

PROGRAMA IN EXTENSO

Sunday October 16

17:30-18:00

Welcome Ceremony (Gran Salón Yucatán)

18:00-19:00

Opening Lecture (Gran Salón Yucatán)

Scanning Electron Microscope. A connection between science and art

IQ. Silvia Andrade Silvana, Centro de Investigación Científica de Yucatán.

Chair: Teresa Hernández, Centro de Investigación Científica de Yucatán.

19:00-20:00

Plenary Lecture I (Gran Salón Yucatán)

The Pseudomonas aeruginosa type VI secretion system (T6SS): A bacterial killing machine

Alain Filloux, Singapore Centre for Environmental Life Sciences Engineering, Nanyang Technological University

Chair: Bertha González, Instituto de Fisiología Celular, UNAM.

20:00-22:00

Welcome Cocktail, Explanada Centro Internacional de Convenciones

Oral sessions will be held in Fiesta Americana Hotel

Posters will be exhibited in Hotel Holiday Inn (El Gran Salón and Foyer)

Monday October 17

8:30-10:00

Plenary Symposia I (Gran Salón Yucatán)

The Ever changing nature of scientific research: four stories

Chair: Alicia González Manjarrez, Instituto de Fisiología Celular, UNAM.

Overlapped genes in bacteriophage Fc02 are transcribed in opposite directions and encode similar activities during the lytic and lysogenic phases in Pseudomonas aeruginosa.

Gabriel Guarneros Peña, Cinvestav, Zacatenco.

Divergence of functional transcriptional regulation through the generation of novel hybrid regulators in S. cerevisiae.

Alicia González Manjarrez, Instituto de Fisiología Celular, UNAM.

From oxidative stress MAPK signaling to mitochondrial division

Jesús Aguirre Linares, Instituto de Fisiología Celular, UNAM.

Fungal cytokinins, plant growth stimulating compounds or fungal hormones?.

Alfredo Herrera-Estrella, LANGE BIO, Irapuato.

10:00-11:00

Plenary Lecture II (Gran Salón Yucatán)

Communication makes the difference: the constant dialogue between members of the cell is an essential element for plant development

Patricia León Mejía, Instituto de Biotecnología, UNAM

Chair: Felipe Vázquez Flota, Centro de Investigación Científica de Yucatán.

11:00-11:30

Coffee Break

11:30-13:00

Simultaneous oral Sessions 1, 2, 3 (Salones Yucatán 1, 2, 3)

Yucatán 1

Chair: Edgardo Sepúlveda. CICESE

Participation of the oncoprotein CagA from Helicobacter pylori in the pancreatic epithelial cells damage

Anais Romero-Fabela. Departamento de Infectómica y Patogénesis Molecular. Cinvestav Zacatenco

Biological and Functional Characterization of the SLC5/STAC Two-Component Signal Transduction Systems

Edgardo Sepúlveda. Centro de Investigación Científica y de Educación Superior de Ensenada.

Molecular Cartography of the Salmonella Type III Secretion System Sorting Platform

Jose Eduardo Soto. Yale School of Medicine.

Genomics "microbial dark matter" exploration for antimicrobial discovery

Corina-Diana Ceapă. Instituto de Química, UNAM.

Kinetic characterization of rhizobial bacterias as plant growth promoters (PGPB) in shaken flask and stirred tank.

Engelberth René Torreblanca Pacheco. Instituto Tecnológico de Tuxtla Gutiérrez.

Conformational landscape of the GTPase EFL1 and its implications in the Shwachman-Diamond Syndrome

Nuria Sánchez Puig. Instituto de Química, UNAM.

Yucatán 2

Chair: Elia Diego García. El Colegio de la Frontera Sur

Prolactin regulates H3k9ac and H3k9me2 epigenetic marks and miRNAs expression in bovine mammary epithelial cells during Staphylococcus aureus infection

Marco Antonio Barajas Mendiola. Universidad Michoacana de San Nicolás de Hidalgo.

Functional heterologous analysis of allelic variants of human genes potentially driven by natural selection

César Mauricio Campa Álvarez. Unidad de Genómica Avanzada (Langebio), Cinvestav, Irapuato.

Transcriptome analysis of the spider Phonotimpus pennimani reveals novel toxin transcripts.

Elia Diego-García. El Colegio de la Frontera Sur.

Abf1 Participates in Cell Cycle Progression and Subtelomeric Silencing in Candida glabrata

Grecia Hernández-Hernández. Instituto Potosino de Investigación Científica y Tecnológica A.C.

Functional characterization of the Tau95 subunit of transcription factor TFIIIC in Trypanosoma brucei

Fabiola Mondragon Rosas. FES Iztacala, UNAM.

Large-scale profiling of ncRNAs in budding yeast longevity

Ericka Moreno-Mendez. Unidad de Genómica Avanzada (Langebio), Cinvestav, Irapuato.

Yucatán 3

Chair: Robert Winkler. LANGEBIO. Cinvestav

Evaluation of endophytic bacteria as plant probiotics in Agave plants

Julio César Maldonado Gómez. Instituto Tecnológico de Tuxtla Gutiérrez.

Structural studies of cell wall biosynthesis of pathogen MRSA. Implications in the antibiotic resistance

Carol Siseth Martínez Caballero. Instituto de Química. UNAM.

Changes in induction temperature impacts the structure of recombinant HuGM-CSF inclusion bodies in thermoinducible E. coli

Norma A. Valdez-Cruz. Instituto de Investigaciones Biomédicas. UNAM.

Real-time monitoring of volatile organic compounds (VOCs): From basic research to Citizen Science

Robert Winkler. Unidad de Genómica Avanzada (Langebio), Cinvestav, Irapuato.

Litopenaeus vannamei glutathione peroxidases 2 and 4: Responses and modulation during hypoxia and reoxygenation

Paulina Estrada Cárdenas. Centro de Investigación en Alimentación y Desarrollo, A.C.

Heterogenous gene expression and splicing in Hypersensitivity Pneumonitis Fibroblasts

Ana Lilia Torres Machorro. Instituto Nacional de Enfermedades Respiratorias "Ismael Cosío Villegas"

13:00-14:30

Lunch

14:30-16:15

Simultaneous Symposia (Salones Yucatán 1, 2, 3)

Yucatán 1

1. Molecular biology of fungi and their interactions

Chair: Meritxell Riquelme, Centro de Investigación Científica y de Educación Superior de Ensenada.

Fungal holobionts: hidden relationships with ecological consequences.

Laila Partida Martínez, Cinvestav, Irapuato.

Exploring the kosmotropy limits in fungi: Aspergillus sydowii as a model of kosmotolerant

Ramón Batista García, Universidad Autónoma del Estado de Morelos.

Exploring natural products from mexican biodiversity

Mario Alberto Figueroa Saldívar, Facultad de Química, UNAM.

Fungal models: can they be the basis of the growth canons of the great fungal diversity?

Meritxell Riquelme Pérez,

Centro de Investigación Científica y de Educación Superior de Ensenada.

Yucatán 2

2. Symposium on physical-chemistry, structure and design of proteins

In memoriam: Alfredo Torres Larios and Barbarín Arreguín Lozano

Chair: Víctor Loyola Vargas, CICY.

A structural study of an IgE-profilin complex reveals allergen recognition and cross-reactivity information

Adela Rodríguez Romero, Instituto de Química, UNAM.

Specificity in promiscuous enzymes: The aminoaldehyde dehydrogenases case

Rosario Muñoz Clares, Facultad de Química, UNAM.

Polymerases & DNA replication: A tale of bacteria, phages and organelles

Luis Gabriel Brieba de Castro, LANGE BIO, Irapuato.

How are plant peptide hormones perceived by the cells and what determines their signaling specificity?

Pedro Jiménez Sandoval, Department of Plant Molecular Biology, University of Lausanne, Switzerland.

Yucatán 3

3. System Neuroscience

Chair: Hugo Merchant Nancy, Instituto de Neurobiología, UNAM.

Neural interactions mediating cognitive control in prefrontal networks

Matthew V. Chafee, Department of Neuroscience, University of Minnesota.

Regaining our bearings: Neural representations and circuits underlying spatial reorientation

Isabel A. Muzzio, Department of Psychological and Brain Sciences, University of Iowa, USA.

Cortico-striatal circuits for bilaterally coordinated movements

Pavel Rueda Orozco, Instituto de Neurobiología, UNAM.

Brain dynamics in the primate audiomotor circuit during isochronous beat perception and entrainment

Hugo Merchant, Instituto de Neurobiología UNAM.

16:15-16:45

Coffee Break

16:45-17:45

Plenary Lecture III (Gran Salón Yucatán)

Quorum sensing beyond the signaling molecules

Mayra de la Torre. Laboratorio de Fisiología Celular y Bioprocesos, CIAD Hidalgo

Chair: Teresa Hernández, CICY

17:45-18:15

Flash Talks for poster advertising (Gran Salón Yucatán)

Memory in transcriptional regulatory dynamics of Escherichia coli in stressful environments

Oscar Bruno Aguilar Luviano. Centro de Ciencias Genómicas. UNAM

The role of non-coding SNPs associated with Alzheimer's disease in neuronal subpopulations of frontal and entorhinal cortex.

Erick Cuevas Fernández. Universidad Autónoma del Estado de Morelos

Detecting recombination in sars-cov by using information theory in a bayesian context

Luis Delaye. Cinvestav Irapuato

Aberrant CLDN6 expression in gastric cancer is associated with enhanced cholesterol metabolism and reduced cytotoxic activity.

Sanyog Dwivedi. Facultad de Medicina, UNAM

Estimation of interaction strengths in the E. coli regulatory network

Jerónimo Martí Vértiz. Centro de Ciencias Genómicas. UNAM

Genomic analysis of different pathotypes of Colletotrichum lindemuthianum

Ma. Irene Morelos-Martínez. Universidad Michoacana de San Nicolás de Hidalgo

Transcriptomic Analysis of the CM-334/P. capsici/N. aberrans Pathosystem reveals molecular modulation during resistance-breaking response

Mariana Romo Castillo. Colegio de Postgraduados

Redox regulation of the mitophagy receptor Atg32

Ariann E. Mendoza Martínez. Instituto de Fisiología Celular, UNAM

Hemicellulolytic capacity of different pathotypes of Colletotrichum lindemuthianum in culture with natural substrates

Karla Morelia Díaz-Tapia. Universidad Michoacana de San Nicolás de Hidalgo

Study of the regulation of the Humphreya coffeata terpenome by carbon source

Ricardo Alfonso González Hernández. Instituto de Investigaciones Biomédicas, UNAM

Development of a rapid gold nanoparticles-based lateral flow immunoassay for the detection of dengue virus

Cynthia Martinez Liu. Universidad Autónoma de Nuevo León

Effects of gold nanoparticles functionalized with polyethyleneimine on the moss Physcomitrium patens

Zuleika Orbe Sosa. Instituto Politécnico Nacional

Design of Self-assembled Antimicrobial Protein-based Nanoparticles

Eddie Guillermo Sánchez Rueda. Instituto de Química, UNAM

Simultaneous Aerobic-Anaerobic Biodegradation Of An Industrial Effluent Of Polymeric Resins With High Phenol Concentration At Different Organic Loading Rates In A Non-Conventional UASB Type Reactor

Jesús Terreros Mecalco. Universidad Tecnológica del Valle de Toluca

The MoBiMS: A miniature mass spectrometer for monitoring volatiles in biological systems

Raúl Alcalde Vázquez. Laboratorio Nacional de Genómica para la Biodiversidad.

Exposure to bis (2-ethylhexyl) phthalate (DEHP) induces oxidative stress in human skeletal muscle cells

Elizabeth Brassea Pérez. Centro de Investigaciones Biológicas Del Noroeste S.C.

Related-Thyroid hormone genes are altered by acute exposure to 2,4-dichlorophenoxyacetic in rat testes

Vanessa Conde Maldonado. Centro de Investigación en Genética y Ambiente.

Kynurenine attenuates mitochondrial depolarization and neuronal cell death AhR-independent way in a Parkinsonian model induced by rotenone exposure.

María Del Rosario García Aguilar. Cinvestav Zacatenco.

Evaluation of the toxic activity of hexanic extract of Sedum morganianum

Cristian Romero Castillo. Universidad Popular Autónoma del Estado de Puebla.

Effects of resveratrol against Giardia lamblia trophozoites through in silico and in vitro approaches

José Roberto Vargas Villanueva. Universidad Autónoma de Coahuila.

18:15-20:15

Poster Session 1

Will be held in Hotel Holiday Inn (El Gran Salón and Foyer)

BB	BASIC BIOCHEMISTRY I
G	GENETICS, EPIGENETICS AND GENETIC REGULATION I
MV	MICROBIOLOGY & VIROLOGY I
O	OTHERS I
ROS	REACTIVE OXYGEN SPECIES
SB	SYSTEMS BIOLOGY & BIOINFORMATICS I
TP	TOXICOLOGY & PHARMACOLOGY I

18:15-19:15

Having coffee with....(Salón Celestún)

Paty León, Mayra de la Torre, Alicia González, Alain Filloux

Tuesday October 18

8:30-10:00

Plenary Symposia II (Gran Salón Yucatán)

Fluorescence Nanoscopy

Chair: Adán Guerrero, Instituto de Biotecnología, UNAM

Opening: Beyond the limit - fundamentals of super-resolution microscopy.

Diego L. Delgado Álvarez, CICESE, Baja California.

Super-resolution imaging reveals the structure disruption of Chromosome Territories 9 and 22 associated with treatment resistance in Chronic Myeloid Leukemia.

Eunice Fabián Morales, Instituto Nacional de Cancerología.

Super resolution microscopy reveals dynamic changes in the mouse sperm midpiece.

Mariano Gabriel Buffone, Instituto de Biología y Medicina Experimental, Consejo Nacional de Investigaciones Científicas y Técnicas, Argentina.

Nano-deconvolution, opening a new era of fluorescence microscopy.

Adán O. Guerrero Cárdenas, Laboratorio Nacional de Microscopía Avanzada, Instituto de Biotecnología, UNAM.

10:00-11:00

Plenary Lecture IV (Gran Salón Yucatán)

Protein Kinase C Unbalanced: Deregulated Signaling in Disease

Alexandra Newton, University of California San Diego.

Chair: Agustín Guerrero, Cinvestav, Zacatenco.

11:00-11:30

Coffee break

11:30-13:00

Simultaneous oral Sessions 1, 2, 3 (Salones Yucatán 1, 2, 3)

Yucatán 1

Chair: Luis Antonio Pérez García. Universidad Autónoma de San Luis Potosí

Functional Cyt1Aa is necessary to synergize Bin toxin against Bin-resistant larvae

Nathaly Alexandre do Nascimento. Instituto de Biotecnología, UNAM

Developed a porcine Deltacoronavirus recombinant membrane protein (rM-PDCoV) with potential use in an indirect immunoenzymatic assay (iELISA) for disease control and prevention.

Francisco Jesús Castañeda Montes. Facultad de Medicina Veterinaria y Zootecnia, UNAM.

Computational, structural and inhibitory studies on molecular interactions of the PirABvp toxin from Vibrio parahaemolyticus with their receptor on epithelial cells of shrimp hepatopancreas

Vania Flores Benítez. Universidad Autónoma de Nayarit.

Functional analysis of CSE-8: a hypothetical endoplasmic reticulum protein, chaperone of chitin synthases in Neurospora crassa

Samantha González Téllez. Centro de Investigación Científica y de Educación Superior de Ensenada.

PIR proteins and its functional role on the cell wall of Neurospora crassa

Paul Alejandro Montaña Silva. Centro de Investigación y Asistencia en Tecnología y Diseño del Estado de Jalisco.

Glycosylation of Candida albicans affects its interaction with specific receptors of the cardiac coronary endothelium

Luis Antonio Pérez-García. Universidad Autónoma de San Luis Potosí.

Yucatán 2

Chair: Víctor Aguilar Hernández. CICY

Proteome of Agave angustifolia Haw.: insights about amino acids metabolism in albino plantlets

Mauricio Andrade-Marcial. Unidad de Biotecnología, Centro de Investigación Científica de Yucatán.

Red amaranth (Amaranthus cruentus L.) as a promising source of betalains: an approach of metabolomic profile by UHPLC-MS/MS Orbitrap

Jesús Alfredo Araujo-León. Centro de Investigación Científica de Yucatán.

Isolation and characterization of SARS-CoV-2 neutralizing nanobodies

Dulce Carolina Lugo Gil. Departamento de Bioquímica. Cinvestav Zacatenco.

Molecular bases for the inhibition of the main protease (Mpro) of SARS CoV2

Zaira Pino Dueñas. Universidad Autónoma de Ciudad Juárez.

Exploring the functional role of Slm35 on mitophagy in Saccharomyces cerevisiae

Hilario Ruelas. Instituto de Fisiología Celular. UNAM.

Structural and Functional interplay between the [4Fe-4S] cluster and the active site of MUTYH and its implication in carcinogenesis

Carlos Trasviña-Arenas. University of California.

Yucatán 3

Chair: Ernesto Soto-Reyes. Universidad Autónoma Metropolitana

RNA polymerase II pausing contributes to maintain chromatin organization in the chicken erythrocytes

Andrés Penagos Puig. Instituto de Fisiología Celular, UNAM.

Unraveling the secrets of axolotl limb regeneration by the analysis of RNA seq and protein 3D structure prediction

Ernesto Soto-Reyes. Universidad Autónoma Metropolitana Unidad Cuajimalpa.

Characterization of the transcriptional and epigenetic profiles associated with the metabolic memory in vitro

Martí Wilson Verdugo. Instituto de Fisiología Celular, UNAM.

Stress-associated and growth-dependent mutagenesis is divergently regulated by c-di-AMP levels in Bacillus subtilis

Karen Abundiz Yáñez. Division of Natural and Exact Sciences. Universidad de Guanajuato.

Complement receptor 3 (CR3) is activated via an inside-out signalling pathway triggered by CD13 in human macrophages

Laura Díaz Álvarez. Instituto de Investigaciones Biomédicas, UNAM.

Resveratrol inhibits the insulin pathway in liver cells by activating PKC

Karla Daniela Hernández González. Laboratory of Signal Transduction, Department of Biochemistry, Cinvestav IPN.

Technical Conferences (Salón Mérida)

11:30-12:00

Cell culture 3D

Laura López Bañuelos, UNIPARTS

12:00-12:30

Transcriptome profile of Aedes aegypti in midgut and salivary glands post DENV-2 infection

Katherine Laiton-Donato. Centro de Investigación en Salud para el Trópico. MGI - QUÍMICA VALANER

12:30-13:00

Mentoría de mujeres en STEM, ¿te animas?

Elizabeth Brassea-Pérez, Mina Königsberg. CIBNOR, La Paz. BC. Universidad Autónoma Metropolitana. Iztapalapa.

13:00-13:15

Group photo (ESCALINATAS A LA ENTRADA DEL HOTEL FIESTA AMERICANA)

13:15-14:30

Lunch

14:30-16:15

Simultaneous Symposia (Salones Yucatán 1, 2, 3)

Yucatán 1

4. Bioenergetics and Biomembranes

In Memoriam: Heliodoro Celis Sandoval

Chair: Emma Berta Gutiérrez Cirlos Madrid, FES Iztacala, UNAM.

All roads lead to mitochondria: mitophagy and stress in Saccharomyces cerevisiae

Soledad Funes Argüello, Departamento de Genética Molecular. Instituto de Fisiología Celular, UNAM.

The bioenergetic machinery of Euglena gracilis

Héctor Vicente Miranda Astudillo, Instituto de Investigaciones Biomédicas, UNAM.

Bacillus subtilis and its respiratory chain: it breaths too

Emma Berta Gutiérrez Cirlos Madrid, FES Iztacala, UNAM.

Yucatán 2

5. Virus as experimental molecular tools

Chair: Luis Vaca Domínguez, Instituto de Fisiología Celular, UNAM.

Use of virus in experimental gene therapy

Jose Segovia, Cinvestav, Zacatenco.

The viruses we use for optogenetic manipulations

Fatuel Tecuapetla, Instituto de Fisiología Celular, UNAM.

Baculovirus display: a novel method for vaccine production

Luis Vaca, Instituto de Fisiología Celular, UNAM.

Yucatán 3

6. Plant development and specialized metabolism

Chair: Felipe Augusto Vázquez Flota, CICY.

Grow or fight: a phospho-switch prioritizes ABCG36/PEN3/PDR8-mediated transport toward defense

Markus Geisler, Department of Biology, University of Fribourg, Suiza.

The integrate use of metabolomics and transcriptomics as and strategy to identify phytochemicals compounds to use in control pest. Case of Cassia fistula and the ambrosia beetles

Enrique Ibarra Laclette, Red de Estudios Moleculares Avanzados, INECOL.

NTT connects two plant hormonal pathways

Nayelli Marsh, Cinvestav, Irapuato.

16:15-16:45

Coffee break

16:45-17:45

Plenary Lecture V (Gran Salón Yucatán)

PABMB Plenary Lecture

Cryo-EM analysis of inositol triphosphate receptor calcium channels

Erkan Karakas, Vanderbilt School of Medicine, USA.

Chair: Agustín Guerrero, Cinvestav, Zacatenco.

17:45-18:15

Flash Talks for poster advertisings (Gran Salón Yucatán)

The respiratory chain of Rhodotorula mucilaginosa

Paulina Castañeda Tamez. Instituto de Fisiología Celular, UNAM.

Priming mycobacterial esx-secreted protein B to form a channel-like structure

Abril Gijsbers. Instituto de Química, UNAM.

The human copper transporter 1 (hCTR1) as a possible transporter of Casiopeina III-ia in MDA-MB-231 cells

Rogelio Hurtado Alamea. Facultad de Química, UNAM.

Evaluation of different carbon sources in the production of carotenoids in the yeast Rhodotorula mucilaginosa



Hydrogen sulfide synthesis by yeast cystathione B-synthase is required to survive ER stress.

Elias Nieto Zaragoza. Instituto de Fisiología Celular, UNAM.

Study of Complex II biogenesis in Saccharomyces cerevisiae

Ulrik Hiram Pedroza Dávila. Instituto de Fisiología Celular, UNAM.

Liver versus Cardiac Mitochondria: Comparison of Some Effectors on the Mitochondrial Permeability Transition Pore

Carolina Ricardez García. Instituto de Fisiología Celular, UNAM.

Evaluation of multifunctional qualities of the rhizobian species Rhizobium sp. ACO-34A as a plant growth promoter rhizobacteria

Víctor Manuel Maranto Gómez. Instituto Tecnológico de Tuxtla Gutiérrez.

Exploring the functional role of the OmpR-type regulators in R. etli.

María M. Banda. Centro de Ciencias Genómicas, UNAM.

Influence of OxyR on the expression of phaseolotoxin synthesis genes in Pseudomonas savastanoi pv. phaseolicola NPS3121

Rafael Arnulfo Juárez Navarro. Universidad Autónoma de Nayarit.

Serotonin effect in early regeneration of Lumbriculus variegatus

Juana María López Martínez. Facultad de Ciencias Naturales, UAQ.

Alternative CUG Codon Usage in the Halotolerant Yeast Debaryomyces hansenii: An Analysis of Gene Expression Provides New Insights into Adaptation to Extreme Environments.

Daniel Ochoa-Gutiérrez. Facultad de Ciencias, UNAM.

An Insight into the novel hybrid regulation complex Rtg3-Nrg1 of Saccharomyces cerevisiae

Edgar Adrián Ramírez González. Instituto de Fisiología Celular, UNAM.

Characterization of Cross-kingdom tRH-target interactions and their role in Trichoderma atroviride-Arabidopsis thaliana mutualistic relationship

Daniel Rafael Saldaña Torres. Instituto Potosino de Investigación Científica y Tecnológica A.C.

Expression of IL-2, IL-4, IL-5, IL-10 and TGFβ genes in patients with COVID-19 in Mexico City.

Jennifer Viridiana Sánchez Camacho. Escuela Superior de Medicina, IPN.

Target genes, cell processes and miR-23b-3p effect on HMGB2 expression in cervical cancer

Gladys Wendy Valente Niño. Universidad Autónoma de Guerrero.

Development of a whole cell biosensor using Bacillus subtilis spores for arsenic detection in water.

Luz Idalia Valenzuela García. Centro de Investigación en Materiales Avanzados, Subsede Durango.

Plant-associated bacteria (PAB): Resources of specialized metabolites.

Reynaldo Villanueva Enríquez. Instituto de Química, UNAM.

Characterization of extracellular vesicles released by the parasite Entamoeba histolytica and evaluation of their immunomodulatory effects on human neutrophils.

Julio César Carrero. Instituto de Investigaciones Biomédicas, UNAM.

Cellular Immune Response on Cherax quadricarinatus after different immunostimulations

Crystal Guluarte. Universidad Nacional Autónoma de México.

Screening of Agave plants as alternative of α -glucosidase inhibitors source

Elia Donají Juárez Niño. CIIDIR. Instituto Politécnico Nacional, Oaxaca.

18:15-20:15

Poster Session II

Will be held in Hotel Holiday Inn (El Gran Salón and Foyer)

BB	BASIC BIOCHEMISTRY II
BT	BIOTECHNOLOGY I
G	GENETICS, EPIGENETICS AND GENETIC REGULATION II
IP	IMMUNOLOGY & PARASITOLOGY
M	MEDICINE, HEALTH & NUTRITION I
MV	MICROBIOLOGY AND VIROLOGY II

18:15-19:15

Having coffee with ... (Salón Celestún)

Adán Guerrero, Erkan Karakas, Julio Morán, Magdalena Plebanski

20:00-21:00

Business session (Salón Mérida)

Wednesday October 19

8:30-10:00

Plenary Symposia III (Gran Salón Yucatán)

Novel Research in Gene Regulation

Chair: Enrique Castaño de la Serna, CICY.

Nuclear phosphoinositides - new players in regulation of gene expression

Pavel Hozak, Institute of Molecular Genetics, Academy of Sciences of the Czech Republic.

SWI/SNF Chromatin Remodeling Enzymes in Melanocytes and Melanoma

Ivana de la Serna, Department of Cell and Cancer Biology, University of Toledo, USA.

Fibrillarin and non coding RNA in gene architecture and regulation

Enrique Castaño, CICY.

10:00 – 11:00

Plenary Lecture VI (Gran Salón Yucatán)

In memoriam: Ricardo Tapia Ibarguengoytia

Exploring the cellular mechanisms of epilepsy: from neurochemistry to electrophysiology and back

J. Fernando Peña Ortega, Instituto de Neurobiología, UNAM.

Chair: Lourdes Massieu, Instituto de Fisiología Celular, UNAM.

11:00 – 11:30

Coffee break

11:30 – 13:00

Simultaneous oral Sessions 1, 2, 3 (Salones Yucatán 1, 2, 3,)

Yucatán 1

Chair: Adrián Hernández-Díaz Couder. Instituto Nacional de Cardiología "Ignacio Chávez"

Decreased expression of CB1 receptors in atherosclerosis is associated to a vasorelaxing effect of ACEA on aortic rings

María del Rosario Álvarez Valadez. Universidad de Colima.

Cortactin deficiency induces pancreatic epithelial impairment

Abigail Betanzos. Departamento de Infectómica y Patogénesis Molecular. Cinvestav.

High fructose consumption induces lipid accumulation in adipocytes by regulation of miR-143-5p levels in extracellular vesicles

Adrián Hernández-Díaz Couder. Departamento de Inmunología, Instituto Nacional de Cardiología Ignacio Chávez.

The molecular iodine effect on the mitochondrial dynamics of neuroblastoma stem cells

Jazmin Lizeth León Pichardo. Instituto de Neurobiología, UNAM.

The combination of AZD4547 with calcitriol synergistically inhibited BT-474 breast cancer cell proliferation, stemness, and tumorsphere formation

Edgar Armando Méndez Pérez. Instituto Nacional de Ciencias Médicas y Nutrición Salvador Zubirán.

RANKL signaling in breast cancer stem cells

Alejandro Ordaz Ramos. Instituto Nacional de Medicina Genómica.

Biochemical aspects of biotin deficiency in mammals

Antonio Velázquez Arellano. Unidad de Genética de la Nutrición, Instituto de Investigaciones Biomédicas, UNAM

Yucatán 2

Chair: Julio Freyre González. Centro de Ciencias Genómicas. UNAM

Conservation analysis of sequence-divergent lincRNAs in Brassicaceae

Evelia Lorena Coss Navarrete. Unidad de Genómica Avanzada. Langebio. Cinvestav. IPN.

A metanalysis of genomewide aging assays reveals the central modulators of chronological lifespan in budding yeast

Erika Viridiana Cruz Bonilla. Unidad de Genómica Avanzada. Langebio. Cinvestav. IPN.

Advancing global regulatory network inference: an integrative framework

Juan Miguel Escorcía Rodríguez. Centro de Ciencias Genómicas, UNAM.

*Transcriptomic composition of venom glands of the recently described Mexican scorpion *Centruroides possanii**

Patricia Elizabeth García Villalvazo. Universidad de Colima.

Computational modeling of the dynamics of the gut microbiota metabolism

Cristian Mendoza Ortiz. Instituto Nacional de Medicina Genómica.

Regulatory perturbations of ribosome allocation in bacteria reshape the growth proteome with a trade-off in adaptation capacity

José Utrilla Carreri. Centro de Ciencias Genómicas, UNAM.

Yucatán 3

Chair: Pierrick GJ Fournier. CICESE

Neuroendocrine differentiation of lung cancer cells and its effect on the mice immune system

Ricardo Fosado Rodríguez. Facultad de Química, Universidad Autónoma de Querétaro.

Bone microenvironment-suppressed T cells increase bone metastases

Pierrick GJ Fournier. Centro de Investigación Científica y de Educación Superior de Ensenada.

Symmetry is more an antioxidant than an euglycemic advantage

Samuel Álvarez-Almazán. FES Cuautitlán, UNAM.

Repurposing of Metformin and Sodium Oxamate in combination with Doxorubicin, reveals intrinsic apoptosis in cervical cancer, in vitro

Izamar Delgado-Waldo. Instituto Nacional de Cancerología.

Global analysis of the cellular mechanism of metformin in a yeast model

Jimena Meneses Plascencia. Laboratorio Nacional de Genómica para la Biodiversidad.

Role of pregnancy on insulin-induced vasorelaxation: the influence of angiotensin II receptors

Betzabel Rodríguez Reyes. Escuela Superior de Medicina, IPN.

Technical Conferences (Salón Mérida)

11:30-12:00

Let's establish a new protein purification in one day, from scratch

Carlos E. Bravo, Field Applications Specialist. BIORAD

12:00-12:30

Solutions for 3D Cell Cultures.

Alfredo Javier Hernandez Juarez. Corning Life Sciences

12:30-13:00

The National Laboratory of Channelopathies (LaNCA) of the Institute of Cellular Physiology

Arturo Hernández Cruz. Instituto de Fisiología Celular, UNAM.

13:00 – 14:30

Lunch

14:30 – 16:15

Simultaneous Symposia (Salones Yucatán 1, 2, 3)

Yucatán 1

7. Oxidative stress by xenobiotics: toxicity and treatments

Chair: José Víctor Calderón Salinas, Cinvestav, Zacatenco.

Oxidative stress in metabolisms, poisoning, chemotherapy and radiotherapy: The oxidation for better and for worse

José Víctor Calderón Salinas, Cinvestav, Zacatenco.

Cysteine metabolism and transport in arsenic exposure.

María E. Gonsebatt, Instituto de Investigaciones Biomédicas, UNAM.

Oxidative stress as an inducer of bacterial "persistence" in the origin of mutations resistant to antibiotic.

Rafael Camacho Carranza, Instituto de Investigaciones Biomédicas, UNAM.

Yucatán 2

8. Molecular aspects of bacterial ecology

Chair: Rodolfo García Contreras, Facultad de Medicina, UNAM.

Regulation of bacterial virulence by saturated fatty acids

Israel Castillo Juárez, Colegio de Postgraduados.

Plasmid dynamics: from single-cells to microbial communities

Rafael Peña Miller, Centro de Ciencias Genómicas, UNAM.

Plant-bacterial interactions at the root, fostering good relationships by metacommunity lessons

Luis David Alcaraz Peraza, Facultad de Ciencias, UNAM.

*Public good exploitation in *Pseudomonas aeruginosa**

Rodolfo García Contreras, Facultad de Medicina, UNAM.

Yucatán 3

9. Betaglycan, a multi-purpose and versatile growth factor co-receptor

Chair: Fernando López Casillas, Instituto de Fisiología Celular, UNAM.

From betaglycan to TGFBR3L: Deciphering mechanisms of inhibin action

Daniel J Bernard, Department of Pharmacology and Therapeutics, McGill University, Montreal, Quebec, Canada.

Sensitization of cells to TGF- β by the co-receptor betaglycan: structure and mechanism

Andrew P Hinck, Department of Structural Biology, University of Pittsburgh, USA.

Betaglycan's mysterious in vivo affairs

Fernando López-Casillas, Instituto de Fisiología Celular, UNAM.

16:15 – 16:45

Coffee break

16:45 – 17:45

Plenary Lecture VII (Gran Salón Yucatán)

Unraveling the transcriptional nuances of the chaperone-usher fimbrial operon repertoire of an attaching and effacing bacterial pathogen

José Luis Puente García, Instituto de Biotecnología, UNAM

Chair: Bertha González, Instituto de Fisiología Celular, UNAM

17:45 – 18:15

Flash Talks for poster advertisings (Gran Salón Yucatán)

Detection and validation of molecular markers related to the two-way relationship between Renal Cell Carcinoma and Chronic Kidney Disease

Arijahir Alexis Mancio Cárdenas. Cancerología.

Gastroprotective activity of Callistemon citrinus extract in an induction model of gastric ulcers in obese rats

Jonathan Saúl Piñón-Simental. Universidad Michoacana de San Nicolás Hidalgo.

KCNJ11 and ABCC8 polymorphisms associated to sulfonylurea secondary failure in Type 2 Diabetes Mellitus

Nidia Samara Rodríguez Rivera. UNAM, Facultad de Medicina.

GC/MS Analysis, Antioxidant Activity, and Antimicrobial Effect of Pelargonium peltatum (Geraniaceae)

Gilberto Velázquez-Juárez. Universidad de Guadalajara.

Role of Taurine as a preventive component in Vascular Cognitive Impairment

Andrea Villalobos Villaseñor. Universidad autonoma del estado de Morelos.

Black yeasts from deep-sea sediments of the Gulf of Mexico: cell growth under oligotrophic and hypersaline conditions

Maria Dolores Camacho López. Centro de Investigación Científica y de Educación Superior de Ensenada.

In vitro antagonism, effect on tomato plants in greenhouse and functional genomic analysis of the thermotolerant strain Bacillus velezensis AF12

Salvador Chávez Avila. Universidad Michoacana de San Nicolás de Hidalgo.

Electrochemical immunosensor for the detection of antibodies against an epitope of GP5 protein from PRRS virus.

Luis Enrique Franco Correa. Universidad Michoacana de San Nicolás de Hidalgo.

Molecular evolution of the Spike protein of SARS-CoV-2: evidence of adaptation

Georgina I. López Cortés. Instituto de Investigaciones Biomédicas, UNAM.

T6SS secretion mechanism and novel protein-protein interactions of TecA, a Burkholderia cenocepacia toxin

Julia Monjaras Fera. Queens University Belfast.

Action mechanisms of Rouxiella Badensis SER3 against postharvest fungal pathogens from a genomic perspective

Luzmaria Raquel Morales Cedeño. Universidad Michoacana de San Nicolás de Hidalgo.

Fungal Puzzle Piece: Characterization of Cell Wall Protein ACW-1 in Neurospora crassa

Ana Sofía Ramírez Pelayo. Centro de Investigación y Asistencia en Tecnología y Diseño del Estado de Jalisco, A.C.

Study of prokaryotic diversity and functional markers genes involved in the hydrocarbon degradation and the antibiotic resistance in sediments of the coast of Baja California

Ileana Sarahi Ramos Mendoza. Universidad Autónoma de Baja California.

Extracellular vesicles from Neurospora crassa: vehicles for cell wall-related proteins.

Daniel Alfonso Salgado-Bautista. Centro de Investigación Científica y de Educación Superior de Ensenada.

Insights into the mechanism used by a bacterial community to degrade lignocellulose

Mónica Noel Sánchez González. Universidad Autónoma de Yucatán.

Genome mining of Bacillus halotolerans AF23, a thermo- and halotolerant strain with plant growth promoting activities

María Fernanda Valencia Marín. Universidad Michoacana de San Nicolás de Hidalgo.

Prolactin prevents oxidative stress-induced cell death in hippocampal neurons

Fernando Macías. Instituto de Neurobiología, UNAM.

Modulation of Bone Cell Activity and Bone Remodeling by Sulfated Polysaccharides Derived from Brown Algae

Jessica Sharlin Landeros Juárez. CICESE.

Proteomic and molecular study of somatic embryogenesis in Coffea spp.

Ana Odeth Quintana Escobar. Centro de Investigación Científica de Yucatán.

MEDIATOR18 regulates Arabidopsis root system architecture, auxin signaling and is a critical factor for cell viability in root meristems

Javier Raya González. Universidad Michoacana de San Nicolás de Hidalgo.

18:15 – 20:15

Poster Session III

Will be held in Hotel Holiday Inn (El Gran Salón and Foyer)

BB	BASIC BIOCHEMISTRY III
G	GENETICS, EPIGENETICS AND GENETIC REGULATION III
M	MEDICINE, HEALTH & NUTRITION II
MV	MICROBIOLOGY AND VIROLOGY III
NN	NEUROSCIENCES AND NEUROBIOLOGY
ST	SIGNAL TRANSDUCTION I

18:15-19:15

Having coffee with...(Salón Celestún)

Ivana de la Serna, Fernando Peña Ortega, José Luis Puente, Selene Fernández

Thursday October 20

8:30-10:00

Symposia Hispano - Mexicano (Gran Salón Yucatán)

Emergency vaccines and new therapies

Chair: Agustín Guerrero, Cinvestav, Zacatenco.

Vaccine candidates against coronavirus variants: the role of the Biochemists.

Beatriz Xoconostle, Departamento de Biotecnología y Bioingeniería. Cinvestav, Zacatenco.

Interfering the SARS-CoV-2/ACE2 interaction and biophysical characterization of viral spike variants

Jerónimo Bravo Sicilia, Instituto de Biomedicina de Valencia - CSIC, España.

Responding to a pandemic with vaccines: Mexico and the world

Laura Alicia Palomares Aguilera, Instituto de Biotecnología, UNAM.

New frontiers in vaccines and nanotechnology

Magdalena Plebanski, RMIT University, Melbourne, Victoria, Australia.

10:00-11:00

Plenary Lecture VIII (Gran Salón Yucatán)

Reactive oxygen species: signaling molecules in neuronal death and development

Julio Morán Andrade, Instituto de Fisiología Celular, UNAM.

Chair: Lourdes Girard, Centro de Ciencias Genómicas, UNAM.

11:00-11:30

Coffee break

11:30-12:30

Plenary Lecture IX (Gran Salón Yucatán)

Long non-coding RNAs as evolutionarily fluid chromatin weavers

Selene L. Fernández-Valverde, LANGE BIO, Irapuato.

Chair: Teresa Hernández, CICY.

12:30-13:00 (ESCALINATAS A LA ENTRADA DEL HOTEL FIESTA AMERICANA)

Group photo

13:00 – 14:30

Lunch

14:30-16:30

Poster Session IV

Will be held in Hotel Holiday Inn (El Gran Salón and Foyer)

BB BASIC BIOCHEMISTRY IV
BT BIOTECHNOLOGY II
G GENETICS, EPIGENETICS AND GENETIC REGULATION IV
O OTHERS II
SB SYSTEMS BIOLOGY & BIOINFORMATICS II
ST SIGNAL TRANSDUCTION II
TP TOXICOLOGY II

17:00-18:00

Closing Lecture (Gran Salón Yucatán)

The James Webb telescope

Julieta Fierro Gossman, Instituto de Astronomía, UNAM.

Chair: Lourdes Girard, Centro de Ciencias Genómicas, UNAM.

18:00 - 18:30

Final announcements and closing ceremony (Gran Salón Yucatán)

21:00-24:30

Farewell dinner (Quinta Montes Molina)