR DURING THE UV-B RESPONSES IN *Arabidopsis*

Gomez MS; FalconeFerreira ML; Casati P, Centro de Estudios Fotosintéticos y Bioquímicos (CEFOBI), UNR – CONICET, Rosario, Santa Fe, e-mail: gomez@cefobi-conicet.gov.ar

9:36-9:48

PL-C13

THE LNK GENE FAMILY: AT THE CROSSROADS OF LIGHT SIGNALING AND THE CIRCADIAN CLOCK

Hernando CE; De Leone MJ; Romanowski A; Hourquet M; Casal J; Rugnone M; Mora Garcia S; Yanovsky MJ, Instituto de Investigaciones Bioquímicas de Buenos Aires - Fundación Instituto Leloir, e-mail: chernando@leloir.org.ar

9:48-10:00

PL-C14

ROLE OF MSH6 DURING DNA RECOMBINATION IN *Arabidopsis thaliana*

Gonzalez V; Spampinato CP, Centro de Estudios Fotosintéticos y Bioquímicos (CEFOBI, CONICET-UNR), Suipacha 570, 2000 Rosario, e-mail: gonzalez@cefobi-conicet.gov.ar

10:00-10:12

PL-C15

MECHANISMS INVOLVED IN THE CELLULAR ENERGY HOMEOSTASIS IN PLANTS

Blanco NE¹; Liebsch D²; Jásik J³; Whelan J⁴; Strand Å⁵, ¹CEFOBI/UNR-CONICET, ²IBR/CONICET, ³Institute of Botany, Slovakia, ⁴Latrobe, Australia, ⁵UPSC, Sweden, e-mail: blanco@cefobi-conicet.gov.ar

10:12-10:24

PL-C16

LIGHT REGULATION OF ALTERNATIVELY SPLICED GENES DURING *Arabidopsis thaliana* SEED GERMINATION

Tognacca RS¹; Servi L²; Botto JF¹; Petrillo E², ¹IFEVA, CONICET-UBA.²IFIBYNE, CONICET-UBA., e-mail: rtognacca@agro.uba.ar

10:24-10:36

PL-C17

NON-THERMAL PLASMAS AFFECT SEED QUALITY, PLANT GROWTH AND DNA METHYLATION PATTERNS IN SOYBEAN

Pérez Pizá M¹; Zilli C¹; Ibáñez V³; Varela A³; Cejas E²; Prevosto L²; Marfil C³; Balestrasse K¹ INBA (CONICET-FAUBA), ²FRVT-UTN (CONICET), ³IBAM (CONICET-UNCuyo), e-mail: macycecy@hotmail.com

10:36-10:48

PL-C18

SALICYLIC ACID SIGNALING PATHWAY AS KEY PLAYER IN THE EARLY ACTIVATION OF IMMUNE RESPONSES IN MAIZE

Agostini R¹; Postigo A¹; Rius S¹; Campos Bermudez V¹; Vargas W², ¹CEFOBI-CONICET. Rosario, Argentina. ²YPF-Tecnología-CONICET (Y-TEC). Berisso, Argentina, e-mail: agostini@cefobi-conicet.gov.ar

10:48-11:00

PL-C19

PAP-SAL1 CHLOROPLAST RETROGRADE PATHWAY MODULATES IRON DEFICIENCY RESPONSE IN ALKALINE SOILS

Balparda M; Gomez-Casati DF; Pagani MA, Centro de Estudios Fotosintéticos y Bioquímicos (CEFOBI – CONICET), Universidad Nacional de Rosario, e-mail: balparda@cefobi-conicet.gov.ar

ROOM 3

Chairpersons: Fabiana Cornejo and Ricardo Biondi

9:00-9:12

ST-C01

IT TAKES TWO TO TANGO: YvFTU AND DesKR TWO COMPONENT SYSTEMS REGULATE ABC TRANSPORTER TRANSCRIPTION

Fernández P; Albanesi D; De Mendoza D; Mansilla MC, Instituto de Biología Molecular y Celular de Rosario-CONICET. Facultad de Cs Bioq y Farm – UNR, e-mail: pfernandez@ibr-conicet.gov.ar

9:12-9:24

ST-C02

TcAMPK: IDENTIFICATION AND CHARACTERIZATION OF AN ENERGY REGULATORY HUB IN *Trypanosoma cruzi*

Sternlieb TI; Schoijet AC; Genta PD; Barrera NM; MassiminoStepñicka M; Alonso GD, Instituto de Investigaciones en Ingeniería Genética y Biología Molecular Dr. Héctor N. Torres, e-mail: tamara.sternlieb@gmail.com

9:24-9:36

ST-C03

CALCIUM SIGNALING: THE COMMUNICATION BETWEEN INTRACELLULAR CA²⁺ STORES IN HUMAN SPERM

Mata-Martínez E¹; Arias RJ¹; Treviño CL²; Mayorga LS¹; Darszon A²; De Blas GA¹, IIHEM-CONICET, UNCuyo, Argentina. 2IBT-UNAM, México, e-mail: ematamartinez@mendoza-conicet.gob.ar

9:36-9:48

ST-C04

THE ROLE OF MITOCHONDRIA IN CALCIUM SIGNALING AND HUMAN SPERM PHYSIOLOGY ACTIVATED BY PROGESTERONE.

Arias RJ¹; Vargas S²; Mata-Martinez E¹; Garcia A²; Härtel S²; Mayorga LS¹; De Blas GA¹, IHEM-CONICET-UNCuyo, Mendoza, Argentina. 2CEDAI-Facultad de Medicina, Universidad de Chile, e-mail: rodojosearias@gmail.com

9:48-10:00

ST-C05

EXPRESSION REGULATION OF PROTEIN KINASE A SUBUNITS FROM *Saccharomyces cerevisiae*

Cañonero L¹; Pautasso C¹; Sigaut LI²; Ortolá MC¹; Rossi S¹, ¹Química Biológica, FCEN, UBA, IQUIBICEN (CONICET-UBA) ²Física, FCEN, UBA and IFIBA, CONICET, e-mail: lucianac@qb.fcen.uba.ar

10:00-10:12

ST-C06

ROLE OF AKR1B1 IN TUMOR AGGRESSIVENESS AND ITS INTERPLAY WITH THE P53 PATHWAY IN BREAST CANCER

Di Benedetto C¹; BoriniEtichetti CM¹; Bicciato S²; Menacho Márquez M³; Girardini JE¹, ¹IBR-CONICET, 2 Universidad de Módena, 3 IIDEFAR-CONICET, e-mail: girardini@ibr-conicet.gov.ar

10:12-10:24

ST-C07

ICMT COOPERATES WITH TUMOR AGGRESSIVENESS AND IT IS UNDER COMPLEX CONTROL BY p53 FAMILY MEMBERS

BoriniEtichetti CM¹; Di Benedetto C¹; Baglioni MV²; Bicciato S³; MenachoMarquez M⁴; Girardini JE¹, ¹IBR-CONICET. ²IGE-Fac. Cs. Med. UNR. ³ Universidad de Módena. ⁴ IIDEFAR-CONICET, e-mail: girardini@ibr-conicet.gov.ar

10:24-10:36

ST-C08

DAL81 AND UGA3 TRANSCRIPTION FACTORS AND STRESS RESPONSE IN *Saccharomyces cerevisiae*

Muñoz SA; Mercau M; Gulías J; Valencia-Guillen J; Correa-García S; Bermúdez-Moretti M, Departamento de Química Biológica, FCEN, UBA - IQUIBICEN, CONICET. CABA, Argentina, e-mail: munozsebastiananibal@gmail.com

10:36-10:48

ST-C09 INTERACTIONS BETWEEN PROTEIN TYROSINE PHOSPHATASE 1B (PTP1B), EGFR AND FAK IN INTACT CELLS

Perez Collado ME; González Wusener AE; Arregui CO, IIB-INTECH, UNSAM-CONICET, Buenos Aires, Argentina, e-mail: mcollado@iibintech.com.ar

10:48-11:00

ST-C10

PKA AND HOG1 ROLE IN GENE EXPRESSION AND CELL SURVIVAL IN RESPONSE TO OSMOSTRESS IN *Saccharomyces cerevisiae*

Ojeda LE; Portela P, Departamento de Química Biológica, FCEN, UBA/IQUIBICEN-Conicet, e-mail: leojeda@qb.fcen.uba.ar

11:00-11:30

COFFE BREAK

18:30-19:30 **PLENARY LECTURE**

Miguel Ballicora

Biosynthesis of bacterial glycogen: Evolution of allosteric control

Department of Chemistry and Biochemistry, Loyola University Chicago, Chicago, IL, USA.

Chairperson: Alberto Iglesias

RoomA

12:30 -14:30 **LUNCH**

14:30-16:30 **SYMPOSIA**

Room 3

LIPIDS

Chairpersons: Hugo Gramajo and Nicolas Favale

Claudia Banchio

Specific phospholipids regulate the acquisition of neuronal and astroglial identities in post-mitotic cells

Instituto De Biología Molecular y Celular de Rosario IBR-CONICET Rosario, Argentina

Hector Alvarez

Unraveling the molecular mechanisms involved in the regulation of lipid accumulation in oleaginous Rhodococcus

Instituto de Biociencias de la Patagonia (CONICET y Universidad Nacional de la Patagonia San Juan Bosco)

Richard Lehner

Regulation of lipid metabolism by endoplasmic reticulum-localized lipases

University of Alberta, Edmonton, Canada

Sipione Simoneta

Gangliosides in Huntington's disease and beyond

Alberta, Edmonton, Canada

Room A

APPLIED MICROBIOLOGY

Chairpersons: Sandra Ruzal and Christian Magni

Mariana Piuri

Fluorophages for rapid Tb-diagnosis in sputum samples and phenotypic drug susceptibility testing

Departamento De Química Biológica, Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires, IQUBICEN-CONICET

Fadda Silvina

Study of lactic acid bacteria—Escherichia coli o157:h7 interaction and its contribution to bioprotection strategies in meat

Laboratorio de tecnología y desarrollo (CERELA-CONICET), Tucumán, Argentina

Serradell María de los Angeles

Probiotic lactobacilli as a source of proteins of biotechnological interest: Lactobacillus kefir and its S-layer proteins

Cátedra De Microbiología, Departamento De Ciencias Biológicas, Facultad De Ciencias Exactas, Universidad Nacional De La Plata, Instituto De Ciencias De La Salud, Universidad Nacional Arturo Jauretche

Eleonora Campos

Microbial enzymes and their application in cellulosic ethanol industry

Laboratorio de bioenergía y enzimas industriales, Instituto de Biotecnología-IABIMO, INTA-CONICET, Argentina.

Room 1

SIGNAL TRANSDUCTION

Chairpersons: Mario Rossi and Javier Girardini

Andrea Smania

Hipermutability and the evolution of small colony variants in Pseudomonas aeruginosa biofilms.

CIQUIBIC-CONICET, Dpto de Química Biológica, Facultad de Ciencias Químicas, Universidad Nacional de Córdoba

Vanesa Gottifredi

Specialized DNA polymerase iota coordinates DNA replication and checkpoint activation

Fundación Instituto Leloir. Instituto de Investigaciones Bioquímicas De Buenos Aires (Iibba), CONICET, Buenos Aires

Gaston Soria

A survival screen targeting the human kinome reveals synthetic lethal interactions with therapeutic potential for BRCA-deficient cancer cells

CIBICI-CONICET, Depto. de Bioquímica Clínica, Facultad de Ciencias Químicas, Universidad Nacional de Córdoba, Argentina

Lucas Pontel

Novel targets of formaldehyde toxicity in cancer cells

IBIOBA-CONICET-Partner Institute of the Max Planck Society, Buenos Aires, Argentina

16:30-18:30

COFFEE BREAK

POSTER SESSION

PL-P16 to LI-P32

BC-P16 to SB-P30

EN-P01 to EN-P03

18:30-19:30 ***CLOSING LECTURE***

Pedro Aramendia

Quantitative imaging in single molecule fluorescence localization

Centro de Investigaciones en Bionanociencias "Elizabeth Jares-Erijman" (CIBION-CONICET) y Departamento de Química Inorgánica. FCEN. Universidad de Buenos Aires

Chairperson: Maria Isabel Colombo

RoomA

19:30 ***CLOSING CEREMONY AND AWARDS***

21:30 ***CLOSING PARTY***

ABSTRACTS:

All abstract will be published in:

BIOCELL 42 (suppl. 4), 2018

***available on line at: www.saib.org.ar
www.cricyt.edu.ar/biocell/***

Lectures

- Lectures L01 to L07

Symposia

- Cell Biology: BC-01 to BC-04
 - Lipids: LI-01 to LI-04
 - Microbiology: MI-01 to MI-04
- Plant Biochemistry and Molecular Biology: PL-01 to PL-04
 - Signal Transduction: ST-01 to ST-04

Oral Communications

- Biotechnology: BT-C01 to BT-C03
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Posters

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EN-P13

FLAVODOXIN REDUCTASES OF *Acinetobacter*. KINETIC CHARACTERIZATION AND RESPONSE TO REDOX STRESSORS

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Ferredoxin/flavodoxin NADP(H)-reductases (FPRs) are monomeric flavoenzymes carrying non-covalently bound FAD as cofactor, present in mitochondria, plastids and bacteria. Bacterial FPRs are classified in two groups that differ in the C-terminus structure. They are involved in reductive activation of enzymes and repair of Fe-S clusters after oxidative damage. Although most bacteria contain one of the two forms, some species carry both of them. The extremophile UV-resistant *Acinetobacter* sp. Ver3 conserved both FPR1 and FPR2 and a single flavodoxin. Here we report a biochemical characterization of the flavoenzymes and a study of their response to environmental factors as pro-oxidants or UV irradiation. Kinetic measurements under steady state conditions using flavodoxin as e- acceptor showed a faster electron transfer for FPR1 compared to FPR2 ($k_{cat1}=1.3 \text{ s}^{-1}$ vs. $k_{cat2}=0.5 \text{ s}^{-1}$) with a higher K_m for both flavodoxin ($K_{m1}=4.7 \mu\text{M}$ vs $K_{m2}=1.5 \mu\text{M}$) and NADPH ($K_{m1}=85 \mu\text{M}$ vs $K_{m2}=34 \mu\text{M}$). Challenge of *Acinetobacter* cells with superoxide propagators resulted in increased accumulation of FPR2 as revealed by immunostaining with specific antibodies. However, when cells were exposed to UV radiation, only FPR1 levels augmented. These data suggest that, although displaying similar catalytic efficiency, each FPR of *Acinetobacter* has a distinctive regulation mechanism in response to different stressors and redox stimuli.

LIPIDS

LI-P01

TESTOSTERONE AND SOLUBLE FACTORS FROM SERTOLI CELLS STIMULATE SPHINGOLIPID SYNTHESIS IN GERM CELLS

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Germ cells from male rodents require membrane sphingomyelins (SM) and ceramides (Cer) with very long chain polyunsaturated fatty acids (VLCPUFA), in non-hydroxylated (n-V) and 2-hydroxylated (h-V) versions, for normal spermatogenesis. We have previously shown that spermatogenic cells isolated from seminiferous tubules of adult rats, in culture, are able to synthesize de novo the sphingolipids (SL) Cer, SM, and Glucosyl-Cer (GlcCer). Here, we evaluated the effect on such biosynthesis of supplementing the cultures with testosterone (T), with the supernatant medium recovered from primary Sertoli cell cultures (SMSC), and with both. Germ cells from adult rats were isolated and cultured in a medium containing [3H]palmitate as SL precursor. Label from this marker was incorporated into species of Cer and SM that contain saturated fatty acids (S), monoenoic fatty acids (M) and also in those containing n-V and h-V. In germ cells supplemented with T, while the labeling of Cer with [3H]palmitate was unaffected that of SM was increased in all the molecular species. Interestingly, supplementation with SMSC increased the synthesis of molecular species of Cer and SM with S, M and h-V, but not those with n-V. Finally, supplementation with both, T and SMSC, resulted in increased incorporation of [3H]palmitate in all Cer and SM molecular species. The biosynthesis of GlcCer was not influenced by T or SMSC. Thus, the de novo biosynthesis of the SM species of spermatogenic cells is subjected to endocrine stimulation by T and to paracrine regulation by soluble factor(s) released from Sertoli cells that are yet to be identified.

LI-P02

NEW INSIGHTS INTO LIPID METABOLISM OF *Haematococcus pluvialis* IN RESPONSE TO HIGH-LIGHT STRESS

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The oleaginous unicellular microalga *Haematococcus pluvialis* is being intensely studied as a source of carotenoids and lipids with potential biotechnological and biomedical applications. The aim of this study was to analyze the effect of high-light stress on the regulation of triacylglyceride (TAG) and sterol synthesis in *H. pluvialis* UTEX 2505. After 24 hours of high-light exposure, both lipid classes significantly increased compared to the control condition. As expected, the use of inhibitors cerulenin, propranolol, xanthohumol and A922500 significantly decreased TAG synthesis under high-light stress, while mevastatin and 25-hydroxycholesterol reduced sterol content. These results together with qPCR and Western blot analyses revealed some of the enzymes of *H. pluvialis* involved in lipid synthesis in response to high-light. In addition, we observed that TAG inhibitors also reduced sterol content while sterol inhibitors diminished TAG production, denoting coordination between both synthesis pathways. Fosmidomycin, a specific inhibitor of the non-mevalonate pathway of isoprenoid biosynthesis, reduced total carotenoid content and antioxidant capacity together with TAG and sterol content. Finally, inhibition of carotenoid, TAG and sterol synthesis significantly reduced cell viability suggesting their participation in *H. pluvialis* survival and adaptation to high irradiance. These findings reveal features of lipid synthesis and function of *H. pluvialis* under high-light stress, and points towards new possible molecular targets to enhance lipid production in microalgae