

SMB



XXX CONGRESO NACIONAL DE BIOQUÍMICA

2-8 de noviembre de 2014 · Guadalajara, Jal.

Poster Sessions

SYSTEMS BIOLOGY & BIOINFORMATICS**SB-1**

Inferring microRNA functions: regulation beyond direct targets. Cesaré Ovando-Vázquez, **Roberto Álvarez-Martínez** and Cei Abreu-Goodger. LANGEBIO – CINVESTAV – IPN. Irapuato

SB-2

Evolution of Codon Usage Bias in Bacteria. **Guadalupe Arellano** and Luis Delaye. CINVESTAV – IPN Unidad Irapuato

SB-3

Adaptive mutations typically increase the performance of metabolism independently from one another. **J Abraham Avelar Rivas** & Alexander de Luna. LANGEBIO – CINVESTAV – IPN. Irapuato

SB-4

Evolutionary codependence as crucial information during LAO protein redesign. **Jesús Agustín Banda Vázquez**, Rogelio Rodríguez Sotres, Karina Marisol Maya Ramírez y Alejandro Sosa Peinado. Facultad de Medicina. UNAM

SB-5

Core and pan-genome analysis of the genus *Streptococcus*. **Hugo Rafael Barajas de la Torre** and Luis David Alcaraz. Departamento de Ecología de la Biodiversidad. Instituto de Ecología, UNAM

SB-6

Molecular flexibility of a family of periplasmic binding proteins for basic aminoacids: LAO-binding protein. **Tania Raquel Berrocal Gama**, Andrés Escandón Flores, Alejandro Sosa Peinado. Facultad de Medicina. UNAM

SB-7

Evaluation of parameters and adequate sampling to measure sea urchin sperm motility. **Cecile Bustamante-Gómez**, Juan E Sosa-Hernández, Aarón Vazquez Jiménez, Jesús Santana-Solano, Jesús Rodríguez-González and Blanca Estela Galindo. CINVESTAV – IPN. Monterrey

SB-8

High-resolution genome-wide aging screens reveal novel molecular mechanisms of lifespan extension by dietary restriction. **Sergio E. Campos-Rodríguez** & Alexander de Luna. LANGEBIO – CINVESTAV – IPN. Irapuato

SB-9

Evolutionary and physiological correlation of redundant gene dosage within the *Debaryomyces hansenii* genome, a preliminary approach. **Angeles Cancino-Rodezno**, Luis Lozano, Luisa Alba-Lois, Viviana Escobar-Sánchez, Claudia Segal-Kischinezky, Víctor Valdés-López, Alfonso Vilchis-Peluyera. Departamento de Biología Celular, Facultad de Ciencias, UNAM

SB-10

Microbial evolution: a systems biology approach. **Luis Delaye**. CINVESTAV – IPN. Irapuato

SB-11

Dendroctonus rhizophagus Thomas Bright cytochrome *CYP6DG1V1* structure prediction and interaction analysis with α -pinene. **María Fernanda López Gómez**, Gema Ramírez Salinas, José Correa Basurto, Gerardo Zúñiga y Arnulfo Albores Medina. CINVESTAV – IPN Zacatenco

SB-12

Improving sequence capture design for genetically modified organisms identification by next generation sequencing. **Roberto Galindo Ramírez**, Salvador Ángel Romero Martínez y Abraham Itzcóatl Acatzi Silva. Subdirección de Secuenciación y Bioinformática. SENASICA

SB-13

BAC-end sequencing of a BAC-based genomic library of *Saccharomyces pastorianus* for genome sequence assembly improvement. **Gómez-Muñoz Cintia**, Riego-Ruiz Lina, Damas-Buenrostro Luis. Instituto Potosino de Investigación Científica y Tecnológica, A.C.

SB-14

Evolution of global gene expression from fermentative to glycerol-based respiratory growth in *Escherichia coli* and *Schizosaccharomyces pombe*: A comparative transcriptome analysis using RNA-seq. Joivier Vichi Lozada, Leticia Olvera Rodríguez, Enrique Morett Sánchez Verónica Jiménez Jacinto y **Armando Hernández Mendoza**. Facultad de Ciencias, UAEM

SB-15

Study *In silico* of protein-protein interaction of T-type voltage-gated Ca²⁺ channels and auxiliary subunits. **Teresa Hernández-Segura**, Nidia-Beltrán, Jacaranda Rosendo-Pineda & Heriberto Manuel Rivera., Facultad de Medicina, UAEM

SB-16

Phylogenetic analysis of Zinc-dependent alcohol dehydrogenases and aldehyde dehydrogenases in animals, **Adriana Julián-Sánchez**, Paola Vara-Cisneros, Juan José Alvarado-Leaño, Carlos Gaona-López, Aída Hernández-Tobías, and Héctor Riveros-Rosas. Facultad de Medicina, UNAM

BASIC BIOCHEMISTRY**B-1**

Cleavage of recombinant Proenkephalin A overexpressed in Chinese hamster ovary cells. Inés Velázquez-Quesada, **Pilar Sarah Acevo-Rodríguez**, Silvia Duran, Marie-Hélène Metz-Boutigue, Osvaldo Vindrola, María-Rosa Padrós. Instituto de Fisiología, BUAP

B-2

Factors regulating the expression of heterologous proteins in *E.coli*; using seven homologous triosephosphate isomerases (TPI) from different sources. **Beatriz Aguirre López**, Nallely Cabrera González, Concepción José Núñez, Marietta Tuena Sangri, Ruy Pérez Montfort and Armando Gómez Puyou. Instituto de Fisiología Celular UNAM

B-3

Insights in the structure and association of the capsomer of Parvovirus B19. **Mayra Patricia Alcántara-Sol**, Ismael Bustos-Jaimes. Facultad de Medicina, UNAM

B-4

Characterization of two cysteine-less wild-type triosephosphate isomerases and a cysteine containing mutant enzyme from lactic acid bacteria. **Ruy Perez-Montfort**, Nallely Cabrera Gonzalez, Alfredo Torres Larios, Andres Hernandez Arana and Valeria Guzman Luna. Instituto de Fisiología Celular, UNAM

B-5

Identification of lectin from teosinte coleoptile (*Zea diploperennis*, *Zea mexicana* y *Zea parviglumis*) by RT-PCR. **Jaquelina Alvarado Gil**, María del Socorro Pina Canseco, Eduardo Pérez Campos, Gabriel Mayoral Andrade, Flavio Aragón Cuevas, Alejandro Cisneros Solano, Nora Hilda Rosas Murrieta, Margarito Martínez Cruz. Instituto Tecnológico de Oaxaca

B-6

Analysis of Enzyme Kinetic Aspects of Phenanthrene Dihydrodiol Dehydrogenase in *Mucor circinelloides* YR-1. **Jazmin Areli Alvarez Copado**, Roberto Zazueta Sandoval. Universidad de Guanajuato

B-7

PepGMV infection benefit the interaction of the host plant with the withefly *T. vaporariorum* by changing the defense responses. **Yesenia Ithaí Ángeles López**, Martin Heil. CINVESTAV – IPN Unidad Irapuato

B-8

Development and evaluation of a recombinant sperm-activating peptide tagged with fluorescent proteins. **César Arcos Hernández**, Francisco Romero Corpus, Yoloxochitl Sánchez Guevara, Alberto Darszon, Takuya Nishigaki and Carmen Beltrán. Instituto de Biotecnología, UNAM

B-9

Identification of structural determinants involved in the difference of conformational change in EF-hand motifs. **Emma L. Arévalo Salina**, Joel Osuna Quintero, Humberto Flores Soto y Gloria Saab Rincón. Instituto de Biotecnología, UNAM

B-10

Engineering the reaction media to enhance the enzymatic synthesis of a sugar-based surfactant. **Rodrigo A Arreola Barroso**, Gloria Saab Rincón. Instituto de Biotecnología, UNAM

B-11

Electrophoretic analysis of maize stressed with *A. parasiticus*. **Adriana M. Arrijoa López**, Marco A. Sánchez Medina, Pérez Cervera Yobana, Alma D. Pérez Santiago. Instituto Tecnológico de Oaxaca

B-12

Capsaicinoid accumulation in *in vitro* cultured *Capsicum chinense* placental tissue depends on *in situ* synthesis of valine and phenylalanine. **Fray M. Baas-Espinola**, Lizbeth A. Castro-Concha and María de Lourdes Miranda-Ham. Centro de Investigación Científica de Yucatán

B-13

Effect of the R3W, C27G, F211I, and Q279 somatic mutations present in human cancer cells on Gpn3 function. **Angel Adán Barbosa Camacho**, Selene C Acosta Morales, Olga L Ramírez Ramírez, Sonia G Peña Gómez, Angélica Y Robledo Rivera, Roberto Sánchez Olea, and Mónica R Calera. Instituto de Física, Universidad Autónoma de San Luis Potosí

B-14

Establishment of a Silver Staining System on Polyacrylamide Gels for Electrophoretic Analysis of Protein Patterns from Human Urine. **Mónica Janett Muñoz Contreras**, Magda Hernández Hernández, Jaime Morales Romero, Hilda Montero L de Guevara, Arturo Rodríguez Hernández, Clara Luz Sampieri Ramírez. Facultad de Química, Universidad Veracruzana

B-15

Evaluation of the cytotoxic activity of organic extracts of *Juniperus monticola* form *monticola* Martínez on breast human cancer cell lines. **Dalia Barrios-Palacios**, Nadia Judith Jacobo-Herrera, Claudia Tzasná Hernández-Delgado, Manuel Jiménez-Estrada. Instituto de Química, UNAM

B-16

Relation between simvastatin and mitochondrial uncoupling protein 2 in PAE cells. **Adán Barrios Rivera**, Andrea Ximena Girón Ceballos, Vicente Castrejón-Téllez. Instituto Nacional de Cardiología “Ignacio Chávez”

B-17

Thermodynamic characterization of three Triosephosphate isomerases from representative, yet unexplored species from the *Eukarya* domain. **Luis Arturo Becerril Sesín**, Mariana Schulte Sasse Jiménez, Sergio Romero Romero and D Alejandro Fernández Velasco. Depto. Bioquímica. Facultad de Medicina. UNAM

B-18

Influence of Microbial Inoculation on Phenolic Content and the Therapeutic Properties of Common Bean. **Vanessa Dianne Bravo García**, Huberto González-Rayó, Alejandra Ochoa Zarzosa, Josué Altamirano-Hernández. IIQB, Universidad Michoacana

B-19

Evaluation of melatonin as an adjuvant therapy in a model of experimental autoimmune encephalomyelitis. **Ana L Briones Torres**, Janeeth Bañuelos León, Margarita Cid Hernández, Celso Cortés Romero, Genaro Gabriel Ortiz y Fermín Pacheco Moisés. Departamento de Química. CUCEI. Universidad de Guadalajara

B-20

Increased lung apoptosis in *Autophagin-1* deficient mice after bleomycin-induced injury. **Sandra Cabrera Benítez**, Mariana Maciel Herreras, Teresa Nava Ramírez, Fabián Vergara Ovalle, Miguel Gaxiola Gaxiola, Moisés Selman Lama, Annie Pardo Cemo FC, UNAM

B-21

Metabolic effect of constant high pH on *S. cerevisiae*. **Martha Calahorra**, Antonio Peña, Norma Silvia Sánchez, Helber Álvarez, Jorge Ramírez and Laura Ongay. Instituto de Fisiología Celular. UNAM

B-22

Oligomerization of nitrilases in catalytic filaments. **Alejandro Evaristo Cáliz Rodríguez**, Georgina Garza-Ramos Martínez. Departamento de Bioquímica, Facultad de Medicina, UNAM

B-23

Protection of human ALDH2 of the inactivation by lipid peroxidation products by site directed mutagenesis. **Luis F Calleja-Castañeda** and José S Rodríguez-Zavala. Instituto Nacional de Cardiología

B-24

Matrix metalloproteinase (MMP)-19 deficient fibroblasts display a profibrotic phenotype. **María del Jazmín Calyeca Gómez**, Daniel Paul Jara Pelaez, Yair Romero López, Luis Antonio Plácido Méndez, Vilma Maldonado Lagunas, Moisés Eduardo Selman Lama, Annie Pardo Cemo. Facultad de Ciencias, UNAM

B-25

Functional analysis of the NADP-Dependent glutamate dehydrogenase (NADP-KlGdh1) of *Kluyveromyces lactis* and (NADP-KlGdh1) of *Lacchancea kluyveri*. **José Carlos Campero-Basaldúa**, James E. González Flores, Daríel Márquez Gutiérrez and M Alicia González Manjarrez. Department of Biochemistry and Structural Biology. Instituto de Fisiología Celular, UNAM

B-26

Structural Determinants of Amyloid Fibril Formation in Triosephosphate Isomerase. **Edson Norberto Cárcamo Noriega**, Gloria Saab Rincón, Filiberto Sánchez López. Instituto de Biotecnología, UNAM

B-27

Expression and activity of the alternative oxidase in *Ustilago maydis* under different carbon and nitrogen sources. **Christian Adrián Cárdenas Monroy**, Lucero Romero Aguilar, Héctor Vázquez Meza, Gabriela Piñón Zárate and Juan Pablo Pardo Vázquez. Facultad de Medicina, UNAM

B-28

Structural studies of glutamyl tRNA reductase. **Daniel Eduardo Rodríguez Chamorro**, Alfredo Torres Larios. Instituto de Fisiología Celular, UNAM

B-29

Localization of enzymes involved in nitrogen metabolism in *Capsicum chinense* Jacq. using *in situ* hybridization techniques. **Lizabeth A. Castro-Concha**, Raúl A. Manzanilla Rivas and María de Lourdes Miranda-Ham. Unidad de Bioquímica y Biología Molecular de Plantas, CICY

B-30

Study of the interactions of atypical subunit ASA1 in the ATP synthase of *Polytomella* sp. **Lilia Colina Tenorio**, Héctor Vicente Miranda Astudillo, Araceli Cano Estrada, Miriam Vázquez Acevedo, Diego González Halphen. Instituto de Fisiología Celular. UNAM

B-31

The Role of the Erythrocytes in the Serum Enzyme Levels that Regulates Nitrogen Metabolism in Humans: the OTC. **Martha L Contreras Zentella**, Pablo Rangel Silva, Rolando Hernández Muñoz. Instituto de Fisiología Celular, UNAM

B-32

cDNA cloning of fructose bisphosphatase and tissue expression in the shrimp *Litopenaeus vannamei*. **Abdiel Keni Cota Ruiz**, Alma Beatriz Peregrino Uriarte, Gloria Yepiz Plascencia. Centro de Investigación en Alimentación y Desarrollo, A. C

B-33

Proteolytic activity in pollen and pollen tube by 2D zymographic analysis. **Yuridia Cruz González Zamora**, Lilia Angélica Bernal Gracida, Felipe Cruz García. Facultad de Química, UNAM

B-34

Physicochemical characterization of the folding and binding mechanisms of ArtJ, a substrate-binding protein from *Geobacillus stearothermophilus*. **Francisco Aarón Cruz Navarrete**, Haven López, Nancy O Pulido Mayoral, Jesús Renan Vergara Gutiérrez, Alejandro Sosa Peinado and D Alejandro Fernández Velasco. Departamento de Bioquímica, Facultad de Medicina, UNAM

B-35

Rewriting the terminal marking mechanism by deamidation in human triosephosphate isomerase. **Ignacio de la Mora-de la Mora**, Alfredo Torres-Larios, Sergio Enríquez Flores, Gabriel López-Velázquez, Sara Teresa Méndez-Cruz, Itzhel García-Torres, Saúl Gómez-Manzo, Jaime Marcial-Quino, América Vanoye Carlo, Horacio Reyes-Vivas, Adriana Castillo-Villanueva, Angélica Torres Arroyo, Jesús Oria-Hernández. Laboratorio de Bioquímica Genética, Instituto Nacional de Pediatría

B-36

Kinetic and metabolic analysis of tumor Krebs cycle. **Isis Del Mazo-Monsalvo**, Ricardo Jasso-Chávez and Álvaro Marín-Hernández. Instituto Nacional de Cardiología, Ignacio Chávez

B-37

Molecular characterization and tissue expression of betaine aldehyde dehydrogenase from white shrimp *Litopenaeus vannamei*. **Delgado-Gaytan F**, Hernández-Palomares MLE, Soñanez-Organis JG, Stephens-Camacho NA, Sánchez-Paz JA, Muhlia-Almazán A, Valenzuela-Soto EM, Rosas-Rodríguez JA. Centro de Investigación en Alimentación y Desarrollo, A.C.

BIOTECHNOLOGY**BT-1**

Isolation and identification of thermophilic bacteria degrading hydrocarbons obtained from hot springs. **Ramiro Aldama Hernández**, Gladis Yazmín Escobar Puebla, Jeiry Toribio Jiménez, Miguel Ángel Rodríguez Barrera and Yanet Romero Ramírez. Research Laboratory in Biotechnology and Microbial Genetics, Autonomous University of Guerrero

BT-2

Curtobacterium sp. strain MR2 exhibits two lead-resistance mechanisms dependent of cell density. **Carlos Juan Alvarado López**, Luis Gerardo Treviño Quintanilla, Laura Stephania Colín Rosette. Universidad Politécnica del Estado de Morelos

BT-3

The role of Zn in the growth and development of *Phaseolus vulgaris* L.: anatomical and morphological effects. **Julio César Amezcua-Romero**, Miguel Lara Flores. ENES, Unidad León– UNAM

BT-4

Alkaline phosphatase is a putative receptor of Cry1Ab and Cry1Ac toxins from *Bacillus thuringiensis* in stem borer *Diatraea magnifactella* Dyar. **Iván Arenas Sosa**, Fernando Zúñiga Navarrete, Ángel Flores Alcantar, Laura Patricia Lina García, Mary Carmen Torres Quintero, Guadalupe Peña Chora and Víctor Hernández Velázquez. Centro de Investigación en Biotecnología, UAEM

BT-5

Role of the rhizosphere microbiome in the phytoremediation of the organochlorine pesticide endosulfan by Basil (*Ocimum basilicum*) **Jackeline Lizzeta Arvizu Gómez**, Alejandro Hernández Morales, Aideé Cristina Ibarra Parra, Guadalupe Yaraceth Ochoa De Luna, Gabriel Palma Ayala, Verónica Alejandra Mondragón Jaimes, Jesús Bernardino Velázquez Fernández. Posgrado en Ciencias Biológico Agropecuarias y Pesqueras. Universidad Autónoma de Nayarit

BT-6

Insight of the active site of a fungal laccase: A molecular dynamic simulation. **Mayra Guadalupe Avelar Frausto**, Carmen Nina Pastor Colón, Sergio Andrés Águila Puentes, Marcela Ayala Aceves. Instituto de Biotecnología, UNAM

BT-7

Study of Agave tequilana leaves an alternative biomass of sugars and cellulosic material for the production of second generation bioethanol. **María Elisa Evangelina Avila Gaxiola**, Jorge Carlos Avila Gaxiola, Gelacio Atondo Rubio, Oscar Jesús Velarde Escobar, Francisco Ramos Brito, Josefa Adriana Sañudo Barajas, Cristo Manuel Yee Rendon. Facultad de Ciencias Físico – Matemáticas, Universidad Autónoma de Sinaloa.

BT-8

Study of acid-enzymatic hydrolysis of Agave tequilana Weber azul leaf for the production of second generation bioethanol. **Maria Elisa Evangelina Avila-Gaxiola**, Jorge Carlos Avila Gaxiola, Lorena Amaya-Delgado Oscar Jesús Velarde Escobar, Francisco Ramos Brito, Gelacio Atondo-Rubio, Cristo Manuel Yee-Rendon. Facultad de Ciencias Físico-Matemáticas, Universidad Autónoma de Sinaloa

BT-9

Effect of fatty acids and derivatives from avocado on the regulation of innate immunity in bovine mammary epithelial cells infected with *Staphylococcus aureus*. **Marisol Báez-Magaña**, Rafael Salgado-Garciglia, Rodolfo López-Gómez, Lourdes Macías Rodríguez, Alejandra Ochoa-Zarzosa, Joel Edmundo López-Meza. FMVZ, UMSNH

BT-10

Molecular characterization of the acidic dehydrin Ops DHN1 from *Opuntia streptacantha*. **IE Hernández-Sánchez**, DM Martynowicz, AA Rodríguez-Hernández, AL Salazar-Retana, A Becerra-Flora, MB Pérez-Morales, SP Graether and JF Jiménez-Bremont. División de Biología Molecular, Instituto Potosino de Investigación Científica y Tecnológica AC

BT-11

Characterization of cold-adapted digestive cathepsin D aspartic peptidase in American lobster (*Homarus americanus*). **Betsaida Bibo**, Anthony O'Donoghue, Liliana Rojo, Charles Craik, Fernando García-Carreño. Centro de Investigaciones Biológicas del Noroeste

BT-12

Isolation of first genes from carotenoid biosynthesis pathway phytoene synthase, phytoenedesaturase and ζ -carotene isomerase from *Bixaorellana*. **Oralia Caamal-Hau**, Yair Cárdenas-Conejo, Margarita Aguilar Espinosa, Nayeli Romero-López, and Renata Rivera-Madrid. Centro de Investigación Científica de Yucatán

BT-13

Production of xylanases from *Serratia sp.* isolated of the gut of bark beetle of *Dendroctonus* genera (Curculionidae: Scolytinae). **Claudia Cano Ramírez**, Alejandro Santiago Hernández, Gerardo Zúñiga Bermúdez, Flor Nohemí Rivera Orduña and Ma. Eugenia Hidalgo Lara. CINVESTAV – IPN Zacatenco

BT-14

Degradation of antibiotics by basidiomycetes fungi (*Trametes versicolor*, *Lentinula dodes*, *Lentinula boryana*, *Pleurotus djamor*, *Pleurotus djamor var roseus*). **Víctor Carpanta**, Alexis Joavany Rodríguez, Ma. Lourdes Acosta- Urdapilleta, Elba Villegas. Facultad de Ciencias Biológicas, UAEM

BT-15

Biomimetic coats for improving the interaction and stability of DNA-delivering nanoparticles. DG Carrasco-González, LM **López-Marín**, B Millán-Chiu, G Hernández-Padrón, P Salas-Castillo and AM Loske-Mehling. Centro de Física Aplicada y Tecnología Avanzada, UNAM

BT-16

Functionalization of iron nanoparticles (FeNP's) with proteins secreted by *Streptococcus pneumoniae*, which bind haem and haemoglobin. **Mariana Carrillo Morales**, Edgar Augusto Ortiz Benítez, Alejandra Stephany Rodríguez Leviz, Norma Velázquez Guadarrama, Jesús Fandiño Armas y José de Jesús Olivares Trejo. Posgrado en Ciencias Genómicas. Universidad Autónoma de la Ciudad de México

BT-17

Regulation of morricin synthesis. **Luz Edith Casados-Vázquez** and Eleazar Barboza Corona. División de Ciencias de la Vida. Departamento de Alimentos. Universidad de Guanajuato

BT-18

Preliminary analysis of protein content in huitlacoche. **Ariana Zavala Moreno**, Juan Pablo Carrillo Montes, Lucero Aguilar Romero y Roberto Arreguín Espinosa Instituto de Química. UNAM

BT-19

Pycnoporus sanguineus acetic extract insecticidal effect on *Spodoptera frugiperda* larvae. Silvia Hernández, Laura Lina, Ma. Lourdes Acosta-Urdapilleta, Alexis Rodríguez, Laura Lina, **Elba Villegas**, Centro de Investigación en Biotecnología, UAEM

BT-20

Expression of the hemagglutinin-neuraminidase's ectodomain from *Rubulavirus porcine* in the yeast *Pichia pastoris*. **José Luis Cerriteño-Sánchez**, Gerardo Santos-López, Nora Hilda Rosas-Murrieta, Julio Reyes-Leyva, Irma Herrera-Camacho Laboratorio de Bioquímica y Biología Molecular. ICUAP-BUAP

BT-21

Partial characterization of a lectin-protease inhibitor fraction from Tepary bean (*Phaseolus acutifolius*). **Cervantes Jiménez Ricardo**, Zamora Huerta Andrés, Herrera García Andrea, Sosa Márquez Iván, López Martínez FJ, Blanco Labra Alejandro, Castro Guillen José Luis, Mendiola Olaya Elizabeth, Moreno Celis Ulisses, Ferriz Martínez Roberto, García Gasca Teresa. Facultad de Ciencias Naturales. Universidad Autónoma de Querétaro

BT-22

Transcriptional profile of leaves in *Solanum lycopersicum* mycorrhizal plants using RNA-seq. **Rocío Guadalupe Cervantes-Gómez**, Abraham Cruz-Mendivil, Claudia María Ramírez-Douriet, Mario Alonso Bueno-Ibarra, Carlos Ligné Calderón-Vázquez, Melina López-Meyer. CIIDIR-Sinaloa. IPN

BT-23

Physiological and molecular characterization of the response to drought in four *Brachypodium distachyon* natural variants. **Mariana E Cesario-Solis**, Amado Ortiz-Yescas, Julián M Peña-Castro, Blanca E Barrera-Figueroa Biotecnología Vegetal. Instituto de Biotecnología, Universidad del Papaloapan

BT-24

Diazotrophic potential among bacterial communities associated with wild and cultivated agaves. **Damaris Desgarnes**, Etzel Garrido, Miryam J Torres-Gómez, Juan José Peña-Cabriales and Laila P Partida-Martínez. Ingeniería Genética, CINVESTAV – IPN. Irapuato

BT-25

Expressed genes in *Capsicum annum* transformed roots in interaction with *Rhizoctonia sp.* Binucleate. **César Díaz-Pérez**, María de Jesús González Ramos, Lenin Sánchez Calderón, Saúl Fraire Velázquez. Laboratorio de Biología Integrativa de Plantas y Microorganismos. Universidad Autónoma de Zacatecas

BT-26

Isolation and Characterization of Denitrifying rhizobacteria from *Portulacaoleracea* L. in Chinampa: an Anthropogenic Crop Soil and Wetland in the Valley of Mexico. **Salvador Embarcadero Jiménez**, Brenda Román Ponce, Flor Nohemí Rivera Orduña, En Tao Wang-Hu. Escuela Nacional de Ciencias Biológicas. IPN

BT-27

Intra and extracellular metabolite analyses on the accumulation of aromatic intermediates as an effect of carbon flux increase due to the presence of the Plasmid pJLBaroGfbrktA in a Δ aroC *E. coli* strain. **Magda Karina Espíndola Martínez**, Luz María Martínez-Mejía, Guillermo Gosset Lagarda, and Georgina Teresa Hernández-Chávez. Instituto de Biotecnología, UNAM

BT-28

Detection of anti-cancer proteins in the atypical crystalline inclusions of two *Bacillus thuringiensis* isolates. **Astrid Nalleli Espino Vázquez**, Luis Jesús Galán Wong y Benito Pereyra Alfárez. Instituto de Biotecnología. Facultad de Ciencias Biológicas. UANL

BT-29

Evaluation of soil *Streptomyces* strains with antagonist activity against diverse fungal plant pathogens. **Zahaed Evangelista-Martínez**, Evangelina Quiñones-Aguilar, Gabriel Rincón-Enríquez, Luis Valera-Montero. CIATEJ

BT-30

Study of the hydrodynamic effects and dissolved oxygen on the growth, morphology and laccase production by *Pleurotusostreatus* CP50 in submerged cultures. **Karen Ibeth Fernández Alejandre**, Raunel Ticoco Valencia, Mario A Caro, Enrique Galindo, Leobardo Serrano Carréon. Instituto de Biotecnología, UNAM

BT-31

Immobilization of *Burkholderia* sp. on different supports for biodegradation of methyl parathion. **Maikel Gilberto Fernández-López**, Elida Carolina Popoca-Ursino, Ma. Laura Ortiz-Hernández. Environmental Research Laboratory, Biotechnology Research Center, UAEM

BT-32

Isolation and identification of entomopathogenic bacteria from *Diatraea magnifactella* in sugarcane soils from Morelos state. **Christian Jesús Flores Bahena**, Verónica Obregón, Laura Lina, Francisco Medrano, Elba Villegas. Centro de Investigación en Biotecnología, UAEM

BT-33

Analysis of the endophytic bacterial communities associated with two wild sympatric species of Cacti. **Citali Fonseca-García**, Etzel Garrido and Laila P Partida-Martínez. Departamento de Ingeniería Genética. CINVESTAV – IPN Unidad Irapuato

BT-34

Determination of carbon flow to the common aromatic pathway in *Escherichia coli* mutants lacking glucose phosphoenol pyruvate: phosphotransferase system (PTS) and non-PTS transporters. **Juan Carlos Fragoso Jiménez**, Luz María Martínez Mejía, Georgina Hernández Chávez, Noemí Flores Mejía, Alfredo Martínez Jiménez, Guillermo Gosset Lagarda. Departamento de Biocatálisis, Instituto de Biotecnología, UNAM

BT-35

Same virus, new targets: Parvovirus B19 meets hepatocytes. **Brenda Franco-Marcelo**, Ismael Bustos-Jaimes. Departamento de Bioquímica, Facultad de Medicina, UNAM

BT-36

Un-targeted metabolic profiling for the discovery of highly heritable metabolites linked to coffee (*C. canephora*) cup quality. **Roberto Gamboa Becerra**, Robert Winkler. CINVESTAV- IPN, Unidad Irapuato

BT-37

Study of RsmA over-expression effects on the expression of the *algD* gene in *A. vinelandii*. **María Eugenia Valentina García Aguilar**, Miguel Castañeda Lucio, Liliana López Pliego. Centro de Investigaciones Microbiológicas, Instituto de Ciencias, BUAP

BT-38

Redesign of the Shikimate Dehydrogenase Enzyme from *E. coli*. Inversion on the cofactor specificity. **José Fernando García Guevara**, Lorenzo Segovia Forcella. Instituto de Biotecnología, UNAM

BT-39

Kinetic and structural characterization of mutants of the interactions surface of the C-terminal tail of nitrilase from *R. pyridinovorans*. **Agustín Gómez Aguilar**, Georgina Garza-Ramos Martínez. Departamento de Bioquímica, Facultad de Medicina, UNAM

BT-40

Lipid bilayer disruption originated by a parasporal protein of *Bacillus thuringiensis subspecies neoleonensis*, GM18. **Erika González Álvarez**, Abelardo Chávez Montes, Hugo Luna Olvera, Luis Galan Wong, Azucena González-Horta. Laboratorio de Ciencias Genómicas, UANL

CELL DIFFERENTIATION**CD-1**

Neural induction of bone marrow mesenchymal stromal cells and olfactory neuro-epithelial cells. **Alejandro Aguilera-Castrejón**, Herminia Pasantes, Juan José Montesinos Montesinos, Gloria Benitez-King, Marta E.

Castro-Manreza and Gerardo Ramos-Mandujano. División de Neurociencias, Instituto de Fisiología Celular, UNAM

CD-2

Functional analysis of the *WIP* gene as a developmental regulator in the liverwort *Marchantia polymorpha*. **Mariana Andrade Medina**, Daniel Ramos Patlan, Eduardo Flores, John Bowman', and Nayelli Marsch Martínez. Biotecnología y Bioquímica, CINVESTAV – IPN Irapuato

CD-3

Effect of iodine deficiency on the migration and invasion of 3AsubE human trophoblasts cells. Zedy Evelyn Olivo Vidal, Erika Alarcón Cruz, José Oscar García Carmona, Juan Carlos Conde Alarcón, **Omar Arroyo-Helguera**. Instituto de Salud Pública, Universidad Veracruzana

CD-4

Effect of L-carnitine and a phosphorus analog of L-carnitine on *in vitro* insulin-like response. **Anaguiven Avalos Soriano**, Francisco Josué López Martínez, Ricardo de la Cruz Cordero, Jorge Luis Rosado Loría, Teresa García Gasca. Facultad de Ciencias Naturales. Universidad Autónoma de Querétaro

CD-5

Characterization of cyclins B1;2 and B2;1 during maize germination. **María Fernanda Ayub-Miranda**, Brendy B García-Ayala, Jorge M Vázquez-Ramos and Aurora Lara-Núñez. Facultad de Química. UNAM

CD-6

IL-6 role during proliferation induction in MCF-7 cells treated with elderly serum. **Bertha Alicia Barajas-Gómez**, Viridiana Yazmin González Puertos, Pedro Posadas Rodríguez, Oscar Rosas-Carrasco, Teresa Juárez, Jorge Antonio García-Álvarez, Mina Konigsberg-Fainstein, Pablo Damián-Matzumura, Armando Luna-López. Postgrado in Experimental Biology, UAMI

CD-7

Expression of the Dystrophin-Associated Protein Complex in Human Adipose Tissue. **Byanka S Espinoza-López**, Angélica Montoya-Contreras, José Romo-Yáñez, Cecilia Montañez, Jaime Parés, José Refugio Medina-León, Luis A Salazar-Olivo. Div. Biología Molecular, IPICYT

CD-8

Papillomavirus oncogenes E6/E7 and estradiol promote mouse ear regeneration by different mechanisms. **Celina García**, David Hernández-García, Concepción Valencia, Mariana Werner, José Raúl Pérez and Luis Covarrubias Instituto de Biotecnología, UNAM

CD-9

ERK1/2 are involved in acrosome reaction through its activation by FAK. **Enrique O Hernández González**, Mónica L Salgado Lucio y Ana L Roa Espitia. Biología Celular, CINVESTAV – IPN Zacatenco

CD-10

Glial cell-derived Neurotrophic Factor favors the differentiation of mouse embryonic stem cells to motor neurons. **Daniel E Cortés P**, Iván Velasco Velázquez. Instituto de Fisiología Celular, UNAM

CD-11

Glucose and sucrose have a differential impact on embryo axes during maize germination. **Aurora Lara-Núñez**, Brendy B García-Ayala and Jorge M Vázquez Ramos. Facultad de Química. UNAM

CD-12

Ustilago maydis: A comparative microarray analyses at different stages of basidiocarps development. **Claudia Geraldine León-Ramírez**, José Luis Cabrera-Ponce, Domingo Martínez-Soto, José Alejandro Sánchez-Arreguín and José Ruiz Herrera. CINVESTAV - IPN. Departamento de Ingeniería Genética. Unidad Irapuato

CD-13

The *Podospira anserina* endoplasmic reticulum-shaping proteins and their role in sexual development. **Antonio de Jesús López-Fuentes**, Karime Naid Nachón-Garduño, Fernando Suaste-Olmos, Leonardo Peraza-Reyes. Instituto de Fisiología Celular, UNAM

CD-14

Regulation of seed structure and root development by the glutamate-carboxipeptidase *altered meristem program 1(AMP1)*. **Marina López-García**, J Raya-González, JS López-Bucio, AA Guevara-García and J López-Bucio. IIQB, Universidad Michoacana de San Nicolás de Hidalgo

CD-15

Molecular characterization of auxin transport inhibitors and their role in root morphogenesis. **Viridiana Magaña-Dueñas**, Ramón Pelagio-Flores and José López-Bucio. IIQB, Universidad Michoacana de San Nicolás de Hidalgo

CD-16

Regulation of root hair development in *Arabidopsis thaliana* by *Pseudomonas aeruginosa* and related quorum-sensing signals. **César Nahúm Maldonado Cortés**, Lourdes Iveth Macías Rodríguez and Jose López Bucio. IIQB, Universidad Michoacana de San Nicolás de Hidalgo

CD-17

TRPV4 channel is necessary for appropriated establishment of the tight junctions in corneal epithelium and regulates its barrier function in combination with EGF. **Jacqueline Martínez Rendón**, Erika Sánchez Guzmán, Angélica Rueda, Federico Castro- MuñozLedo and Refugio García-Villegas. CINVESTAV – IPN Zacatenco

CD-18

UTP induces migration and EMT in ovarian cancer cells. **Martínez-Ramírez AS**, Vázquez-Cuevas FG, Garay E, Arellano RO. Neurobiología Celular y Molecular, Instituto de Neurobiología, UNAM

CD-19

Dystroglycan depletion inhibits the functions of differentiated HL-60 cells. **Ivette Astrid Martínez-Vieyra**, Alma Delia Martínez-Zárate, Lea Alonso-Rangel, Bulmaro Cisneros, Steve J. Winder, Doris Cerecedo. Escuela Nacional de Medicina y Homeopatía, IPN

CD-20

Notch-1 and Notch-2 show differential activity on cell proliferation and differentiation of rabbit corneal epithelial cells. **José Carlos Alfonso Mata Lozano**, Erika Sánchez Guzmán and Federico Castro Muñozledo. Biología Celular, CINVESTAV – IPN Zacatenco

CD-21

Unusual nuclear localization of TRPV4 ionic channel in renal epithelial Cells (MDCK). José Arturo Matamoros-Volante, Jacqueline Martínez-Rendón and María del Refugio García-Villegas. Fisiología, Biofísica y Neurociencias, CINVESTAV-IPN. Zacatenco

CD-22

Assessing the nitric oxide production in the basal land plants: the moss *Physcomitrella patens* as model system. **Rigoberto Medina-Andrés**, Alejandro Solano-Peralta, Juan Pablo Saucedo-Vázquez, Selene Napsucialy-Mendivil, Jaime Arturo Pimentel Cabrera, Martha Elena Sosa-Torres, Joseph G. Dubrovsky and Verónica Lira-Ruan. Laboratorio de Fisiología y Desarrollo Vegetal, Facultad de Ciencias, UAEM

CD-23

Analysis of the Biological activity of the Paired Domain-lacking isoform of the transcription factor PAX6 (PAX6 Δ PD) in mammalian corneal epithelium differentiation. **Rosa Guadalupe Meza Aguilar**, Diana Reséndez-Pérez, Refugio García Villegas, Erika Sánchez Guzmán and Federico Castro Muñozledo. Departamento de Biología Celular, CINVESTAV - IPN

CD-24

$\alpha 6$ integrin as a marker of rabbit corneal epithelial cells with migratory ability: Study in RCE1(5T5) cell line. **Diana Guadalupe Meza-Aguilar**, Erika Sánchez-Guzmán, Federico Castro-Muñozledo. Departamento de Biología Celular, CINVESTAV-IPN

CD-25

The structure and function of *Ustilago maydis* proteinase A. **Cinthia Valentina Soberanes-Gutiérrez**, José Ruiz-Herrera and Lourdes Villa-Tanaca. Genética Microbiana. Microbiología ENCB-IPN.

CD-26

Cellular localization of the RE-1 Silencing Transcription factor in Lung Cancer cell lines. **Carlos Ortuño Pineda**, Jesús Valdés Flores, Catalina Flores Maldonado, Adán Arizmendi Izazaga, Ricardo Martínez Baltazar, Napoleón Navarro Tito, Alan G. Yáñez Olvera, Oscar del Moral Hernández, Miguel Ángel Mendoza Catalán. Unidad Académica de Ciencias Químico Biológicas. Universidad Autónoma de Guerrero

CD-27

Effect of PPAR agonist compounds on adipocyte and myocyte differentiation, and changes in energy metabolism of mesenchymal stem cells from pigs' bone marrow. **Rosa Martha Pérez-Serrano**, María Laura González-Dávalos, Armando Shimada Miyasaka, Anaid Antaramian Salas, Alfredo Varela Echavarría, María Ofelia Mora Izaguirre. RuMeN, Facultad de Estudios Superiores Cuautitlán, UNAM

CD-28

Sperm survival mediated by integrins. **Ana Lilia Roa-Espitia**, Monica L Salgado Lucio and Enrique Othón Hernández-González. Departamento de Biología Celular. CINVESTAV-IPN

GENETIC**G-1**

Transcription-associated adaptive mutagenesis in DNA-repair deficient *Bacillus subtilis* cells. **Verónica Ambríz Aviña** and Mario Pedraza Reyes. Biología, Universidad de Guanajuato

G-2

Analysis of Type I-like and Type II-like telomeres of telomerase-negative survivors of *Ustilago maydis* by PCR amplification and Bal31 digestion kinetics. **Estela Anastacio Marcelino**, Reynaldo Galicia Sarmiento, Candelario Vázquez Cruz y Ma. Patricia Sánchez Alonso. Instituto de Ciencias, BUAP

G-3

Expression and subcellular localization of Dp71 isoforms in PC12 cells: colocalization with β -dystroglycan and α -synaptrophin. **Jorge Aragón**, Alejandro Martínez-Herrera, José Romo-Yáñez, Víctor Ceja, Coztli Ocelotl Azotla Vilchis, Lourdes Montserrat Siqueiros Márquez, Alma Herrera-Salazar and Cecilia Montañez. Genética y Biología Molecular, CINVESTAV – IPN Zacatenco

G-4

Detection of DNA of preys in the diet of a generalist predator: threshold in the number of detectable preys and time consumption. **Lourdes Bao Fundora**, Carla Sánchez-Hernández, Ricardo Ramírez-Romero, José Sánchez Martínez and Nicolas Desneux. CUCBA. Universidad de Guadalajara

G-5

Analysis of expression of the genes ζ -carotene desaturase (ZDS) and carotene isomerase (CRTISO) in different plant tissues of *Bixa orellana* L. by RT-PCR Real-time technique. **Vincent Cerbantez-Bueno**, Margarita Aguilar-Espinosa, Rivera-Madrid Renata. CICY

G-6

Role of ribosomal protein S1 in the translation of adenine- or uracil-rich mRNAs. **Juan Carlos Cifuentes Goches**, Manuel Alberto Castillo Méndez, María del Rosario Salinas Tobón, Gabriel Guarneros Peña, Javier Hernández Sánchez. Genética y Biología Molecular. CINVESTAV-IPN Zacatenco

G-7

Expression of the green fluorescent protein in members of the *Sporothrix schenckii* complex. **Diana Marcela Clavijo-Giraldo**, José Ascensión Martínez-Álvarez, Nancy Edith Lozoya-Pérez, Sergio Casas-Flores, and Héctor Manuel Mora-Montes. Departamento de Biología, Universidad de Guanajuato.

G-8

RFLP-PCR's standardization to identify *CYP2C9*'s allelic variants (2, 3 and *SNP4*) in the Mexican population. **Patricia Cuautle-Rodríguez**, Nidia Samara Rodríguez-Rivera, Fernando Castillo-Nájera, Oscar Eduardo Campos-Ramos, Isaac González Romero, Juan Arcadio Molina-Guarneros. Faculty of Medicine, UNAM

G-9

Genome-wide copy number analysis in Müllerian aplasia. **Fernando Fernández**, Eva Martínez-Peñafiel, Carlos Venegas-Vega, Saraí Valerio, Adriana del Castillo, Alicia Cervantes, Jaime Berumen, Susana Kofman. Unidad de Genética, Hospital General de México

G-10

Genome-wide identification of the genes mediating antagonistic pleiotropy of aging in the budding yeast. **Erika Garay**, Abraham Avelar & Alexander de Luna. LANGEBIO. CINVESTAV – IPN

G-11

Characterization of dystrophin mutant Dp40c-L170P expression in PC12 cells. **César Pastor García Cruz**, Jorge Aragón Medrano, Alejandro Martínez-Herrera, Víctor Ceja Orozco, Ma. Luisa Bazán Tejeda, Rosa Ma. Bermúdez Cruz y Cecilia Montañez Ojeda. Genética y Biología Molecular, CINVESTAV – IPN Zacatenco

G-12

Frequency of polymorphisms of five genes involved in athletic performance in an Mexican population. **Froylan Arturo García-Martínez**, Luis Ángel Montes-Almanza, Luz Berenice López-Hernández, Guillermina Ávila-Ramírez, Cecilia de los Ángeles Nieto-Gómez, José Gilberto Franco-Sánchez, Andrea Pegueros-Pérez, Benjamín Gómez-Díaz. UNAM

G-13

Comparison of mutation profiles in the Duchenne Muscular Dystrophy gene among populations: implications for exon skipping and stop codon read-through therapies. **Benjamín Gómez-Díaz**, Alexandra Berenice Luna-Angulo, Carolina Zúñiga-Guzmán, Mónica Anaya-Segura, Rosa Elena Escobar-Cedillo, Héctor Rangel-Villalobos, Francisco Javier Estrada-Mena, Ramón Mauricio Coral-Vázquez and Luz Berenice López-Hernández. Instituto Nacional de Rehabilitación.

G-14

Functional divergence of duplicate genes coding DEAD RNA helicases in *Bacillus subtilis*. **José Antonio González Gutiérrez**, Itzel Aidé Vargas-Pérez, Gabriela Olmedo Álvarez. CINVESTAV – IPN Irapuato

G-15

Describing the epistatic interactions among genes that extend yeast lifespan. **Jorge González de la Cruz**, Erika Garay & Alexander de Luna. LANGEBIO. CINVESTAV – IPN Irapuato

G-16

Wnt signaling pathway alterations induced by *Trichinella spiralis* muscle larvae excretory-secretory products in primary myoblast cultures. **Lizbeth Hernández Ancheyta**, María del Rosario Salinas Tobón, Javier Hernández Sánchez. Genética y Biología Molecular. CINVESTAV – IPN

G-17

Functional characterization of *Candida tropicalis* *MNN4* and *OCH1*. **Hernández-Chávez Marco J**, Mora-Montes Héctor M. Departamento de Biología, Universidad de Guanajuato

G-18

Resveratrol increases expression of the sarco/endoplasmic reticulum Ca²⁺-ATPase in mice hearts. **María Dolores Hernández-Huerta**, Abigail Guzmán-Bárceñas, Octavio Villanueva-Sánchez, Gabriela Rodríguez, Ángel Alfonso Zarain-Herzberg. Facultad de Medicina, UNAM

G-19

Extra chromosomal complementation of *trt1*-disrupted mutant of *Ustilago maydis*. **Guillermo M Horta Valerdi**, Estela Anastacio Marcelino, Candelario Vázquez Cruz y Patricia Sánchez Alonso. Instituto de Ciencias, BUAP

G-20

Increased expression of Hedgehog (Hh) molecules and EMT-related Hh pathway downstream target genes in transgenic mice K14E7. **Eloísa Ibarra Sierra**, Enoc M. Cortés Malagón, Victor H Garzón Barrientos, Rodolfo Ocadiz Delgado, José A Munguía Moreno, José Bonilla Delgado, José Díaz Chávez, Alejandro García Carrancá, Patricio Gariglio. Genetics and Molecular Biology, CINVESTAV – IPN Zacatenco

G-21

Nuclear export of β -Dystroglycan. **Guadalupe Elizabeth Jiménez Gutiérrez**, Griselda Vélez Aguilera, Bulmaro Cisneros Vega. CINVESTAV – IPN Zacatenco

G-22

Getting a mutant gene in *Gallibacterium anatis* 12656-12qseC. **Ana Jaqueline López Ochoa**, Patricia Sánchez Alonso, Erasmo Negrete Abascal, Candelario Vázquez Cruz. Centro de Investigaciones en Ciencias Microbiológicas. ICUAP, BUAP

G-23

Characterization of cis-elements that negatively regulate transcription of *EPA* genes through silencing proteins of *Candida glabrata*. **Eunice López-Fuentes and Irene Castaño**. IPICYT

GENETIC REGULATION & EPIGENETIC**GR-1**

Insights into the evolution and domain structure of Ataxin-2 proteina cross eukaryotes. **Domingo Jiménez López**, Laura Aguilar-Henonin and Plinio Guzmán. CINVESTAV Unidad Irapuato

GR-2

Changes in internalization and regulators of virulence gene expression after *S. aureus* pre-treatment with TNF α and IL-10. **Daniela Angel-Andrés**, Octavio Silva-García, Víctor Manuel Baizabal-Aguirre, Javier Oviedo-Boyso, Alejandro Bravo-Patiño, Marcos Cajero-Juárez, Martha Patricia Chávez-Moctezuma and Juan José Valdez-Alarcón. FMVZ, Universidad Michoacana de San Nicolás de Hidalgo

GR-3

Role of PARP/PARG [(Poly-ADP-ribosyl) polymerase/glycohydrolase] in the pathogenic fungus *Fusarium oxysporum* sp. *lycopersici*. **Carlos A. Araiza-Cervantes**, Nancy E. Lozoya-Pérez, María Isabel González Roncero, Guadalupe Martínez Cadena, Georgina E. Reyna López. Depto. de Biología. División de Ciencias Naturales y Exactas. Universidad de Guanajuato

GR-4

Chromatin Immunoprecipitation Analysis by RT-PCR in the yeast *Saccharomyces cerevisiae*. **Cristina Aranda**, Alan Anuart González Rangel, Lourdes Valenzuela and Alicia González. Departamento de Bioquímica y Biología Estructural, Instituto de Fisiología Celular, UNAM

GR-5

Spatio-temporal analysis of the *PvKNOLLE* promoter activity in *Phaseolus vulgaris* transgenic roots inoculated with *Rhizobium tropici*. **Emmanuel Ayala Guzmán**, Elizabeth Monroy Morales, Carmen Quinto and Rosana Sánchez-López. Departamento de Biología Molecular de Plantas, Instituto de Biotecnología, UNAM

GR-6

Comparison of the effect of HPV 18 and 11 (high and low risk types) E6 oncoproteins on the proliferation and migration of C33A cells. **Oswaldo Bautista-Isidro**, Verónica García-Castillo, Eduardo López-Urrutia and Carlos Pérez-Plasencia. Unidad de Biomedicina. FES Iztacala-UNAM

GR-7

The role of the CDK8 module of Mediator in vegetative development of *Arabidopsis thaliana*. **Manuel Buendía-Monreal** and Stewart Gillmor. LANGEBIO – CINVESTAV, IPN Irapuato

GR-8

Construction of the recombinant proteins for the NMD putative factors Upf1, Upf2 and Upf3 of *Ustilago maydis*. **Xadeni Burgos Gamez**, Nancy Martínez Montiel, Rebeca D Martínez Contreras. Instituto de Ciencias. BUAP

GR-9

Interaction of NFAT, AP-1, NF- κ B, Sp1 and STAT3 protein and its involvement in the expression of IL-10 in U937 monocytes stimulated with LPS/PGE2. **Jorge A Calzada Martínez**, Sandra R. Reyes Carmona,

Nora H Rosas Murrieta, Irma P Herrera Camacho, Julio R Reyes Leyva, Lourdes Millán Pérez Peña. Instituto de Ciencias, BUAP

GR-10

Methylation analysis of genes for the T-type voltage-dependent calcium channels in cervical cancer derived cell lines. **Katherine Lilibeth Campaña Valencia**, Pedro Chávez Olmos, Francisco Javier Camacho Arroyo y José Efraín Garrido Guerrero. Genética y Biología Molecular. CINVESTAV - IPN

GR-11

Transcriptional regulation of *GDH3* in *Saccharomyces cerevisiae*. **Brisa Aranzazú Campos-Oliver**, Maritrini Colón-González, José Carlos Campero-Basaldúa, James González-Flores, Cristina Aranda-Fraustro and Alicia González-Manjarrez. Instituto de Fisiología Celular. UNAM

GR-12

Phenotype analysis of *Phaseolus vulgaris* transgenic roots expressing *PvCLC2-RNAi* OR *PvCLC3-RNAi*. **Alfredo Capistrán López**, Elizabeth Monroy Morales, Carmen Quinto and Rosana Sánchez-López. Biología Molecular de Plantas, Instituto de Biotecnología, UNAM

GR-13

Unraveling the function of *Phaseolus vulgaris RbohD* during nodulation. **Gabriela Carmona Pulido**, Manoj Kumar Arthikala, Noreide Nava, Jesús Montiel and Carmen Quinto. Biología Molecular de Plantas, Instituto de Biotecnología, UNAM

GR-14

Analysis of the expression patterns of the Mitogen Activated Protein Kinase Kinases (MAPKKs) encoded on genome the *Arabidopsis thaliana*. **Yessica Casales-Tlatilpa**, Jesús Salvador López-Bucio, Maricela Ramos-Vega, Patricia Leónand Ángel Arturo Guevara-García. Facultad de Biología, UAEM

GR-15

Analysis of the interaction between the yKu, Abf1 and Rap1 proteins of *Candida glabrata* and the cis-acting regulatory elements in the E-R telomere. **Leonardo Castanedo-Ibarra**, Alejandro De Las Peñas and Irene Castaño. Laboratorio de Microbiología Molecular, IPICYT

GR-16

Site specific DNA methylation analysis of the RXRA promoter region from umbilical cord blood and its relationship to maternal nutritional status during pregnancy. **Diana Chávez Lizárraga**, Felipe Vadillo Ortega, Carmen Canchola Sotelo, Jorge Beltran Montoya Erika Chavira Suárez. Escuela Superior de Medicina, IPN

GR-17

Methylation-sensitive high resolution melting analyses to site specific LEPR gene promoter methylation from umbilical cord related with the maternal BMI and weight gain during pregnancy. **Erika Chavira Suárez**, Jesús Jorge Beltrán Montoya, Carmen Canchola Sotelo, Felipe Vadillo-Ortega. Facultad de Medicina, UNAM

GR-18

mir-26: A Putative Epigenetic Regulator in Inflammation-Associated Colorectal Cancer Development. **Coronel-Hernández Jossimar**, García-Castillo Verónica, López-Urrutia Eduardo and Pérez-Plasencia Carlos. Unidad de Biomedicina. FES Iztacala-UNAM

GR-19

Silencing the *PvKEULEGENES* in *Phaseolus vulgaris* transgenic roots: effect on the nodulation. **Jonathan Gilberto Cuéllar Vega**, Marco Adán Juárez Verdages, Raúl Dávila Delgado, Elizabeth Monroy Morales, Carmen Quinto y Rosana Sánchez-López. Instituto de Biotecnología, UNAM

GR-20

Analysis of genes involved in polar transport, signaling and metabolism of auxin during primary root development of *Pachycereus pringlei* (Cactaceae). **Andrés Cuevas-Moreira**, Marta Matvienko, Joseph G Dubrovsky and Svetlana Shishkova. Instituto de Biotecnología, UNAM

GR-21

Genetic and transcriptional analysis of Zygotic Genome Activation in early embryogenesis of *Arabidopsis thaliana*. **Gerardo Del Toro**, Marcelina García-Aguilar and Stewart Gillmor. LANGEBIO-CINVESTAV.

GR-22

Ca²⁺-dependent pathways control caldesmon-2 expression in cardiomyocytes. **Rafael Estrada-Avilés**, Gabriela Rodríguez, José Manuel Medina-Cervantes, Ángel Zarain-Herzberg. Departamento de Bioquímica, Facultad de Medicina, UNAM

TOXICOLOGY**T-1**

Modulation of nerve growth factor expression (NGF) by ionizing radiation in different mouse tissues. **Albarrán-Ponce LÁ**, Fajardo-Miranda RM, Gamboa de Buen MI, Valdovinos-Flores C and Gonsebatt ME. Instituto de Investigaciones Biomédicas, UNAM

T-2

Effect of airborne fine particle exposure on 5HT_{1A}- and D₂-receptor density and signaling in rat striatum, prefrontal cerebral cortex and olfactory bulb. **María de los Angeles Andrade Oliva**, Octavio Gamaliel Aztatzí Aguilar, José Antonio Arias-Montaño, Andrea De Vizcaya-Ruiz. Toxicología y Fisiología, Biofísica y Neurociencias, CINVESTAV – IPN. Zacatenco

T-3

Fluoride induced tubular injury and apoptosis in male Wistar rat subchronically exposed through drinking water and challenged with gentamicin. **Olivier C Barbier**, Mariana C Cárdenas González, Tania L Jacobo Estrada, Luz M Del Razo. Toxicología, CINVESTAV – IPN. Zacatenco

T-4

Genotoxic effect of temephos in human lymphocytes. **Alma Betsaida Benitez Trinidad**, Guillermina Vázquez-Estrada, José Francisco Herrera Moreno, Monserrat Sordo Cedeño, Patricia Ostrosky Wegman, Irma Martha Medina Díaz, María de Lourdes Robledo Marengo, Briscia Socorro Barrón Vivanco, Yael Yvette Bernal Hernández, Romero Bañuelos Carlos Alberto, Aurora Elizabeth Rojas García. Universidad Autónoma de Nayarit

T-5

Chronic low level arsenic exposure induces progressive aberrant DNA methylation that correlates with cell transformation in HaCaT cell line. **Federico Centeno Cruz**, Francisco Barajas Olmos, Elizabeth Ortiz Sánchez, José Luis Cruz Colín, Ivan Imaz Rosshandler, Claudia Rangel Escareño, Lorena Orozco. Instituto Nacional de Medicina Genómica

T-6

Proteomic characterization of venom from male and female scorpions of the species *Centruroides limpiduslimpidus*. **Jimena Isaias Cid Uribe**, Georgina Gurrola Briones, Fredy Coronas Valderrama and Lourival Domingos Possani. Instituto de Biotecnología-UNAM

T-7

Cloning and expression of a serinoprotease from the venom of *Bothrops ammodytoides*. **Herlinda Clement**, Vianey Flores, Alejandro Alagón, Adolfo de Roodt and Gerardo Corzo. Medicina Molecular y Bioprocesos, Instituto de Biotecnología, UNAM

T-8

Isolation and characterization of a phospholipasein *Palythoacaribaeorum*. **Miguel Cuevas Cruz** and Roberto Arreguin-Espinosa. Graduate in Marine Science and Limnology, UNAM

T-9

Coadministration of High Doses of Rosuvastatin and a Cholesterol-Rich Diet Produces Premature Death in CD-1 Male Mice. **Juan Cuauhtémoc Díaz-Zagoya**, Isela Esther Juárez-Rojop, Andrés Eliud Castell-Rodríguez, Jorge Luis Blé-Castillo, Rodrigo Miranda-Zamora. Facultad de Medicina, UNAM

T-10

Evaluation of lipid profile and association to cardiac risk factors in rural communities of state of Chihuahua exposed to fluoride in drinking water. **Iván Alejandro Domínguez Guerrero**, Luz María Del Razo, Olivier

Barbier, Mónica I Jiménez Cordova, Blanca Sánchez-Ramírez, María de Lourdes Ballinas-Casarrubias, Rocío Infante-Ramírez, Efraín Villareal, María del Carmen González-Horta. Facultad de Ciencias Químicas. Universidad Autónoma de Chihuahua

T-11

Genotoxic Safety of Jacareubin in Bone Marrow Cells of Female Balb/c Mice. **Elizabet Estrada Muñiz**, Lucero G Mireles López, Ricardo Reyes-Chilpa, Libia Vega. CINVESTAV-IPN

T-12

Expression and folding of cysteine rich neurotoxins from the venoms of spiders and coral snakes. **Vianey Flores-Lara**, Herlinda Clement, Alejandro Alagon, Gerardo Corzo. Instituto de Biotecnología, UNAM

T-13

Phage-displayed variants of the Csx2 toxin from *Centruroides suffusus suffusus*. **García-Montelongo M**, Restano-Cassulini R, Becerril B, Ortiz E. Instituto de Biotecnología, UNAM

T-14

Participation of mTOR in the transport of aminoacids involved in glutathione (GSH) synthesis in mouse striatum. **Carla Garza Lombó**, Lourdes Massieu Trigo, Mauricio Díaz Muñoz, Pavel Petrosyan, María E Gonsebatt. Medicina Genómica y Toxicología Ambiental, Instituto de Investigaciones Biomédicas, UNAM

T-15

Genotoxicity of Dialkylphosphates in Lymphocytes and Human Hepatic Cells. **José Arturo Godínez Izquierdo**, Elizabeth Estrada Muñoz, Libia Vega Loyo. Toxicología. CINVESTAV-IPN

T-16

Effects of temephos on DNA damage in human liver carcinoma (HepG2) cells. **José Francisco Herrera Moreno**, Francisco Alberto Verdín-Betancourt, Alma Betsaida Benitez Trinidad, Irma Martha Medina Díaz, Monserrat Sordo Cedeño, Patricia Ostrosky Wegman, María de Lourdes Robledo Marengo, Yael Yvette Bernal Hernández, Briscia Socorro Barrón Vivanco, Aurora Elizabeth Rojas García. Universidad Autónoma de Nayarit

T-17

Evaluation of glomerular filtration rate, cystatin-C, β -2-microglobulin, KIM-1 and clusterin on adult population environmentally exposed to fluoride. **Mónica I Jiménez Córdoba**, Mariana C Cárdenas González, Carmen González Horta, Guadalupe Aguilar Madrid, Ángel Barrera Hernández, Efraín E Villarreal Vega, Iván A Domínguez Guerrero, Rocío Infante Ramírez, Olivier C Barbier, Luz M Del Razo. Departamento de Toxicología, CINVESTAV-IPN

SIGNAL TRANSDUCTION**ST-1**

Signal integration by P-Rex1, a multidomain RacGEF, linked to its interaction with cAMP-dependent Protein Kinase. **Sendi Rafael Adame-García**, Lydia Chávez-Vargas, R Daniel Cervantes-Villagrana, Guadalupe Reyes-Cruz and José Vázquez-Prado. CINVESTAV IPN Zacatenco

ST-2

Subchronic treatment with ferric nitrilotriacetate (FeNTA) induces AP-1 activation and cyclin D1 overexpression: possible mechanisms of renal carcinogenicity. **Francisco Antonio Aguilar Alonso**, José Dolores Solano Becerra, Chabetty Vargas Olvera, Claudia Martinez Martinez, Telma Olivia Pariente Pérez, María Elena Ibarra Rubio. Facultad de Química, UNAM

ST-3

Study of the role played by the protein p32 (gC1qR) in maintaining the malignant phenotype of colon cancer. **Sara Ruth Albarrán-Gutiérrez**, Cristina Castañeda-Patlán y Martha Robles-Flores. UNAM

ST-4

The phosphoinositide-dependent protein kinase 1 inhibitor, UCN-01, induces fragmentation. Possible role of metallo proteinases. **Rocío Alcántara-Hernández**, Aurelio Hernández-Méndez and J Adolfo García-Sáinz. Instituto de Fisiología Celular. UNAM

ST-5

Function/structure of the human alpha 1d adrenoceptor. **Marco Antonio Alfonzo Méndez**, María Teresa Romero Ávila, Jean Alberto Castillo Badillo and J Adolfo García-Sáinz. Instituto de Fisiología Celular, UNAM

ST-6

Regulation of the regulatory subunit of Protein Kinase A subcellular localization in *Saccharomyces cerevisiae*. **Francisco Manuel Amezola-Chávez**, Mariana Hernández-Elvira, Francisco Torres-Quiroz. Instituto de Fisiología Celular, UNAM

ST-7

The effects of Hydrogen Sulfide on Protein Kinase A activation in the yeast *Saccharomyces cerevisiae*. **Juan de Dios Ayala-González**, Francisco Torres-Quiroz. Bioquímica y Biología Estructural. Instituto de Fisiología Celular, UNAM

ST-8

Akt degradation by direct interaction with Bag5. **Ismael Bracho-Valdés**, Paola Moreno-Alvarez, Jorge Carretero-Ortega, Estanislao Escobar Islas, Adán Olguín-Olguín, J. Alberto Olivares Reyes, J. Silvio Gutkind, Guadalupe Reyes-Cruz, José Vázquez-Prado. Departments of Pharmacology, Cell Biology and Biochemistry, CINVESTAV-IPN

ST-9

Molecular features and expression analysis of RACK1 from the symbiotic dinoflagellate *Symbiodinium microadriaticum*. **Marco A Villanueva Méndez**, Esmeralda Pérez Cervantes, Tania Islas Flores, Montserrat Loredó Guillén and Gabriel Guillén Solís. Instituto de Ciencias del Mar y Limnología, UNAM

ST-10

Effect of KPNA2 down regulation on the nuclear localization of small GTPase Rac1 in HaCaT cells. **Calixto-Gálvez Mercedes**, De la Cruz-López Karen G, García-Hernández Alejandra P, Navarro-Tito Napoleón, Castañeda-Saucedo Eduardo. Ciencias Químico Biológicas, Universidad Autónoma de Guerrero

ST-11

The global regulator CsrA is required for proper BarA activation and *UvrY* translation. **Martha I Camacho**, Adrián F Álvarez y Dimitris Georgellis. Instituto de Fisiología Celular. UNAM

ST-12

The sustained activation of AT1R prevents the Akt/PKB desensitization in hepatic C-9 cells. **Jesús Castillo Hernández**, Rafael Rubio, Jesús Alberto Olivares Reyes. CINVESTAV – IPN Zacatenco

ST-13

Biochemical and molecular features of a HSP90-like protein from *Symbiodinium microadriaticum* that undergoes phosphorylation changes in response to light. **Raúl E Castillo Medina** and Marco A Villanueva Méndez. Instituto de Ciencias del Mar y Limnología, UNAM

ST-14

Constitutively active RhoGEFs, representing the most abundantly expressed branch of endothelial RhoGEFs, including RGS-RhoGEFs, Intersectins, PLEKHG5 and NGEF, reveal a strong angiogenic signal transduction potential. **Alejandro Castillo-Kauil**, Ricardo Hernández-García, Guadalupe Reyes-Cruz and José Vázquez-Prado. CINVESTAV-IPN Zacatenco

ST-15

Detecting phosphorylations in Efl1 with Mass Spectrometry. **Nina del Carmen Castro Moreno**, Eugenio de la Mora Lugo, Nuria Sánchez Puig. Instituto de Química, UNAM

ST-16

Prostaglandin E₂ differentially alters protein expression in female *Anopheles albimanus* mosquito midguts. **Febe E Cázares-Raga**, Alejandra del Pilar Ochoa Franco, Fernando García- Gil de Muñóz, Mario Henry Rodríguez, Fidel de la Cruz Hernández-Hernández. CINVESTAV-IPN Zacatenco

ST-17

Contribution of bone marrow-derived cells to tumor growth: Potential role of RhoGEFs. Rodolfo **Daniel Cervantes-Villagrana**, Ricardo Hernández-García, Lydia Chávez Vargas, Alejandro Castillo Kauil, Guadalupe Reyes-Cruz and José Vázquez-Prado. CINVESTAV-IPN Zacatenco

ST-18

LPS of *Helicobacter pylori* regulates claudins expression via ERK1/2. **Christian O. Chavarría-Velázquez**, Luis F. Montaña-Estrada, Erika P. Rendón-Huerta. Facultad de Medicina, UNAM

ST-19

Regulating of the activity of NF-κB by action of glycine dare channel Ca⁺² in adipocytes. **Erika Contreras Nuñez**, Gerardo Blancas Flores, Julio Almanza Pérez, Miguel Cruz Lopéz, Rubén Román Ramos, Francisco Javier Alarcón Aguilar. DCBS, UAM-Iztapalapa

ST-20

The effect of multiple carboxylase deficiency in decrease the mitochondrial mass is mediated via STAT3-HIF1a-BNIP3 in brain. **Jose Ahmed Corella Vazquez**, Estefanía Ochoa Ruiz, Rodrigo Díaz Ruiz, Antonio Velázquez Arellano. Instituto de Investigaciones Biomédicas. UNAM

ST-21

Mechanism for the specific targeting of methyltransferases to chemoreceptors in *Pseudomonas aeruginosa* PAO1. **Andrés Corral-Lugo**, Cristina García-Fontana and Tino Krell. Estación Experimental del Zaidín, Consejo Superior de Investigaciones Científicas, Granada, Spain

ST-22

The transcriptional regulator Atf1 has key roles in cellular stress and asexual reproduction in *Trichoderma atroviride*. **Víctor Alejandro Correa Pérez**, Fidel Landeros Jaime, José Antonio Cervantes Chávez, Edgardo Ulises Esquivel Naranjo. Universidad Autónoma de Querétaro

ST-23

Identification of DNA binding proteins to the regulatory region implicated in the *STP1 (SUGAR TRANSPORTER PROTEIN 1)* gene sugar regulation in *Arabidopsis thaliana*. **María-Isabel Cruz-López** and Elizabeth Cordoba. Instituto de Biotecnología, UNAM

ST-24

Role of the redundant proteins Ssk2p and Ssk22p in the endoplasmic reticulum stress response in the yeast *Saccharomyces cerevisiae*. **Uriel Cruz-Martínez**, José Francisco Torres-Quiroz, Laura Kawasaki-Watanabe, Roberto Coria. Instituto de Fisiología Celular, UNAM

ST-25

Regulation of voltage-dependent calcium channels by G proteins in rat β-pancreatic cells. **Lizbeth de la Cruz**, Silvia Valdés-Rives, Isabel Arenas, David García. Facultad de Medicina, UNAM

ST-26

Effects of endotoxin tolerance on the cytokine production and the secretory machinery of mas cells activated through the high affinity IgE receptor (FcεRI). **Zyanya Patricia Espinosa Riquer** and Claudia González Espinosa. Departamento de Farmacobiología, CINVESTAV-IPN

ST-27

The SAPK signaling pathway regulates cellular stress and responses to light in *Trichoderma atroviride*. **Edgardo Ulises Esquivel Naranjo**, Mónica García Esquivel, Víctor Alejandro Correa Pérez, Jorge Luis Parra Arriaga, Fidel Landeros Jaime, José Antonio Cervantes Chávez, Herrera Estrella A. Facultad de Ciencias Naturales. Universidad Autónoma de Querétaro

ST-28

Significant suppression of colitis-related colorectal cancer in a murine model. **Gabriela Figueroa-González**, Verónica García-Castillo, Víctor Montesinos-Fuentes, Nadia Jacobo-Herrera, Lizbeth Palma-

Berré, Eduardo López-Urrutia, Sonia León-Cabrera, Luis Ignacio Terrazas-Valdés and Carlos Pérez-Plasencia. Unidad de Biomedicina. FES Iztacala-UNAM

ST-29

Extracellular ATP Induces Apoptosis through P2X7 Receptor activation in MDA-MB 231 cells. **Flores-Flores Marycruz**, Monjaraz-Eduardo, Avelino Cruz José Everardo. Instituto de Fisiología BUAP

ST-30

Cancer metabolic hallmarks blockade induces death by autophagy in triple negative breast cancer cell line. **Verónica García-Castillo**, Nadia J Jacobo-Herrera, Eduardo López-Urrutia, Gabriela Figueroa-González, Víctor M Lara-Camacho, Mallely C Ávila-García, y Carlos Pérez-Plasencia. Unidad de Biomedicina. FES Iztacala-UNAM

ST-31

ZmPDK1, a new component of the *Zea mays* TOR pathway. **Verónica Garrocho-Villegas**, Maria Julissa Ek-Ramos, Raúl Aguilar, Lourdes Segura, Luis Felipe Jiménez and Estela Sánchez de Jiménez. Facultad de Química, UNAM

ST-32

Endogenous Ribosomal Heterogeneity in Maize Tissues: Possible Biological Relevance. **Ricardo Hernández Hermenegildo**, Cruz Jesus Ginez Ramos and Estela Sánchez de Jiménez. Facultad de Química, UNAM

BASIC BIOCHEMISTRY**B-38**

Evaluation of Plant Lectins Interaction with *Aspergillus parasiticus*. **Edmar de Jesús Díaz García**, Marco Antonio Sánchez Medina, María del Socorro Pina Canseco, Alma Dolores Pérez-Santiago. Instituto Tecnológico de Oaxaca

B-39

Identification of the amino acids responsible for the differences in susceptibility to inactivation by methylmethane thiosulfonate of the triosephosphate isomerases from *Trypanosoma brucei* and *T. cruzi*. **Selma Díaz Mazariegos**, Itzhel García Torres, Nallely Cabrera González and Ruy Perez Montfort. Depto. Bioquímica y Biología Estructural. IFC - UNAM.

B-40

Analysis of glycerol dehydrogenases in *Mucor circinelloides* YR-1. **Areli Durón Castellanos**, Roberto Zazueta-Sandoval. Div. de Ciencias Naturales y Exactas. Universidad de Guanajuato

B-41

Amino acids as modulators of root development in habanero pepper (*Capsicum chinense* Jacq.). Mildred Rubi Carrillo-Pech, Angélica Anahí. Serralta-Interian, Ernesto Palacios-Medel, Ángel Virgilio Domínguez-May, Candy Susana Fano-Silva, **Ileana Echevarría-Machado**. Unidad de Bioquímica y Biología Molecular de Plantas. CICY

B-42

Structural studies of the human triosephosphate isomerase. Artificial deamidation in the amino acid residues 15 and 71 and his effect over structure. **Sergio Enríquez Flores**, Alfredo Torres Larios, Ignacio De La Mora De La Mora, Sara T. Méndez, Adriana Castillo Villanueva, Saúl Gómez Manzo, Gabriel López Velázquez, Jaime Marcial Quino, Angélica Torres Arroyo, Itzhel García Torres, Horacio Reyes Vivas, Jesús Oria Hernández. Laboratorio de Bioquímica Genética, Instituto Nacional de Pediatría

B-43

Changes in affinity and molecular basis of multiple specificity of a periplasmic binding protein for basic amino acids; The LAO-protein. **Andrés Escandón Flores**, Nancy O Pulido Mayoral, Alejandro Fernández-Velasco, and Alejandro Sosa Peinado, Depto. Bioquímica, Facultad de Medicina, UNAM

B-44

Characterization of Dystroglycan on Kasumi 1 cell line. **Marco Antonio Escarcega-Tame**, Ivette Astrid Martínez-Vieyra, Lea Alonso-Rangel, Doris Cerecedo. Escuela Nacional de Medicina y Homeopatía, IPN

B-45

Assembly and distribution of the OXPHOS complexes and supercomplexes reflect energy metabolism in two human glioblastoma cell lines. **Diana Lashidua Fernández Coto**, Juan Fernando Minauro Sanmiguel, Karina Salvador Severo, Álvaro Marín Hernández. Unidad de Investigación Médica en Genética Humana, Hospital de Pediatría, CMN Siglo XXI, IMSS

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Structural and functional characterization of Whiteleg shrimp thioredoxin (*Litopenaeus vannamei*). **Arline Fernández Silva**, Hugo A Gómez Uribe, Carlos Amero Tello. Centro de Investigaciones Químicas, UAEM

B-47

Effect of chronic exposition to extreme low frequency electromagnetic fields on fatty acid contents and lipoperoxidation in different regions of rat's brain. **Alan Emmanuel Flores Poblano**, Jesús Martínez Sámano, Leticia Verdugo Díaz, Oscar Iván Luqueño Bocado, Marco Antonio Juárez Oropeza, Patricia Victoria Torres Durán. Facultad de Medicina, UNAM

B-48

NMR assignment and dynamics of LAO protein. **Leidys French Pacheco**, Renan Vergara, Isabel Velazquez, Alejandro Sosa and Carlos Amero. Centro de Investigaciones Químicas, UAEM

B-49

Study of the Pet309 function by site directed mutagenesis in *Saccharomyces cerevisiae* mitochondria. **Jesús Emmanuel Frías Jiménez**, Yolanda Camacho Villasana, Xochitl Pérez Martínez. Instituto de Fisiología Celular, UNAM

B-50

Identification of a lectin from blue mussel (*Mytilus edulis*) belonging to an unclassified family of lectins. **Efrén García Maldonado** and Alejandra Hernández Santoyo. Depto. de Química de Biomacromoléculas, Instituto de Química, UNAM

B-51

New target of proton pump inhibitors: inactivation of triosephosphate isomerase from *Giardia lamblia* by Omeprazole derivatives. **Itzhel García-Torres**, Ignacio De la Mora De la Mora, Saúl Gómez-Manzo, Jaime Marcial Quino, América Vanoye Carlo, Jesús Oria Hernández, Horacio-Reyes-Vivas, Gabriel Navarrete-Vázquez, Gabriel López-Velázquez, Sergio Enríquez-Flores. Instituto Nacional de Pediatría

B-52

Is the loss of protein interaction in Ribosome Biogenesis the cause of Shwachman-Bodian-Diamond Syndrome? **Abril Gijbers Alejandre**, Nancy Marcial, Takuya Nishigaki y Nuria Sánchez Puig. Department of Chemistry of Biomacromolecules, Institute of Chemistry, UNAM

B-53

Structural and functional characterization of four pathologic variants causing Glucose-6-phosphate dehydrogenase deficiency in humans. **Saúl Gómez Manzo**, Jessica Terrón Hernández, Ignacio De la Mora-De la Mora, Alejandra Abigail González Valdez, Itzhel García-Torres, Jaime Marcial-Quino, América Vanoye-Carlo, Jesús Oria-Hernández, Gabriel López-Velázquez, Sergio Enríquez-Flores. Lab. Bioquímica Genética, Instituto Nacional de Pediatría

B-54

Reduction of nitrate and ammonium assimilation during induced capsaicinoid accumulation in *in vitro* cultured placentas of habanero pepper (*Capsicum chinense* Jacq.). **David J Góngora-Espínola**, Guadalupe G Martín-Morales, Aurora J Trujillo-Bernat, Lizbeth A Castro-Concha and María de Lourdes Miranda-Ham. U. de Bioquímica y Biología Molecular de Plantas, CICY

B-55

Computational Models of Pores Made of Light Chain Variable Domains: Another Cytotoxic Species? **Diego S Granados**, César Millán-Pacheco, Nina Pastor. Unidad Profesional Interdisciplinaria de Ingeniería, IPN Guanajuato

B-56

Tracheal cryopreservation: CASPASE-3 expression in tracheal epithelium and in mixed glands. **Isabel Guadarrama-Sánchez**, Avelina Sotres-Vega, J.Alfredo Santibañez-Salgado, Jaime Villalba-Caloca, José Luis Torre-Jaime, Jazmín Azaarel García-Montes, Miguel Gaxiola-Gaxiola. Lung Transplantation Research Unit. National Institute of Respiratory Diseases

B-57

Is glycerol employed as osmolyte in the symbiotic dinoflagellate *Symbiodinium*?. **Luis Parmenio Suescún Bolívar**, Patricia E Thomé Ortíz. Instituto de Ciencias del Mar y Limnología. UNAM

B-58

Unexpected redox homeostasis in the free-living platyhelminth *Dugesia* sp. **Alberto Guevara Flores**, Álvaro Miguel Herrera Juárez, José de Jesús Martínez González, I Patricia del Arenal Mena, and Juan Luis Rendón. Departamento de Bioquímica, Facultad de Medicina, UNAM

B-59

Intracellular localization of the six *Arabidopsis thaliana* isoforms of soluble inorganic pyrophosphatase. **Francisca Morayna Gutiérrez-Luna**, Lilian G Valencia-Turcotte and Rogelio Rodríguez-Sotres. Depto. de Bioquímica, Facultad de Química, UNAM

B-60

Purificación y caracterización parcial de una enzima tipo quimotripsina de *Prostephanus truncatus* (Horn) (Coleoptera: Bostrichidae). **María del Carmen Hernández Hernández**, Elizabeth Mendiola Olaya, José Luis Castro Guillen, Alejandro Blanco Labra. CINVESTAV – IPN Unidad Irapuato

B-61

Synthesis of omeprazole analogs with potential capacity to inactivate the triosephosphate isomerase of *Giardia lamblia* (GITIM). **Beatriz Hernández Ochoa**, Gabriel-Navarrete Vázquez, Angélica Torres-Arroyo, Adriana Castillo-Villanueva, Sara Méndez, Jesús Oria-Hernández y Horacio Reyes Vivas. Laboratorio de Bioquímica Genética, Instituto Nacional de Pediatría. SS.

B-62

Analysis of the O-GlcNAcylation state of the vitamin D receptor (VDR) in human monocytes cultured under hyperglycemic conditions. **Fernando Hernández-Sánchez**, Manuel Salgado-Cantú, Madeline Balderas- Anaya, Ricardo Vega-Hernández and Martha Torres-Rojas. Instituto Nacional de Enfermedades Respiratorias.

B-63

Comparative study of *Synechococcus* PCC 7335 and CCC9, two different strategies for cyanobacterial nitrogen fixation and the harvesting of light. **Priscila Herrera Salgado**, Lourdes E Leyva Castillo Carlos Gómez Lojero. CINVESTAV, IPN. Unidad Zacatenco

B-64

Effect of Mixed Inoculation on the Yield and Content of Phenols in the Common Bean Seed (*Phaseolus Vulgaris* L.). **Miguel Jacinto Hurtado Contreras**, Lourdes Macías-Rodríguez, Eduardo Valencia-Cantero, José López-Bucio, Josué Altamirano-Hernández. Instituto de Investigaciones Químico-Biológicas, Universidad Michoacana

B-65

Rol of autophagy in altered hydrotropic response (*ahr1*) mutant of *Arabidopsis thaliana*. **Gladys Edith Jiménez Nopala**, Diego Cevallos Porta, Gladys Cassab López, Helena Porta Ducoing. Departamento de Biología Molecular de Plantas, Instituto de Biotecnología, UNAM

B-66

Carbonic anhydrases and their role in mammalian sperm physiology. **Omar José Ramírez**, Paulina Torres Rodríguez, Rafael Baltiérrez Hoyos, Fabrizio Carta, Joachim W Deitmer, Claudiu Supuran, Claudia L Treviño Santa Cruz. Instituto de Biotecnología, UNAM

B-67

Structural studies of Mu-class glutathione S-transferase from shrimp *Litopenaeus vannamei*. **Juárez-Martínez Ariadna B**, Sotelo-Mundo Rogerio, Rudiño-Piñera Enrique. Facultad de Ciencias, UAEM

B-68

Flavonoids acacetin, chrysin and 4',7-dimethyl naringenin as photosynthesis and seedling growth inhibitors. **Beatriz King-Díaz**, José Fausto Rivero-Cruz and Blas Lotina-Hennsen. Facultad de Química, UNAM

B-69

Importance of the GTPase Gpn3 in the nuclear accumulation of RNA polymerase II in breast cells with increasing degrees of malignancy. **Bárbara Lara Chacón**, Mónica R Calera, Roberto Sánchez Olea. Instituto de Física, UASLP

B-70

Effect of methanol extracts of *Lentinula edodes* on the gelatinases A and B (MMP2 and MMP9) and urokinase (PLAU) in breast cancer cells MCF7. **Jacqueline Viridiana Lara Espinosa**, María Guadalupe Martínez Hernández, Carmen Elizabeth Zamora Mancera, Víctor Manuel Esparza Martínez, Luis Arturo Baiza Gutman. Laboratorio de Biología del Desarrollo, UMF. Jardín Botánico. UNAM

B-71

Structure and function characterization of SdrP protein from *Thermus thermophilus*. **Kevin Eder Gamboa Ramírez**, José G. Sampedro, Ruben Paul Gaytan Colin, Samuel Lara González. Laboratorio de Biología Estructural, IPICYT

B-72

A derivative-based steroidal androstane skeleton compound (OM4) inhibits FcεRI-dependent degranulation after IgE/Antigen stimulation in mast cells. **Alfredo Ibarra-Sánchez**, Mariana Garrido González, Alejandro Padilla-González, Cabeza M, Bratoeff E and Claudia González-Espinosa. CINVESTAV – IPN. Zona Sur

B-73

Expression of MUC1 glycoprotein in HEK293 cells for studying the role of MAL and GGA2 proteins on its cellular trafficking. **Antonio Roberto Lara Lemus** and Ana Karina Saldaña Villa. Investigación en Bioquímica, Instituto Nacional de Enfermedades Respiratorias

B-74

Quality Control Test for Sequence-Phenotype Assignments. **Maria Teresa Lara Ortiz**, Pablo Benjamín Leon Rosario, Pablo Luna-Nevarez, Alba Savin Gamez, Ana Martínez-del Campo, Gabriel Del Rio Guerra. Bioquímica y Biología Estructural, Instituto de Fisiología Celular, UNAM

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Functional Divergence of Genes Implicated in the Leucine Biosynthesis in *Sacharomyces cerevisiae* and the Ancestor Type Yeast *Kluyveromyces lactis*. **Mijail Lezama**, Geovani López and Alicia González. Bioquímica y Biología Estructural. Instituto de Fisiología Celular, UNAM

BIOTECHNOLOGY**BT-41**

The nanoparticles of gold destroy the capsule of *Streptococcus pneumoniae*; the principal virulence factor that this pathogen has been developing to evade the immune system. **Edgar Augusto Ortiz Benítez**, Mariana Carrillo Morales, Alejandra Stephany Rodríguez Leviz, Norma Velázquez Guadarrama, Jesús Fandiño Armas y José de Jesús Olivares Trejo. Posgrado en Ciencias Genómicas. Universidad Autónoma de la Ciudad de México

BT-42

Expression and chromatographic purification of full-length and a truncated form of the GTPase Gpn1 in bacteria for structural and functional studies. **Rogelio González González**, José Alberto Guerra Moreno, Gabriela M. Montero Morán, Sonia Griselda Peña Gómez, Jorge Jaime Juárez Lucero, Samuel Lara González, Mónica R Calera y Roberto Sánchez Olea. Instituto de Física, Universidad Autónoma de San Luis Potosí.

BT-43

Evaluation of extraction techniques of grain amaranth albumin (*Amaranthus hypochondriacus* L.) for increased efficiency. **Aldo Rodrigo González Luna**, Diana Caballero Hernández, Jesús Iván Luevano Fernández, Deyanira Quistián Martínez, Sergio Moreno Limón. Facultad de Ciencias Biológicas UANL.

BT-44

Development of recombinant strains of *Bacillus thuringiensis* expressing the endochitinase ChiA74 as inclusion bodies or chimeric crystals with Cry1Ac. **Karen Stephania González-Ponce**, Luz Edith Casados-Vázquez, Rubén Salcedo-Hernández and J. Eleazar Barboza-Corona. División Ciencias de la Vida. Universidad de Guanajuato

BT-45

Solid Phase Microextraction of Volatile Compounds in Basil (*Ocimum basilicum* L.). **Salvador González-Palomares**, Luis Humberto Rivera-Camero, Gabriel Sánchez-Zaragoza, Juan García-Estrada and Héctor Manuel González-Sánchez. Instituto Tecnológico de Ocotlán

BT-46

Mechanical properties of thermoplastic sorghum starch films reinforced with lignin from *Agave tequilana* Weber. **Rosa Angélica Guillén-Garcés**, Tania Itzel Sánchez-Gómez Andrea Cristina Hernández-Molina,

Julián Martínez-Salgado, Diana Karina Díaz de Anda, José Luis Rivera-Corona Universidad Politécnica del Estado de Morelos

BT-47

Overexpression of fatty acid synthesis and its effect over the biosynthesis of medium-chain-length polyhydroxyalkanoates (mcl-PHAs) in *Azotobacter vinelandii*. **Claudia Velázquez-Sánchez**, Fanny A. Flores, Josefina Guzmán, Guadalupe Espín, Daniel Segura. Instituto de Biotecnología, UNAM

BT-48

Selection and Characterization of a Native *Psathyrella* Strain as a Producer of Laccases Exhibiting Significant Activity under Near-Neutral pH. **Carlos Eduardo Hernández Luna**, Juan Francisco Contreras Cordero, Michelle Ramírez-Plascencia, Guadalupe Gutiérrez-Soto, Sergio Manuel Salcedo-Martínez. Facultad de Ciencias Biológicas, UANL

BT-49

Measurement of the enzymatic activity of laccase in the wild strain 4287 and *Rho1::hyg* strains of *Fusarium oxysporum* f. sp. *lycopersici* under induction conditions and presence of a chelating agent. **Wendy S Hernández-Monjaraz**, César Caudillo-Pérez, Karla L Macías-Sánchez. Unidad Profesional Interdisciplinaria de Ingeniería Campus Guanajuato, IPN

BT-50

Studying of the phenotype from the mutants with deletion *ape2* gene and function of leucine aminopeptidase *yspII* from *Schizosaccharomyces pombe*. **Irma Herrera-Camacho**, Nessie Gutiérrez-Díaz, José Luis Cerriteño-Sánchez, Lourdes Millán-PérezPeña, Sandra Reyes-Carmona, Nora Rosas-Murrieta. Centro de Química-ICUAP-BUAP

BT-51

Obtaining mutants haploids and diploids by deletion of *ape2* gene of leucine aminopeptidase *yspII* from *Schizosaccharomyces pombe*. **Irma Herrera-Camacho**, Nessie Gutiérrez-Díaz, José Luis Cerriteño-Sánchez, Lourdes Millán-Pérez Peña, Felix Luna, Nora Rosas-Murrieta. Centro de Química-ICUAP-BUAP

BT-52

cDNA obtaining and three-dimensional structure of Maradol Papaya (*Carica papaya* L.) endoxylanase. **J Jesús Iniestra González**, Robert E Paull, Helen Turano, Ana Paulina Barba de la Rosa and Juan Alberto Osuna Castro. Instituto Tecnológico Superior de Tamazula de Gordiano

BT-53

Expression and biochemistry characterization of a hyaluronidase from the *Scolopendra viridis* Say VENOM. **Erika Yazmin Ibarra Rojas**, Fernando Martínez Morales, María del Carmen Gutiérrez Villafuerte. Centro de Investigación en Biotecnología, UAEM

BT-54

Transcriptional Analysis of the *Arabidopsis thaliana* TFIIB2 mutant. **Dulce Jared Jaime Gallardo**, José Antonio Miranda Ríos, José Augusto Ramírez Trujillo, Ramón Suarez Rodríguez. Centro de Investigación en Biotecnología. UAEM

BT-55

Antimicrobial peptides and commercial antibiotics synergistic effect evaluation in bacteria from diabetic foot ulcer. **Katia Esmeralda Jiménez Sánchez**, Gerardo Corzo, Alexis Jiovani Rodríguez Solis, Elba Villegas. Centro de Investigación en Biotecnología, UAEM

BT-56

Protein engineering with immunoglobulin-like fold. **Pedro Jiménez-Sandoval**, Luis Gabriel Brieba-de Castro. LANGE BIO – CINVESTAV – IPN Irapuato

BT-57

Generation of recombinant strains of *Bacillus thuringiensis* that synthesize the endochitinase ChiA74 and mosquitocidal Cry proteins. **Estefania Odemaris Juárez-Hernández**, Luz Edith Casados-Vázquez, Gustavo Hernández-Guzmán and J. Eleazar Barboza-Corona. División Ciencias de la Vida, Universidad de Guanajuato, Campus Irapuato-Salamanca

BT-58

Identification and cDNA cloning of a hyaluronidase from the skin secretion of *Trachycephalus typhonius*. **Selma Jurado**, Francia García, Herlinda Clement, Gerardo Corzo. Instituto de Biotecnología, UNAM

BT-59

Kinetics of fatty acids accumulation in *Chlorella vulgaris* jointly immobilized with *Azospirillum brasilense* at three temperatures. **Luis Leyva**, Mariana Díaz Tenorio, Luz Estela de Bashan, Yoav Bashan. Northwestern Center for Biological Research. Instituto Tecnológico de Sonora

BT-60

Proteomic approach to the early stages of pozol fermentation. **Cynthia Leyva-Arguelles**, Catalina Cárdenas, Carmen Wachter, Rosario Vera and Romina Rodríguez-Sanoja. Instituto de Investigaciones Biomédicas, UNAM

BT-61

Relationship between the increase in the oxidative state and the improvement of infectivity in the *Isaria fumosorosea* conidia. Francisco Miranda-Hernández, Katiushka Arévalo-Niño, Gerardo Saucedo-Castañeda. **Octavio Loera**. Universidad Autónoma Metropolitana - Iztapalapa

BT-62

Identification of a peroxidase related to post-harvest insect resistance of maize (*Zea mays* L.) by activity-directed proteomics. **L. Margarita López – Castillo**, Luis Gabriel Brieba, Robert Winkler. LANGEBIO. CINVESTAV – IPN Irapuato.

BT-63

Hydrolytic enzymes of membrane and cell wall assay secreted by endophytic bacteria as an antifungal factor against *Mycosphaerella fijiensis*. **Gloria Margarita Macedo Raygoza**, Miguel Juan Beltrán García. Universidad Autónoma de Guadalajara

BT-64

Influence of Rho1 in the expression of *Icc2*, *Icc3* and *Icc5* in strains of *F. oxysporum* f. sp. *Lycopersici*. **Karla L. Macías-Sánchez**, Alejandra Reyes-Medina. Unidad Profesional Interdisciplinaria de Ingeniería. Campus Guanajuato, IPN.

BT-65

Application of marine yeast for biological control of the phytopathogenic fungus *Aspergillus flavus* on post-harvested *P. vulgaris* L. **Rubí Alejandra Martínez Camacho**, Felipe Ascencio. Centro de Investigaciones Biológicas del Noroeste

BT-66

Synthetic production of a Teparybean lectin: generation of the genetic construction and insertion into *Agrobacterium tumefaciens*. **Martínez-Alarcón D**, Castro-Guillén JL, Cruz-Hernández A, Blanco-Labra A, Mora-Áviles A, Espinoza-Núñez AM, García-Gasca T. Facultad de Química, Universidad Autónoma de Querétaro

BT-67

Characterization of biologically active cyclic dipeptides from bacterial isolates originating in pools of Cuatro Ciénegas, Coahuila. **Enrique Martínez-Carranza**, Valeria Souza-Saldívar, Alma Laura Díaz-Pérez, Victor Meza-Carmen, Jesús Campos-García. IIQB, Universidad Michoacana

BT-68

Alkaloid synthesis during seedling development in *Argemone mexicana* L. **Felipe Vázquez-Flota**, Jorge Xool-Tamayo, Miriam Monforte-González, UBBMP, CICY

BT-69

Analysis of *Trichoderma atroviride* –plant interaction with fungal strains that overexpress the *Swo1* gene. **Richa Mehta**, Edgar Balcázar, Karina Atritzán Hernández, Alfredo Herrera-Estrella, y Jorge Luis Folch Mallol. Centro de Investigación en Biotecnología. UAEM

BT-70

Generation and characterization of truncated versions of MelA tyrosinase from *Rhizobium etli* expressed in *Escherichia coli*. **María Alejandra Mejía Caballero**, Paul Gaytán Colín, Luz María Martínez Mejía, Alfredo Martínez Jiménez, Guillermo Gosset Lagarda. Instituto de Biotecnología, UNAM

BT-71

The physicochemical characterization and antioxidant potential of *Bromelia karatas* fruits. **Karen Elizabeth Meza Vázquez**, Juan Florencio Gómez Leyva, José Pedro Castruita Domínguez, Julia Zañudo Hernández, Rudy Antonio García Reyes, Lucila Méndez Morán. CUCBA, Universidad de Guadalajara

BT-72

Metabolic characterization of tomato plants using low-temperature plasma (LTP) as a new ambient ionization technique. **Josaphat Miguel Montero-Vargas**, John Délano-Frier and Robert Winkler. Biotecnología y Bioquímica. CINVESTAV - Unidad Irapuato

BT-73

Elaboration of fermented fruit beverages. **Sandra Morales Arrieta**, Ana Verónica Hernández Cervantes, Yarely Lizeth Palacios Martínez, Eduardo Rodríguez Díaz, Iván Ocampo Abraján, Zamri Miamin Ramírez Carbajal and Antonio Lagunas Figueroa. Universidad Politécnica del Estado de Morelos

BT-74

Expression and preliminary characterization of amarantin acidic subunit and amarantin acidic subunit modified with bioactive peptides. **Jocksan Ismael Morales Camacho**, Silvia Luna Suárez, Daniel Alejandro Fernández Velasco. CIBA - Instituto Politécnico Nacional, Tlaxcala

BT-75

Isolation of lactic acid bacteria which produce bacteriocins from rancho cheese. **Aurea Itzel Morales-Estrada**, Rosa María Ahidé López-Merino, Minerva Georgina Araiza-Villanueva, Araceli Contreras-Rodríguez. Escuela Nacional de Ciencias Biológicas, IPN

BT-76

Isolation and characterization of fungi for the biocontrol of *Phytophthora capsici* L. and their protective effect in *Capsicum annuum* L. plants. **Montserrat Betzabé Muñoz Medina**, Saúl Fraire-Velázquez Víctor Balderas Hernández. Universidad Autónoma de Zacatecas

BT-77

Peptides of different protein fractions from Chia seeds (*Salvia hispanica*) produced inhibitory activity against Angiotensin I-converting enzyme. **Blanca Nieto-Rendón**, Domancar Orona-Tamayo, María Elena Valverde, Talía Hernández-Pérez and Octavio Paredes-López. CINVESTAV – IPN Irapuato

BT-78

Analyzing the function the *arg2* gene encoding the small subunit of carbamoyl-phosphatesynthetase as a transformation marker in *Trichoderma atroviride*. **Omar Nieves Ugalde**, Fidel Landeros Jaime, José Antonio Cervantes Chávez y Edgardo Ulises Esquivel Naranjo. Universidad Autónoma de Querétaro

BT-79

Cloning and recombinant expression of Elongation Factor 1- α of *Leishmania infantum*. **Ana Cristina Olivas Bejarano**, Annete Itzel Apodaca Medina, Sergio Alonso Durán Pérez, Claudia del Rosario León Sicaños, Jeanett Chávez Ontiveros, Vianney Francisco Ortiz Navarrete, Evangelina Beltrán López and Héctor Samuel López Moreno. Universidad Autónoma de Sinaloa

BT-80

Insecticidal activity of δ -PaluIT1 in *Heliothis virescens* and *Apis mellifera*. **Giovanna Patricia Olivos Trejo**, Ninfa María Rosas García Alexis Joavany Rodríguez Solís, Gerardo Corzo and Elba Villegas. Centro de Investigación en Biotecnología, Facultad de Biología UAEM

BT-81

Peptides with antihypertensive functions of protein fractions from the canary seeds (*Phalaris canariensis* L.). **Domancar Orona-Tamayo**, Blanca Nieto-Rendón, María Elena Valverde, Talía Hernández-Pérez and Octavio Paredes-López. CINVESTAV – IPN Irapuato

BT-82

Stability evaluation of bioemulsifier by *Acinetobacter bouvetii* in polluted water with diesel. **Ortega de la Rosa N. D.**, Motolinia Alcántara E. A., Gutiérrez Rojas M. Universidad Autónoma Metropolitana Unidad Iztapalapa

BT-83

AtGRDP2, a novel glycine-rich domain protein, involves in plant growth and development. **María Azucena Ortega-Amaro**, Aída Araceli Rodríguez-Hernández, Margarita Rodríguez-Kessler, Eloísa Hernández-Lucero, Sergio Rosales Mendoza, Alejandro Ibáñez-Salazar, Pablo Delgado-Sánchez, Juan Francisco Jiménez-Bremont. División de Biología Molecular, IPICYT

BIOCHEMISTRY EDUCATION**E-1**

Validation of the questions of an “extraordinary examination” in the subject of Biochemistry and Molecular Biology of the medical curriculum at the School of Medicine, UNAM. **Héctor Javier Delgadillo-Gutiérrez** and Yolanda Saldaña Balmori. Departamento de Sistemas Biológicos, UAM-X

E-2

Validation of the conversion rate of weight live weight processed sea cucumber, *Isostichopus badionotus*, through the moisture content. **Cynthia Paulina Lucio Ramírez**, Aurea Luisa May Ruiz, Luis Alfonso Rodríguez Gil, Carlos Francisco Reyes Sosa. Instituto Tecnológico de Mérida

E-3

The use of clinical scenarios in biochemistry and the development of competencies (communication and collaborative work). **Deyamira Matuz Mares**, Diego Rolando Hernández Espinosa, María Alicia del Sagrado Corazón Cea Bonilla. Biochemistry. Faculty of Medicine, UNAM

E-4

Analysis of the accreditation criteria for the students in the first year of the medicine school in the matter of biochemistry and molecular biology. **Rebeca Milán Chávez**, Deyamira Matuz Mares, Eugenia Flores Robles. Juan Pablo Pardo Vázquez. Biochemistry. UNAM

E-5

Correlation between the grades attained at the high school of origin and the final grades reached in the subject of Biochemistry and Molecular Biology of the medical curriculum in a group of students at the School of Medicine, UNAM. **Yolanda Saldaña-Balmori** and Héctor Javier Delgadillo-Gutiérrez. Departamento de Bioquímica, Facultad de Medicina, UNAM

OXYGEN REACTIVE SPECIES**OR-1**

Effect of senescence-associated secretory phenotype (SASP) from primary mice fibroblasts on cellular migration, proliferation and senescence on the transformed cell line L929. **Angélica Alejandra Aquino Cruz**, Gibrán Pedraza Vázquez, Luis Ángel Maciel Barón, Mina Konigsberg, Norma Edith López DíazGuerrero, Armando Luna López. Ciencias Básicas y de la Salud. UAMI

OR-2

Neuroprotective effect of *Spirulina (Arthrospira) platensis* in intracellular redox state in rats undergoing endotoxic shock. **Bañuelos-León Janeeth**, Ramírez-Anguiano Ana Cristina, Sánchez-Peña María Judith, Pacheco-Moisés Fermín, Gabriel-Ortiz Genaro, Bitzer-Quintero Oscar Kurt, Rosales-Rivera Lizet Yadira, Velasco-Ramírez Sandra Fabiola. Centro Universitario de Ciencias Exactas e Ingenierías (CUCEI), Universidad de Guadalajara

OR-3

Phospholipid Hydroperoxide Glutathione Peroxidase 2 (GPX2) preserves yeast mitochondrial function and viability during chronological aging in the presence of PUFA. **Melina Canizal García**, Elizabeth Calderón Cortés, Renato Canizal García, Marissa Calderón Torres, Luis Alberto Madrigal Pérez, Alfredo Saavedra Molina Christian Cortés Rojo. Instituto de Investigaciones Químico-Biológicas. Universidad Michoacana de San Nicolás de Hidalgo

OR-4

HSP70 protein levels in young and old monosodium glutamate (MSG) female and male treated mice: a link between obesity and aging. **Hernández-Bautista RJ**, Cazares-Ordoñez S, Konigsberg M, López-DíazGuerrero NE. Departamento de Ciencias Básicas y de la Salud. UAMI

OR-5

Karwinskia humboldtiana administration as a model of the induction of oxidative stress in *Sprague Dawley* rat: evaluation of melatonin and fish oil as preventive treatment. **Margarita Cid Hernández**, Ana C. Ramírez Anguiano, Ana L. Briones Torres, Luis J. González Ortíz, Genaro Gabriel Ortiz y Fermín P. Pacheco-Moisés. CUCEI. Universidad de Guadalajara

OR-6

Dynamic of reactive oxygen species in roots from *Arabidopsis* under Aluminum treatment. **Lidia Díaz**, Jesús S. Lopez Bucio, Alejandra Hernández-Barrera, Rosana Sánchez, Eric Johnson, Hen-ming Wu, Alice Cheung, Federico Sánchez, Rosana Sánchez, Carmen Quinto and Luis Cárdenas. Instituto de Biotecnología, UNAM

OR-7

Tissular and biochemical changes in maize scutellum during transition of germination to the postgermination. **David Manuel Díaz-Pontones**, Sandra González-Martínez, José Isaac Corona-Carrillo, Coral Viruel, Gerardo Chávez-Nájera y Mitzi Flores-Ponce. UAMI

OR-8

Effect of the specific NADPH oxidase inhibitor (VAS2870) on intracellular calcium changes: a connection between ROS and calcium signaling. **Román Espinal**, Ana-María Velarde-Buendía, Alejandra Hernández-Barrera, Rosana Sánchez, Federico Sánchez, Carmen Quinto and Luis Cárdenas. Instituto de Biotecnología, UNAM

OR-9

Comparative DNA repair capacity of human adipose derived mesenchymal stem cells to remove oxidative damage induced by different oxidative insults. **Jonathan Lozano Salgado**, Emilio Rojas del Castillo, Mahara A Valverde Ramírez. Instituto de Investigaciones Biomédicas, UNAM

OR-10

Malfunctioning assembly of the iron–sulfur cluster machinery in *Saccharomyces cerevisiae* produces mitochondrial oxidative stress by an iron-dependent mechanism, affecting respiratory function and increases sensitivity to ethanol and ROS. **Mauricio Gómez Gallardo**, Rocío Pérez-Gallardo, Luis A. Sánchez Briones, Alma Díaz-Pérez, Christian Cortes-Rojo and Jesús Campos-García. IIQB, Universidad Michoacana de San Nicolás de Hidalgo

OR-11

Effects of DPI (NADPH oxidase inhibitor) on post-fatigue tension of slow skeletal muscle. **Ana María Guzmán Ambriz**, Elizabeth Sánchez-Duarte, Xóchitl Trujillo, Miguel Huerta, Alain Rodríguez-Orozco, Christian Cortés-Rojo, Rocío Montoya-Pérez. IIQB, Universidad Michoacana

OR-12

Maize polyamine oxidases are important for tumor formation in the maize-*Ustilago maydis* interaction. **Ignacio Jasso Robles**, Alicia Becerra Flora, Margarita Juarez-Montiel, Juan Francisco Jiménez-Bremont, Ramón Fernando García de la Cruz, María Azucena Ortega-Amaro, Margarita Rodríguez-Kessler. Facultad de Ciencias, Universidad Autónoma de San Luis Potosí

OR-13

Antioxidant Compounds of Timbe (*Acaciella angustissima*) and Hypoblycemic Effect. **Sandra N Jimenez-Garcia**, Wendy M Carmen-Sandoval, Adriana Jheny Rodríguez-Méndez, Ramón G Guevara-González, Irineo Torres-Pacheco, María Elena Villagran-Herrera, Adrés Cruz-Hernández, Ana A Feregrino-Perez. Facultad de Ingeniería, Universidad Autónoma de Querétaro

OR-14

Influence of Different Elicitors on phenolic compounds in sweet peppers (*Capsicum annuum* L.) cultivated in greenhouse conditions. **Sandra N. Jimenez-Garcia**, Moises A. Vazquez-Cruz, Lina Garcia-Mier Ramón G. Guevara-Gonzalez, Irineo Torres-Pacheco, Rosalía V. Ocampo-Velázquez, Adrés Cruz-Hernández, Ana A. Feregrino-Perez. Universidad Autónoma de Querétaro

OR-15

Ascorbate-glutathione cycle in mitochondria of tomato fruit in two different ripening stages. **Omar R López-Vidal**, Ana M Jiménez Hurtado, Mina Konigsber Fainstein, Laura J Pérez-Flores, Fernando Rivera Cabrera, José A Mendoza Espinoza y Fernando Díaz de León-Sánchez. Departamento de Ciencias de la Salud, Universidad Autónoma Metropolitana

OR-16

Determination of antioxidant activity in larvae and vermicompost of the insect *Tenebrio molitor*. **José de Jesús Luna-Díaz**, Ana Cristina Ramírez-Anguiano, Fermín Paul Pacheco-Moisés, Lizet Yadira Rosales-Rivera, Oscar Kurt Bitzer-Quintero, María Judith Sánchez-Peña, Luis Javier González-Ortiz, Sandra Fabiola Velasco-Ramírez. CUCEI. Universidad de Guadalajara

OR-17

Chronic administration of S-allylcysteine (SAC), do not causes histological damage in eight tissues, and induces Nrf2 factor and antioxidant enzymes in brain of male rats. **Perla D Maldonado**, Urzula Franco-Enzástiga, Sandra Bautista-Pérez, Laura Garza-Montoya, Diana Barrera-Oviedo. Instituto Nacional de Neurología y Neurocirugía “Manuel Velasco Suarez”

OR-18

Effect of moderate physical exercise as Tai chi and Walking on Biological markers of Oxidative stress and chronic inflammation in the elderly. **Juana Rosado-Pérez**, Mirna Ruiz-Ramos, Víctor M. Mendoza-Núñez. Laboratorio de Investigación en Gerontología, FES Zaragoza UNAM

IMMUNOLOGY**I-1**

Role of ZnT1 in the regulation of hepatic Zinc after an experimental inflammatory process. **Violeta Aburto Luna**, Gerardo Santos López, Samuel Treviño Mora, Diana Moroni González, Alfonso Daniel Díaz Fonseca, Patricia Aguilar Alonso, and Eduardo Miguel Brambila Colombres. Facultad de Ciencias Químicas, BUAP

I-2

Effect of oestradiol and testosterone on the activity of GPx and levels of MDA in CBA/Ca mice infected with *P. berghei* ANKA. **Jesús Aguilar Castro** and Martha Legorreta Herrera. FES Zaragoza, UNAM

I-3

Glycosylation pathways in T lymphocyte-associated signal transducer and activator of transcription-6 in a mouse model knockout. **Janette Arias Escobedo**, Francisco Javier Urrea Ramírez. Instituto Nacional de Enfermedades Respiratorias

I-4

Effect of oestradiol and testosterone on the activity of catalase and the levels of haemoglobin in CBA/Ca mice infected with *P. berghei* ANKA. **Fidel Orlando Buendía González** and Martha Legorreta Herrera. FES Zaragoza, UNAM

I-5

Analysis of Branched-chain amino acid metabolism and mTOR activation during macrophage polarization. **Ana E. Bunt Alatorre**, Armando R. Tovar Palacio, Nimbe Torres y Torres, Vianney Ortiz Navarrete, Lilia G. Noriega López. Fisiología de la Nutrición, Instituto Nacional de Ciencias Médicas y Nutrición Salvador Zubirán

I-6

Effect of sexual hormones on the variation of weight and temperature in CBA/Ca mice infected with *P. berghei* ANKA. **Luis Antonio Cervantes Candelas** and Martha Legorreta Herrera. Laboratorio de Inmunología Molecular. FES Zaragoza, UNAM

I-7

Cortactin regulates intestinal epithelial permeability by stabilizing tight junctions. **Alí Francisco Citalán-Madrid**, Alexander García-Ponce, Hilda Vargas-Robles, Abigail Betanzos, Klemens Rottner, Rudolf Mennigen, Michael Schnoor. Molecular Biomedicine. CINVESTAV - IPN

I-8

Virulence, immunopathology and transmissibility of selected strains of *M. tuberculosis* from epidemiological studies in Colombia evaluated in a murine model. **María Fernanda Cornejo**, Jaime Robledo, Dulce Mata, Brenda Marquina, Jorge Barrios, Luis García and Rogelio Hernández-Pando. National Institute of Medical Sciences and Nutrition Salvador Zubirán

I-9

Effect of the E6 and E7 oncoproteins of HPV16 on dendritic cells in skin of transgenic mice models. **Gabriela Damián-Morales**, Nicolás Serafín-Higuera, Enoc Mariano Cortés-Malagón, Genaro Rodríguez-Uribe, Mario Adán Moreno-Eutimio, José Bonilla-Delgado, Rodolfo Ocadiz –Delgado, Ana Alejandra Ramírez-Rodríguez and Patricio Gariglio-Vidal. Genética y Biología Molecular. CINVESTAV – IPN Zacatenco

I-10

Effects of plant antimicrobial peptides on the innate immune response of bovine mammary epithelial cells infected with *Staphylococcus aureus*. **Violeta Díaz-Murillo**, Joel E López-Meza y Alejandra Ochoa-Zarzosa. Centro Multidisciplinario de Estudios en Biotecnología-FMVZ, UMSNH

I-11

Activity of GPx and MDA levels in mice knockout for the prolactin receptor infected with *P. berghei* ANKA. **Azrael Estrada Sosa**, Carmen Clapp and Martha Legorreta Herrera. FES Zaragoza, UNAM

I-12

Plant Defensins: Structure, Function and Heterologous Expression. **Georgina Estrada Tapia**, Adolfo Guzmán Antonio, Ignacio Islas, Ernesto Ortiz, Gerardo Corzo. Unidad de Bioquímica y Biología Molecular de Plantas. CICY

I-13

Immunomodulatory effect of an adenosine derivative (IFC-305) in isoproterenol induced myocardial infarction. **Jessica Abigail Feria-Pliego**, Mariana Domínguez López, Victoria Eugenia Chagoya de Sánchez. Instituto de Fisiología Celular UNAM

I-14

Regulation of steroid hormones on the secretion of proMMP-9 produced from human fetal membranes during infection with *Escherichia coli*. **Héctor Flores Herrera**, Raúl Mendieta Flores, Denise Acuña González, Yuridia Paredes Vivas, Guadalupe García López, Iyari Morales Méndez, Irma E Sosa González, Anayansi Molina Hernández, Fabían N Díaz. Departamento de Inmunobioquímica, Instituto Nacional de Perinatología

I-15

Proinflammatory cytokines responses induced by *Pseudomonas aeruginosa* in human type II pneumocyte cells. **Fuentes Zacarías Paulina**, Barrientos Galeana Edgar, Mendieta Flores Raúl, Ortega González D Katherine, Díaz N. Fabián, Iyari Morales Méndez, García López Guadalupe, Arenas Huertero Francisco, Molina Hernández Anayansi, Flores Herrera Héctor. Instituto Politécnico Nacional

I-16

Identification and characterization of allergenic proteins in latex gloves. **Christian Galicia Díaz Santana**, Guillermo Mendoza Hernández, José Federico Del Río Portilla, Adela Rodríguez Romero. Instituto de Química, UNAM

MEDICINE, HEALTH AND NUTRITION**M-1**

Searching potential inhibitors of arginase II through virtual screening. The search for new drugs against endothelial dysfunction. **Miriam Leticia Aguirre-Raudry**, María Irene Betancourt-Conde, Alejandra Guadalupe Vazquez-Raygoza, Lluvia Iveth Ríos-Soto, Claudia Avitia-Domínguez, Marie Jazmín Sarabia-Sánchez, Artemisa Luévano-De la Cruz, Alfredo Téllez-Valencia. CIAN, Facultad de Medicina y Nutrición, UJED

M-2

Effect of sucrose-induced metabolic syndrome upon amp-activated protein kinase (ampk) and insulin signaling in the rat skeletal muscle. **Blanca Viridiana Alcantar González**, Eduardo Rodríguez Correa, Karla Carvajal. Nutrición Experimental, Instituto Nacional de Pediatría.

M-3

Antifibrotic activity of flavonoids and saponins extracted from the seed coat of black bean (*Phaseolus vulgaris*) in fibroblasts from rat heart. **Gilberto Amaro-Osejo**, Carlos Enrique Guerrero-Beltrán, José Luis González-Guerra, Guillermo Torre-Amione and Gerardo García-Rivas. Instituto de Cardiología y Medicina Vascular, Escuela de Medicina, Tecnológico de Monterrey

M-4

Reduced activity and Ca²⁺ sensitivity of ryanodine receptors in cardiomyocytes from metabolic syndrome rats. **Ma. Dolores Bello Sánchez**, Jaime Balderas-Villalobos, Hugo Aldana-Quintero, Tzindilu Molina-Muñoz, Maritza Mayorga, Karla Carvajal and Norma L Gómez-Viquez. Departamento de Farmacobiología. CINVESTAV – IPN

M-5

MT-ND3 sequence analysis in tumor tissue and peripheral blood from patients with prostate cancer. **Jesús Benítez Granados**, Juan P Méndez Blanco, André Tapia Vázquez, Mónica A Martínez Ramírez, Lisandro Vazquez Niño, Edgardo Reyes Gutiérrez, Guillermo Feria Bernal, Ramón M Coral Vázquez, Ileana P Canto Cetina. UNAM

M-6

Docking studies in shikimate dehydrogenase from *Enterobacter cloacae* to find potential inhibitors. **María Irene Betancourt-Conde**, Alejandra Guadalupe Vázquez-Raygoza, Claudia Isela Avitia-Domínguez, Lluvia Iveth Ríos-Soto, Miriam Leticia Aguirre-Raudry, Edna Madai Méndez-Hernández, Alfredo Téllez-Valencia. Medicina y Nutrición, Universidad Juárez del Estado de Durango

M-7

Effects of steam cooking on the proximate and fatty acid composition of rainbow trout (*Oncorhynchus mykiss*) from Huasca de Ocampo, Hidalgo, México. **Edith Araceli Cano Estrada**, Jair Onofre Sánchez, Javier Añorve Morga. Universidad Autónoma del Estado de Hidalgo

M-8

The Post-conditioning in the Treatment of Acute Myocardial Infarction in an Experimental Model with Metabolic Syndrome. **Juan Carlos Cantellano Degante**, Francisco Correa y Cecilia Zazueta. Instituto Nacional de Cardiología-Ignacio Chávez

M-9

Antineoplastic copper coordinated complexes (Casiopéínas) uncouple oxidative phosphorylation and induce mitochondrial permeability transition in cardiac mitochondria and cardiomyocytes. **Mariana Carrancá**, Luis E Martínez, Christian Silva-Platas, Carlos E Guerrero-Beltrán, Elena Cristina Castillo, Jesús R Garza,

Noemí García and Gerardo García-Rivas. Hospital Zambrano Hellion

M-10

Identification of Enteropathogenic Bacteria with DNA Microarrays. **Lorena Chávez González**, José Luis Santillán Torres, Simón Guzmán León, Jorge Ramírez Salcedo. Unidad de Microarreglos de DNA, Instituto de Fisiología Celular, UNAM

M-11

Effect of chronic immobilization stress and sucrose consumption on the development of hepatic steatosis in male infant rat. **Adriana Corona Pérez**, Ida Soto Rodríguez, Francisco Castelán, Margarita Martínez Gómez, Jorge Rodríguez Antolín y Leticia Nicolás Toledo. Universidad Autónoma de Tlaxcala.

M-12

Molecular identification of respiratory viruses in patients with clinical diagnosis of influenza. **Iliana Alejandra Cortés Ortiz**, Edith Violeta Martínez Martínez, Juan Carlos Bravata Alcántara, Gustavo Acosta Altamirano, Mónica AlethiaCureño Díaz, Mónica Sierra-Martínez. Hospital Juárez de México

M-13

Sleep restriction induces glucosetolerance in rats. **Andrea Cortés Panameño**, Beatriz Gómez González, Javier Velázquez Moctezuma and Emilio Domínguez Salazar. Biología de la Reproducción, UAMI

M-14

Evaluation of the effect of avocado oil on renal vascular reactivity and mitochondrial dysfunction induced by angiotensin II. **Lucio Hernández de la Paz**, Elizabeth Calderón Cortés, Rocío del Carmen Montoya Pérez, Rafael Salgado Garciglia, Alfredo Saavedra Molina, Daniel Godínez Hernández, Christian Cortés Rojo. IIQB. Universidad Michoacana de San Nicolás de Hidalgo

M-15

Proteomic Analysis of Rat Serum Treated with DNase I and Papain (preliminary results). **Desiree Ariadna De La Cruz Sigüenza**, Catalina Trejo Becerril, Humberto Gonzales Marques, Alfonso Dueñas Gonzales. Instituto Nacional de Cancerología

M-16

Expression and distribution of tight junction proteins in peritoneal cells of diabetic rats. **Yazmín Debray García**, Elsa Irene Sánchez Montes de Oca, Rafael Rodríguez Muñoz, José Luis Reyes Sánchez. Fisiología Biofísica y Neurociencias, CINVESTAV – IPN

M-17

Sucrose consumption plus and chronic stress induces histological changes in the adrenal gland in the male rat. **Yadira Díaz-Aguila**, Francisco Castelán, Mauricio Díaz-Muñoz, Estela Cuevas, Margarita Martínez-Gómez, Jorge Rodríguez-Antolín and Leticia Nicolás-Toledo. Universidad Autónoma de Tlaxcala

M-18

Low ADAR 1, ADAR 2 and ADAR 3 levels are associated with a different expression of microRNAs in Idiopathic Pulmonary Fibrosis. **Gabriela Díaz-Piña**, Eduardo Montes, Alfonso Salgado, Pedro Zamudio, Iliana Herrera, José Cisneros, Luis Felipe Dominguez, Carina Becerril, Marco Checa, Victor Ruiz. Instituto Nacional de Enfermedades Respiratorias

M-19

Effect of Omega 3 Fatty Acids in Diabetic Female Rats. **María del Consuelo Figueroa García**, Francisco Alfredo Saavedra Molina, Christian Cortés Rojo and Ricardo Mejía Zepeda. UMSNH

M-20

Effect of plant lectins of *Ruta graveolens* on breast cancer cells. **Laura Cecilia Flores García**, Francisco Martínez Flores y Catalina Machuca Rodríguez. Facultad de Estudios Superiores Zaragoza. UNAM

M-21

Treatment with Pirfenidone produces an important reduction in necroinflammation score, fibrosis index and increased gene expression of CB2 in patients with liver cirrhosis. **Lucia Flores-Contreras**, Ana Sandoval-Rodríguez A, Silvia Lucano-Landeros, Inmaculada Arellano-Olivera, Juan Armendáriz-Borunda. Instituto de Biología Molecular y Terapia Génica, CUCS, Universidad de Guadalajara

M-22

Development of an in vitro experimental model for human amniochorion rupture. **Miriam K García-Cid**, Elisa García-Vences, Victor G Perea-Santillán, Felipe Vadillo-Ortega, Carmen Canchola-Sotelo, Noemí Meraz-Cruz. Vinculación Científica. Facultad de Medicina, UNAM / INMEGEN

M-23

Transcriptomic profiling of adipose tissue in response to ACET/moxibustion treatment in obese women. **Jessica M. García-Vivas**, Ma. Del Carmen García Cardona, Carlos Galaviz-Hernandez, Francisco Lozano-Rodríguez, Cesar Lopez-Camarillo, Laurence A Marchat. Biotechnology Programy Molecular Biomedicine Program, ENMH-IPN

MICROBIOLOGY AND PARASITOLOGY**MP-1**

Association between nonspecific febrile illness and leptospirosis. **Norma Patricia Adan Bante**, Danilo Manuel González Román, Adolfo Virgen Ortiz, Ramona Icedo García, José Guadalupe Soñanez Organis, Ana Paola Balderrama Carmona. Ciencias Químico-Biológicas. Universidad de Sonora

MP-2

Study of the role of Avin03910 depolymerase in the metabolism of Polyhydroxybutyrate polyester (PHB) in *Azotobacter vinelandii*. **Libertad Adaya**, Josefina Guzmán, Soledad Moreno, Daniel Pfeiffer, Dieter Jendrossek, Guadalupe Espín y Daniel Segura. Instituto de Biotecnología, UNAM

MP-3

Estudio de la Diguanilatociclasa E putativa de *Azospirillum brasilense*, que participa en crecimiento y estrés. **JJ Aguilar-Piedras**, A Gamboa-Pérez, A Ramírez-Mata, Ma. L Xiqui Vázquez, y BE Baca. Centro de Investigaciones en Ciencias Microbiológicas, BUAP

MP-4

Frequency of mutations in the *rpoB*, *katG* and *inhA* gene that confer drug resistance to rifampin and isoniazid in patients with Tuberculosis in the State of Jalisco: identification molecular basis. **Daniel Aguirre-Chavarria**, Guadalupe González Palomar, Martin López-Rodríguez, Manuel Sandoval-Díaz, Juan Carlos Villanueva-Arias and Ikuri Álvarez-Maya. Medical and Pharmaceutical Biotechnology Unit. CIATEJ

MP-5

Role of the putative domain, of the MucG protein, for the degradation of c-di-GMP, involved in alginate synthesis in *A. Vinelandii*. **Carlos L Ahumada-Manuel**, Josefina Guzmán, Guadalupe Espín and Cinthia E Núñez. Microbiología Molecular, Instituto de Biotecnología, UNAM

MP-6

Isolation, identification and characterization of cyanobacteria from biofilms of the archaeological site of Yohualichan, Puebla. **Raúl Alcalde-Vázquez**, Isela Aguila-Maldonado, Nora Beatriz Medina-Jaritz y Roxana Olvera-Ramírez. Escuela Nacional de Ciencias Biológicas. IPN

MP-7

Family characterization of Cyclin dependent kinases in *Trichomonas vaginalis*. **Erick Amador Gaytán**, Karla López Pacheco, Nataly Morales Galeana y María Imelda López Villaseñor. Instituto de Investigaciones Biomédicas, UNAM

MP-8

The role of Avin08930 in biosynthesis of Poly- β -Hydroxybutyrate and alkylresorcinols in *Azotobacter vinelandii*. **Leidy Patricia Bedoya-Pérez**, Soledad Moreno, Guadalupe Espín. Departamento de Microbiología Molecular, Instituto de Biotecnología, UNAM

MP-9

Effect of dichloromethane-methanol extract of *Parthenium hysterophorus* on enteropathogenic *Escherichia coli* (EPEC) adherence. **Ana Patricia Beltrán Ogazón**, Jazmín P Espinosa Rivero, Erika P Rendón Huerta and Irma Romero Álvarez. Bioquímica. Facultad de Medicina. UNAM

MP-10

Exploring the molecular mechanisms that maintain the *Rhizopus microsporus*–*Burkholderia rhizoxinica* symbiosis. **José Roberto Bermúdez-Barrientos**, Ceí Abreu-Goodger and Laila Pamela Partida Martínez. LANGE BIO – CINVESTAV IPN Unidad Irapuato

MP-11

The flavonoid (-)-epicatechin affects erythrophagocytosis in *Entamoeba histolytica*. **Verónica Bolaños-Suárez**, Jacqueline Soto-Sánchez, Laurence Marchat, Esther Ramírez-Moreno. Laboratorio de Biomedicina Molecular, ENMyH- IPN

MP-12

Identification of a gene encoding putative flagellin in *Haemophilus influenzae*. **Alejandro Carabarin Lima**, Elías Campos de la Cruz, Patricia Lozano Zarain, Ygnacio Martínez Laguna, Sirenia González Posos, Rosa del Carmen Rocha Gracia. Instituto de Ciencias. BUAP

MP-13

Modification of the host cell cytoskeleton during *Toxoplasma gondii* encystment. **Kitzia Nohemí Castro Elizalde**, Pedro Hernández Contreras, Sirenia González Pozos, Ricardo Mondragón Flores. Unidad de Microscopía Electrónica (LaNSE). CINVESTAV-IPN, Zacatenco

MP-14

Potato bacterial endophytes as biocontrol and biofertilize reagents. **Claudia I Cisneros-Reyes**, Enrique Tinajero-Cortés, Miguel A Ibarra-Arias, Francisco R Torres-Guardado, Luis A Plascencia-Correa, Marcela de la Mora-Amutio, Julia del C Martínez-Rodríguez and Tetsuya Ogura. CIBA Tlaxcala-IPN

MP-15

Biodiversity and community structure associated torrhizosphere of *Quercus* sp. in Sierra de Lobos, Guanajuato. **Juan Gualberto Colli Mull**, Daniela Iturriaga Garcidueñas, Francisco Alejo Iturbide, Victoria Hernández Hernández y Gustavo Alberto de la Riva de la Riva. Instituto Tecnológico Superior de Irapuato

MP-16

Functional characterization of the heterodimerization domain of GrIR, a LEE-encoded negative regulator of Enteropathogenic *Escherichia coli*. **Emma Aurora Cruz Gómez** y José Luis Puente García. Microbiología Molecular, Instituto de Biotecnología, UNAM

MP-17

Implementing the BioDAgeneas a transformation marker in *Trichoderma atroviride*. **Vincent Anthony Czarnowski Corona**, Fidel Landeros Jaime, José Antonio Cervantes Chávez y Edgardo Ulises Esquivel Naranjo. Universidad Autónoma de Querétaro

MP-18

Dense granule protein 12 (GRA12) is a virulence factor associated to subpellicular cytoskeleton in *Toxoplasma gondii*. **Rubén Díaz-Martín**, Carmen Gómez-de León, Sirenia González-Pozos, David Bzik, Ricardo Mondragón-Flores. Unidad de Microscopía Electrónica (LaNSE), CINVESTAV-IPN

MP-19

Microbial Diversity and Community Structure, by ARDRA Analysis to soils of Natural Protected Areas in Guanajuato Mexico. **Juan Alberto Esquivel Ramírez**, Claudia Isela Gonzáles López, Francisco Alejo Iturbide, Gustavo Alberto de la Riva de la Riva y Juan Gualberto Colli Mull. Instituto Tecnológico Superior de Irapuato

MP-20

Antibacterial activity of extracts and lectins from leaves of Capitaneja (*Verbesinacrocata*). **Bertha Fenton Navarro** Anahí Luisa Reyes Virrueta, Edgar Vázquez Contreras, Graciela Letechepía Vallejo Sergio Gutiérrez Castellanos. Laboratorio de Glicobiología. Facultad de Ciencias Médicas y Biológicas “Dr. Ignacio Chávez”, Universidad Michoacana

MP-21

Binding of extracellular matrix proteins to *Acanthamoeba castellanii* is modulated by surface molecules. **Lérida Liss Flores-Villavicencio**, J Alberto Juárez-Rodríguez, M Angeles Sotelo-Olague, Gloria Barbosa-Sabanero, J Jesus Serrano-Luna, Mineko Shibayama-Salas, Patricia Talamas-Rohana, Myrna Sabanero-López. Biology Department, DCNyE Campus Guanajuato

MP-22

Isolation of beer spoiling bacteria *Lactobacillus* and *Pediococcus* from environmental samples. **Jorge Hugo García García**, Luis Damas Buenrostro, Luis Galán Wong and Benito Pereyra Alférez. Instituto de Biotecnología. Facultad de Ciencias Biológicas. Universidad Autónoma de Nuevo León

GENETIC REGULATION & EPIGENETIC**GR-23**

Down regulation of SERCA3 expression in gastrointestinal cancer cells is modulated by Sp transcription factors. **Lucía Flores-Peredo**, Gabriela Rodríguez, Jonathan González, Ariel Velarde and Ángel Zarain-Herzberg. Departamento de Bioquímica, Facultad de Medicina, UNAM

GR-24

Proximal CAAT box mediates SERCA2 increased transcription by thapsigargin. **Jorge Alberto Fragoso Medina**, Gabriela Rodríguez Rodríguez, Ana Catalina Arreola Tapia and Ángel Zarain Herzberg. Biochemistry. Department, School of Medicine, UNAM

GR-25

Analysis of human eIF3f phosphorylation by CDK1/cyclin B and its role in the control of protein synthesis. **César Adrián Gómez Correa**, Ana Edith Higareda Mendoza and Marco Aurelio Pardo Galván. Facultad de Ciencias Médicas y Biológicas “Dr. Ignacio Chavez”

GR-26

Towards the functional characterization of Brf1, a subunit of transcription factor TFIIB, in the parasite *Leishmania major*. **Maricarmen Gómez-García**, Luis E. Florencio-Martínez, Rebeca Manning-Cela and Santiago Martínez-Calvillo. Facultad de Estudios Superiores Iztacala, UNAM

GR-27

Expression of MicroRNA-143 In Epithelial Cell Lines. **Alejandro González Torres**, Luis Marat Alvarez Salas. Departamento de Genética y Biología Molecular, CINVESTAV - IPN

GR-28

Analysis of the histone deacetylation on *Ustilago maydis* dimorphism. **Juan Manuel González-Prieto**, Nubia Andrea Villota-Salazar, José Ruiz-Herrera. Biotecnología Vegetal, Centro de Biotecnología Genómica, IPN

GR-29

Transcription Factor Sp1 Regulates T-Type Ca^{2+} Channel $Ca_v3.1$ Gene Expression. **Ricardo González-Ramírez**, Elizabeth Martínez Hernández, Alejandro Sandoval y Ricardo Félix Grijalva Hospital General Dr. Manuel Gea González

GR-30

The role of the histone demethylase KDM4A in a cancer model. **Lissania Guerra-Calderas**, Ernesto Soto-Reyes, Iliana Alcalá Moreno, Rodrigo González Barrios, Héctor Aquiles Maldonado-Martínez, David Cantú de León, Clementina Castro, Luis A Herrera. Unidad de Investigación Biomédica en Cáncer - Instituto Nacional de Cancerología

GR-31

Interaction of lncRNA transcribed from α satellite repeats and the protein HP1 α in a colorectal cancer model. **Nancy Gutiérrez Hernández**, Victor Manuel Del Castillo Falconi, Rodrigo González-Barrios, Ernesto Soto-Reyes, Clementina Castro H., Luis A Herrera. Unidad de Investigación Biomédica en Cáncer - Instituto Nacional de Cancerología

GR-32

Regulation of ABA-INSENSITIVE (ABI) 4 transcription factor in *Arabidopsis thaliana*. **Alma Fabiola Hernández-Bernal**, Josefát Gregorio, Elizabeth Córdoba and Patricia León. Departamento de Biología Molecular de Plantas, Instituto de Biotecnología, UNAM

GR-33

Quantitative analysis of the telomere position effect on gene expression. **Jhonatan A. Hernández-Valdés**, Alejandro Juárez-Reyes & Alexander de Luna. LANGEBIO – CINVESTAV IPN

GR-34

Analysis of the small RNA RgsA in *Azotobacter vinelandii*. **Jesús Manuel Huerta Campos**, Liliana López Pliego, Daniel Segura González, Ricardo Carreño López, Miguel Castañeda Lucio. CICM-IC. BUAP

GR-35

Effect of resveratrol in the expression of SERCA2b and SERCA3 in breast cancer cell lines. **Eduardo de Jesús Izquierdo Torres**, Gabriela Rodríguez y Ángel Alfonso Zarain Herzberg. Molecular Biology Laboratory, Department of Biochemistry, School of Medicine, UNAM

GR-36

Transcriptional regulation of *ipdCandhisC1* genes involved in indole-3-acetic acid production in *Azospirillum brasilense* Sp7 strain. **Saúl Jijón Moreno and** Beatriz E Baca. Centro de Investigaciones en Ciencias Microbiológicas, BUAP

GR-37

Genetic regulation of nitrogen metabolism in *Lachancea kluyveri*. **José Ángel Jiménez Benítez** y Lina Raquel Riego Ruiz. División de Biología Molecular. IPICYT

GR-38

Pseudogenization and reactivation of gene expresión by gain or erosion within promoter regions during the expansion of gene families in plants. **Estela Jiménez Morales**, Víctor Aguilar Hernández, Laura Aguilar Henonin and Plinio Guzmán. CINVESTAV Unidad Irapuato

GR-39

A new lncRNA is regulated by the bidirectional promoter of *CatSper1*. **Salma E Jiménez-Badillo**, Norma A Oviedo de Anda, Javier Hernández Sánchez. Departamento de Genética y Biología Molecular, CINVESTAV, IPN

GR-40

Functional characterization of polyamine oxidase-2 (PAO2) Uorf from *Arabidopsis thaliana*. **Juan Francisco Jiménez-Bremont**, Alicia Becerra Flora and María de la Luz Guerrero-González. División de Biología Molecular. IPICYT

GR-41

Effect of arsenic exposure on DNA methylation in brain áreas. **Verónica Jiménez-Suárez**, Lesly Doniz-Padilla, Roberto González-Amaro, María E Jiménez-Capdeville. Departamento de Bioquímica, Facultad de Medicina, Universidad Autónoma de San Luis Potosí

GR-42

Analysis of *Macrophomina phaseolina* (Tassi) Goid. pathogenicity genes considering several epigenetic backgrounds. **Nubia Andrea Villota-Salazar**, Sanjuana Hernández-Delgado, Juan Manuel González-Prieto. Biotecnología Vegetal, Centro de Biotecnología Genómica, IPN

GR-43

Role of the RNA binding protein UmRrm75 from *Ustilagomaydis*. **Margarita Juárez-Montiel**, Margarita Rodríguez-Kessler, Alicia Becerra-Flora, Juan Francisco Jiménez-Bremont. Instituto Potosino de Investigación Científica y Tecnológica AC

GR-44

Can miR396 and its target genes regulate leaf development in *Phaseolus vulgaris* L. under drought conditions?. **María Beatriz Pérez-Morales**, Cecilia Contreras-Cubas, Alejandra Covarrubias and José Luis Reyes-Taboada. Biología Molecular de Plantas, Instituto de Biotecnología, UNAM

GR-45

Functional study of neutral trehalase “*NTH1* gene” in *Ustilago maydis*. **Alonso López Cabrera**, Laura Valdés Santiago, Claudia Geraldine León Ramírez, Edgardo Ulises Esquivel Naranjo, Fidel Landeros Jaime, José Ruiz-Herrera and José Antonio Cervantes Chávez. Facultad de Química-UAQ

SIGNAL TRANSDUCTION**ST-33**

In vitro and in vivo endothelial activation mediated by tumor soluble factors secreted by different breast cancer cell lines. **César Alejandro Guzmán Pérez**, Alberto Jose Cabrera Quintero, Alfredo Ibarra Sánchez, José Luis Ventura Gallegos, Claudia González Espinosa, Alejandro Zentella Dehesa. Instituto Nacional de Ciencias Médicas y Nutrición Salvador Zubirán

ST-34

Scaffold activity of the MAPKK Pbs2p during the endoplasmic reticulum stress response in *Saccharomyces cerevisiae*. **Mariana Hernández Elvira**, Laura Kawasaki Watanabe, Roberto Coria Ortega. Departamento de Genética Molecular, Instituto de Fisiología Celular, UNAM

ST-35

Physical interaction between the GTPases Gpn1 and Gpn3 takes place in the cytoplasm. **Gema Rosa Cristóbal Mondragón**, Victor De la Rosa Jiménez, Gisela E. Rangel Yescas, Ana Estela Pérez Mejía, León Islas, Roberto Sánchez Olea, and Mónica R Calera. Instituto de Física, UASLP

ST-36

FGF-2 induces epithelial to mesenchymal transition in MDA-MB-231 cell line. **José Antonio Hernández Ortiz**, Eduardo Monjaraz-Guzmán. Instituto de Fisiología. BUAP

ST-37

YMCA: Yeast MultiColor Assay. **Cynthia Hernández-Garduño**, Francisco Manuel Amezola-Chávez, Beatriz Cruz-Castañeda, Gerardo Cruz-Castañeda, Minerva Estefanía Núñez-Manjarrez, Fernanda Zamora-Cortina, Francisco Torres-Quiroz. Instituto de Fisiología Celular, UNAM

ST-38

TEM5/GPR124, a tumor endothelial marker orphan GPCR, modulates the signaling effects of cancer cell-secreted factors. **Magda Nohemí Hernández-Vásquez**, Guadalupe Reyes-Cruz and José Vázquez-Prado. Department of Pharmacology. CINVESTAV-IPN

ST-39

Hyperactivation rescue in spermatozoa from potassium channel *Slo3*^(-/-) knockout mice. **Francisco Fabio Herrera Rodríguez**, Celia Santi and Claudia L. Treviño Santa Cruz. Instituto de Biotecnología, UNAM

ST-40

Role of protein kinase Fyn on the regulation of TNF secretion stimulated by LPS in mast cells. **Alfredo Ibarra-Sánchez**, Martín Avila, Ulrich Blank, Marina Macías-Silva and Claudia González-Espinosa. CINVESTAV-IPN

ST-41

"G-protein receptor magnitude of signaling depends on the glycocalyx and flow". **Azucena E. Jiménez-Corona** & Rafael Rubio García. Facultad de Medicina, UASLP

ST-42

Novel estrogen signaling pathway in breast cancer cells migration. **Javier Esteban Jiménez-Salazar**, Mina KönigsbeGR-Fainstein, Luis Enrique Gómez-Quiroz & Pablo Damián-Matsumura. Biology of Reproduction and Health Sciences. UAMI

ST-43

Leptin induces FAK activation and cell migration in a Src-dependent pathway in breast cancer cells. **Juan C Juárez Cruz**, Bernabé Visoso Torres, Eduardo Castañeda Saucedo, Mercedes Calixto Gálvez, Miguel A

Mendoza Catalán, Napoleón Navarro Tito. Ciencias Químico Biológicas. Universidad Autónoma de Guerrero

ST-44

High doses of IL-2 inhibit cell proliferation by inducing an arrest in the G1 phase of the cell cycle in cervical cancer cell lines CALO and INBL. **María del Carmen Lagunas Cruz**, Arturo Valle Mendiola, Benny Weiss-Steider, Isabel Soto Cruz. Facultad de Estudios Superiores Zaragoza, UNAM

ST-45

Innate and adaptive IL-9 orchestrates type 2 immunity. **Paula Licona-Limón**, Jorge Henao-Mejía, Angela U. Temann, Nicola Gagliani, Ileana Licona-Limón, Harumichi Ishigame, Liming Hao, De' Broski R Herbert, Richard A Flavell. School of Medicine. Yale University

ST-46

Tissue inhibitor of metalloproteinase-4 regulates stemness and apoptosis in cervical cancer cells. **Floria Lizárraga**, Magali Espinosa, Gisela Ceballos, Iván Bahena, Angela Shwarz, Montserrat Vega, Vilma Maldonado and Jorge Meléndez. National Institute of Genomic Medicine

ST-47

Electrophysiological and pharmacological characterization of *Slo3* channels in mouse spermatogenic cells. **Verónica Loyo Celis**, Alberto Darszon and Gerardo José Orta Salazar. Instituto de Biotecnología, UNAM

ST-48

The function of the Syk and STAT3 in the regulation of Interleukin 10 expression in human macrophages infected with *Mycobacterium bovis*. **Edgardo Madrid-Paulino**, Tomás Villaseñor-Toledo, Leonor Pérez-Martínez and Gustavo Pedraza-Alva. Medicina Molecular y Bioprocesos, Instituto de Biotecnología, UNAM

ST-49

The identification of kinases, cyclases and phosphatases in mitochondria from the human placenta. **Federico Martínez Montes**, Sofia Olvera Sanchez, Oscar Flores Herrera, Mercedes Esparza Perusquia, Erika Gomez Chang. Bioquímica, Facultad de Medicina, UNAM

ST-50

Importance of the nucleocytoplasmic transport cycle of the GTPase Gpn1 on the subcellular localization of RNAPII and RNAPII. **Mayra Martínez Sánchez**, Esmeralda Nolasea Cruz, Mónica Calera y Roberto Sánchez Olea. Instituto de Física, Universidad Autónoma de San Luis Potosí

ST-51

Injury signal molecules activate MAPK pathways to trigger asexual reproduction in *Trichoderma atroviride*. **Elizabeth Medina-Castellanos**, Edgardo Ulises Esquivel-Naranjo, Martin Heil, Alfredo Herrera-Estrella. LANGE BIO. CINVESTAV-IPN Irapuato

ST-52

Dissection of the protein-protein interaction between Sdo1 and Efl1 using yeast two-hybrid. **Alfonso Méndez Godoy**, Nuria Sánchez Puig. Instituto de Química, UNAM

ST-53

Gpn1 and Gpn3, GTPases involved in nuclear import of RNA polymerase II, mutually determine their subcellular distribution and protein levels. **Lucía E Méndez Hernández**, Ana E Pérez Mejía, Bárbara Lara Chacón, Ángel A Barbosa Camacho, Sonia G Peña Gómez, Mayra Martínez Sánchez, Angélica Y Robledo Rivera, Roberto Sánchez Olea, and Mónica R Calera. Instituto de Física, UASLP

ST-54

Transcriptional profiling of pirfenidone reveals immunomodulatory pathways associated to Nrf2 activation in primary culture of human Hepatic Stellate Cells. **Margarita Montoya-Buelna**, José Macías-Barragán, Alessandra Caligiuri, Erica Novo, Maurizio Parola, Jesús García-Bañuelos, Massimo Pinzani, Juan Armendáriz-Borunda. CUCS, Universidad de Guadalajara

ST-55

Analysis of the effect of *G. duodenalis* trophozoites treated with TPCK on epithelial homeostasis and on signaling pathways using a model of duodenal loop in gerbils (*Meriones unguiculatus*). **Mora-Hernández**

Yaremit, Fonseca-Liñán Rocío, Galindo-Gómez Silvia, Quezada-Lázaro Rodrigo, Silva-Olivares Angélica, Nava-Domínguez Porfirio, Shibayama-Salas Mineko, Ortega-Pierres Guadalupe. CINVESTAV – IPN Zacatenco

ST-56

Expression profile of Hsp90 α and Hsp90 β , and their involvement in signalling mediated by β -catenin on cervical cancer cell lines. **Silvia Gabriela Morales-Guadarrama**, José de la Luz Díaz-Chávez, Carlos Pérez-Plasencia, Luis Alonso Herrera-Montalvo, Carlo César Cortés-González. Instituto Nacional de Cancerología, Unidad de Investigación Biomédica en Cáncer, IIB-UNAM

ST-57

The AMP-activated protein kinase (AMPK) is involved in the regulation of lipid metabolism in *Caenorhabditis elegans*. **Elizabeth Moreno Arriola**, Daniel Ortega Cuellar, Mohammed El Hafidi Bentlakder, Karla Carvajal Aguilera. Instituto Nacional de Pediatría

ST-58

Phospholipases C and D modulate vanillin production elicited by salicylic acid in *Capsicum chinense* Jacq. **Armando Muñoz-Sánchez**, Beatriz Adriana Rodas-Junco, Felipe Vázquez-Flota and SM Teresa Hernández-Sotomayor. Centro de Investigación Científica de Yucatán

ST-59

The mating heterotrimeric G protein participates in the yeast endoplasmic reticulum stress response. **Rocío Navarro-Olmos**, Citlalli Rodríguez-Cervantes, Laura Kawasaki-Watanabe, Laura Ongay-Larios and Roberto Coria. Genética Molecular, Instituto de Fisiología Celular, UNAM

ST-60

The role of protein E6 and its small isoform E6*I of HPV-18 in the Wnt signaling pathway. **Leslie Olmedo Nieva**, Jesús Omar Muñoz Bello, Alma Mariana Fuentes González, Adriana Contreras Paredes and Marcela Lizano Soberón. Unid. Investigación Biomédica Cáncer, INCAN

ST-61

Biotin deficiency induces a decrease in mitochondrial mass mediated by the activation of Akt in liver. **Estefania Ochoa-Ruiz**, José Corella-Vázquez, Lucy Camberos-Luna, Luis Alberto Luévano-Martínez, Salvador Uribe-Carvajal, Rodrigo Díaz-Ruiz, Antonio Velázquez-Arellano. Instituto de Investigaciones Biomédicas. Torre de Investigación INP

ST-62

The yeast two-component response regulator Skn7 participates in the response to tunicamycin induced stress. **Abiram Eliab Olivares-Reséndiz**, Eunice Alejandra Domínguez-Martín, Laura Kawasaki-Watanabe, and Roberto Coria. Genética Molecular, Instituto de Fisiología Celular, UNAM

ST-63

Interaction of Gonadotropin-releasing hormone receptor with protein calnexin depends of the species. **Alejandro Cabrera-Wrooman**, Jo Ann Janovick, P Michael Conn. Oregon National Primate Research Center, Oregon Health and Science University

BASIC BIOCHEMISTRY**B-76**

Influence of MIF absence on hepatic mitochondrial function using a MURINE model of diabetes mellitus Type two. **Alejandra Lira-León**, Cabellos-Avelar Tecilli, Gutiérrez-Cirlos Madrid Emma Berta, Zamora Sánchez Yuriko, Juárez Avelar Imelda, Rodríguez-Sosa Miriam. FES Iztacala UBIMED, UNAM

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Polyphosphate increases cadmium resistance in *Methanosarcina acetivorans*. **Elizabeth Lira-Silva**, Ricardo Jasso-Chávez, Biochemistry, INC “Ignacio Chávez”

B-78

Expression, purification and characterization of CGI58/ABHD5 enzyme. **Miriam Llamas García**, Gabriela Montero Morán, Samuel Lara González. Laboratorio de Biología Estructural, IPICYT

B-79

Characterization of cyclin proteins implied in cell cycle regulation of *Trichomonas vaginalis*. **Karla Concepción López Pacheco**, Erick Amador Gaytán y María Imelda López Villaseñor. Instituto de Investigaciones Biomédicas, UNAM

B-80

Role of S-adenosylmethionine and Methionine Adenosyl transferases in a sequential model of cirrhosis-hepatocellular cancer induced by DEN treatment. **María Guadalupe Lozano-Rosas**, Nora Gabriela Velasco-Loyden, Mariana Domínguez López and Victoria Chagoya de Sánchez. Instituto de Fisiología Celular, UNAM

B-81

Triosephosphate isomerases of *Arabidopsis thaliana*. **Elvy Daniela Lucio Hernandez**, Renata Elizarraraz Morrill, Margarita Lopez, Pedro Jimenez, Karla Rojas, Alfredo Torres Larios, Samuel Lara, Luis G Brieba. LANGE BIO, CINVESTAV - IPN Irapuato

B-82

Membrane supercomplexes and complexes of oxygenic photosynthesis in the marine cyanobacterium *Prochlorococcus* MIT 9313. **Jesús Barrera Rojas**, Luis E González de la Vara, Lourdes E Leyva Castillo, Jorge Zarco Mendoza and Carlos Gómez Lojero. Bioquímica. CINVESTAV IPN. Unidad Zacatenco

B-83

Energetic basis of molecular recognition of guanine nucleotides by the ribosomal GTPase Efl1. **Axel Luviano**, Nuria Sánchez Puig, Enrique García Hernández. Instituto de Química. UNAM

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Aminopeptidases as potential markers of celular aging in *Schizosaccharomyces pombe*. **Mario Maciel Rodríguez**, Laura Morales Lara, Sandra Raquel Reyes Carmona, Lourdes Millán Pérez Peña, Irma Herrera Camacho, Nora Hilda Rosas Murrieta. CQ-IC. BUAP

B-85

Preliminary localization by confocal microscopy of a protein DING in seeds of habanero chili (*Capsicum chinense* Jacq.). **Dianeli de Jesús Madera Piña**, Ligia Brito Argáez, Rita Ramona Uc-Ku, Angela Kú González, Marco Antonio Villanueva Méndez, Ignacio Islas-Flores. Unidad de Bioquímica y Biología Molecular de Plantas, CICY

B-86

The structure, stability and fibrillogenesis of a model amyloidogenic protein as a function of pH. **Ma. Isabel Velázquez López**, Sergio Romero Romero, Miguel Costas Basín, Yazmín Frías Lucio, Héctor Ceceña Álvarez, Roberto Maya Martínez, Carlos Amero, Nina Pastor, and D Alejandro Fernández Velasco. Facultad de Medicina, UNAM

B-87

Structural and functional characterization of two chitinase-like proteins from *Hevea brasiliensis* belonging to the glycosil-hydrolase family (GH19). **Carol Siseth Martínez-Caballero**, Patricia Cano-Sánchez, Israel Mares-Mejía, Martha L Macías-Ruvalcaba, Juan A Hermoso and Adela Rodríguez-Romero. Instituto de Química, UNAM

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The glucose transporter 1 -Glut1- plays an important role in the white shrimp *Litopenaeus vannamei* in the response to hypoxia. **José A Martínez-Quintana**, Alma B Peregrino-Urriarte, L Adrián Gámez-Alejo, Silvia Gómez-Jiménez, Gloria Yepiz-Plascencia. Centro de Investigación en Alimentación y Desarrollo, A.C.

B-89

Posttranslational Regulation of maize Spermine Synthase 1: A Key Enzyme In Polyamine Metabolism. **Maruri-López Israel**, Rodríguez-Kessler Margarita, and Jiménez-Bremont Juan Francisco. División de Biología Molecular, IPICYT

B-90

Identification of beta-glucosidase isoenzymes (*TdGlu1* y *TdGlu2*) from teosinte *Zea diploperennis*. **Carlos Alberto Matias Cervantes**, Sergio Espíndola Mateos, Liliana Hernández García. Eduardo Pérez Campos, Manuel Sánchez Rubio, Nora Hilda Rosas Murrieta and Margarito Martínez Cruz. Instituto Tecnológico de Oaxaca

B-91

Identification of an allosteric GlcNAc6P-binding site with a novel structure. **Andrea Celeste Medina García**, Jorge Marcos Viquez, Mario L. Calcagno. Facultad de Medicina, UNAM

B-92

MDM2 E3 ubiquitin ligase activity is regulated by inter and intra molecular interactions. **Ixaura Medina-Medina**, Angel Torres-Rosales, Yolanda Reboloso-Gómez, Gregorio Alvarez-Fuentes and Vanesa Olivares-Illana. Instituto de Física, Universidad Autónoma de San Luis Potosí

B-93

Mmp8-Mmp13 double deficient mouse is more sensitive to experimental pulmonary fibrosis. **Fabián Vergara Ovalle**, Sandra Cabrera Benítez, Mariana Maciel Herrerías, Miguel Gaxiola Gaxiola, Moisés Selman Lama, Annie Pardo Cemo. Facultad de Ciencias, UNAM

B-94

A histological and immunohistochemical study of beta cells in streptozotocin diabetic rats treated with *Carica papaya* leaf extract chloroform. Isela Esther Juárez Rojo **Rodrigo Miranda**, Pedro Hilario Miranda Osorio, Carlos A Tovilla Zarate, Teresa Ramón Frias, Andrés E Castell-Rodríguez, Juan C Díaz-Zagoya. DACS, Universidad Juárez Autónoma de Tabasco

B-95

A new experimental model to study primary and secondary metabolism in *Capsicum chinense* Jacq.: cell suspension from placentas. **María de Lourdes Miranda-Ham**, Jemina Tuyub-Che, Fray M Baas-Espinola and Lizbeth A Castro-Concha. Unidad de Bioquímica y Biología Molecular de Plantas, CICY

B-96

Antiproliferative activity of *Tournefortia mutabilis* VENT. in cell line MCF-7 of breast cancer. **Zoila Mora-Guzmán**, Ma. Del Socorro Pina-Canseco, Ruth Martínez-Cruz, Rebeca López-Marure, Eduardo Pérez-Campos, Luis Bernardo Flores-Cotera, Ma. Teresa Hernandez-Huerta, Laura Juárez-Chávez. Facultad de Medicina y Cirugía. UABJO

B-97

Antibacterial activity of *Lophocereus schottii* (Muso) and *Pachycereuspecten-aboriginum* (Etcho) against *Escherichia coli* (ATCC 23922). **Edgar F Moran-Palacio**, Luis Alberto Zamora-Alvarez, Adolfo Virgen-Ortiz, and Norma Patricia Adan-Bante. Ciencias Químico Biológicas y Agropecuarias. Universidad de Sonora

B-98

Antifungal activity of *Zizyphus obtusifolia* (Jutuki) against *Aspergillus niger* (NRRL3). **Edgar F. Moran-Palacio**, Paulina Sayas-Galindo, Luis Alberto Zamora-Alvarez, Ema Carina Rosas-Burgos, Adolfo Virgen-Ortiz and José Guadalupe Soñanez-Organis. Ciencias Químico Biológicas y Agropecuarias. Universidad de Sonora

B-99

Direct analysis of biomolecules from microorganisms by Low-Temperature Plasma Ionization coupled to Mass Spectrometry Imaging (LTP-MSI). **Abigail Moreno Pedraza** & Robert Winkler. CINVESTAV. Irapuato

B-100

Energy disturbances in metabolic syndrome are related to development of neurodegenerative diseases. **Joceline Aidee Baires López**, Bryan Phillips, Karla Carvajal. Instituto Nacional de Pediatría

B-101

Mass Spectrometry Characterization of Trypanothione and Novel Peptides of Medical Importance Isolated from *Acanthamoeba polyphaga*. **Raúl N Ondarza-Vidaurreta**, Eva Hernández-Márquez, Gerardo Hurtado Sil, Mathew Woolery and Francisco Hernandez-Sandoval. UNAM–INSP–University of California–CIBNOR

B-102

Characterization of the forms of U / DAPC complex in vascular smooth muscle cells of human. **Ariadna Jazmín Ortega Lozano**, Jessica Márquez Aniceto, Mario Edgar Tena Sanabria, Nayeli Suarez Reyes, Juan Fernando Sanmiguel Minauro. UIM. Genética humana, Hospital de Pediatría, CMN S XXI IMSS

B-103

Evaluation of the possible herbicide activity of an alkaloid isolated of *Ricinus communis* L. **Valeria Ortega Mendoza**, Karina Zarco Tovar, Beatriz King Díaz, María Isabel Aguilar Laurents, Blas Lotina Hennsen. Bioquímica, Facultad de Química. UNAM

B-104

Effect of protein phosphatases secreted by promastigotes and amastigotes of *Leishmania mexicana* in human macrophages. **Dalia Margarita Ortiz-Lozano**, Alma Reyna Escalona-Montaño, Arturo Wilkins-Rodríguez, Araceli Rojas-Bernabé, Laila Gutiérrez-Kobeh and M Magdalena Aguirre García. Facultad de Medicina, UNAM

B-105

Putative Transcription Factors In *Trichomonas vaginalis*. **Olivia Parra Marín**, Lluvia Rosas Hernández, Imelda López Villaseñor. Instituto de Investigaciones Biomédicas, UNAM

B-106

Inhibition of amyloid fiber formation for the protein 6aR24G, associated with light chain amyloidosis disease. **Ángel Enrique Peláez Aguilar**, Roberto Carlos Maya Martínez, Lina Andrea Rivillas Acevedo, Gilberto Valdés García, Nina Pastor Colón, Carlos Amero Tello. Centro de Investigaciones Químicas, UAEM

B-107

Digestive physiology and characterization of the enzymatic activity during larval development of spotted rose snapper *Lutjanus guttatus*. **Renato Peña**, Ivette Moguel-Hernández, Héctor Nolasco-Soria, Silvie Dumas, Mauricio Contreras-Olguín, Laura Flores-Montijo y Margarita Rangel-Durán. Centro Interdisciplinario de Ciencias Marinas-IPN

B-108

Bio-guided isolation of antibacterial compounds from *Rhizophora mangle* L. (mangle rojo) against *Staphylococcus aureus* (ATCC 6538P). **Luis Alberto Zamora-Alvarez**, Greda Acela Yañez-Farías, Eduardo Ruíz-Bustos, Ema Carina Rosas-Burgos, Jesús A. Rosas-Rodríguez and Edgar F. Moran-Palacio. Departamento de Ciencias Químico Biológicas y Agropecuarias. Universidad de Sonora

B-109

New functions for known proteins involved in mitochondrial protein import. **José Carlos Ponce Rojas**, Roberto Yañez, Fabiola Jaimes Miranda, Alexander de Luna y Soledad Funes. Departamento de Genética Molecular, Instituto de Fisiología Celular, UNAM

B-110

Protein phosphatase PP2C in *Leishmania mexicana* parasites. **Mariana Zuñiga-Fabian**, Alma Escalona-Montaño, Laila Gutiérrez-Kobeh, Ruy Pérez-Monfort, Nallely Cabrera-González, Ingeborg Becker, Ricardo Mondragon-Flores and M. Magdalena Aguirre-García. Departamento de Medicina Experimental, Facultad de Medicina, UNAM

B-111

Binding thermodynamics in periplasmic binding proteins: A comparison between HisJ and LAOBP. **Nancy O Pulido Mayoral**, F Aarón Cruz Navarrete, Haven A López Sánchez, Alejandro Sosa Peinado. Enrique García Hernández and D Alejandro Fernández Velasco. Facultad de Medicina, UNAM

B-112

Effect of β 3-adrenergic agonist (carazolol) on calcium regulation of Sarcoplasmic Reticulum from rat slow skeletal muscle. **Ibrahim Arley Ramirez-Soto**, Eduardo Rodríguez Correa, Aura Jiménez Gaduño, Rocío Álvarez y Alicia Ortega. Facultad de Medicina, UNAM

B-113

Kinetic mechanism of thioredoxin-glutathione reductase from *Taenia crassiceps*. **Juan L Rendón**, Alberto Guevara-Flores, Oscar Flores-Herrera y Juan P Pardo. Facultad de Medicina, UNAM

SYSTEMS BIOLOGY & BIOINFORMATICS**SB-17**

Characterization of pathogenic organisms using next generation sequencing and bioinformatic. **Edgar Omar Fragoso García**, Alejandra García Molina y Abraham Itzcoatl Acatzi Silva. Subdirección de Secuenciación y Bioinformática. SENASICA

SB-18

Study of reductive genomic evolution in prokaryotes. **David Martínez Cano**, Luis Delaye. Department of Genetic Engineering, CINVESTAV-IPN Irapuato

SB-19

Genome assembly of *Burkholderia* sp. and analysis of the functional annotation of genes involved in the degradation of organophosphorus compounds. **Fernando Martínez-Ocampo**, Elida C Popoca-Ursino, Luis F. Lozano-Aguirre, Janette Onofre-Lemus, Ma. Laura Ortiz-Hernández, Armando Hernández-Mendoza, Edgar Dantán-González. Centro de Investigación en Biotecnología, UAEM

SB-20

Metagenomic analysis of root-associated bacteria in bean plants. **Francisco Medina-Paz**, Ceil Abreu-Goodger and Martin Heil. CINVESTAV-IPN Irapuato

SB-21

A dynamical model of the regulatory network that controls terminal differentiation of B lymphocytes. **Akram Sharim Méndez Rangel**, Luis Antonio Mendoza Sierra, Instituto de Investigaciones Biomédicas, UNAM

SB-22

The Regulatory Network of Lymphopoiesis in Mammals. **Luis Mendoza**. IIB, UNAM

SB-23

Meta-analysis of DNA microarrays for generate a progression model of melanoma. **Daniel Ortega-Bernal**, Elena Aréchaga-Ocampo, Claudia Haydée González de la Rosa and Claudia Rangel-Escareño. Departamento de Ciencias Naturales, UAM, Unidad Cuajimalpa

SB-24

Molecular dynamics simulation of EhCFIm25 protein and analysis of its ability to BIND RNA. **Juan David Ospina-Villa**, Jorge Luis Rosas-Trigueros, Absalom Zamorano-Carrillo, César López-Camarillo, Laurence Marchat Marchau. Escuela Nacional de Medicina y Homeopatía, IPN

SB-25

Proteomic analysis of *Entamoeba histolytica* in vivo assembled pre-mRNA splicing complexes. **Jesús Valdés**, Tomoyoshi Nozaki, Emi Sato, Yoko Chiba, Kumiko Nakada-Tsukui, Nicolás Villegas-Sepúlveda, Robert Winkler, Elisa Azuara-Liceaga, MaríaSaraí Mendoza-Figueroa, Natsuki Watanabe, Herbert J. Santos, Yumiko Saito-Nakano, José Manuel Galindo-Rosales. CINVESTAV – IPN Zacatenco

SB-26

The role of molecular hinges in protein stability and folding. **Jaqueline Padilla Zúñiga**, UAMI

SB-27

Structural modelling of the N463D, R275G mutations in FKRP. **Tobias Portillo-Bobadilla**, Carmen Navarro Fernández-Balbuena, Rosa Elena Escobar-Cedillo, Luz Berenice López-Hernández, Alexandra

Berenice Luna-Angulo, Francisco Javier Estrada-Mena, Guillermina Ávila-Ramírez, Elisa Martínez-Coria, Benjamín Gómez-Díaz. UNAM. Instituto Nacional de Rehabilitación

SB-28

Effect of pH on the Affinity of Chymopapain to Chicken Cystatin. An enzyme-inhibitor association modulated by electrostatics. **Francisco Reyes Espinosa**, Rafael A. Zubillaga, Alfonso Arroyo Reyna, Iris N. Serratos and Ponciano García Gutiérrez. Departamento de Química. UAMI

SB-29

Transcriptional regulation of coding and non-coding RNAs by the Cyclin Dependent Kinase 8 (CDK8) module of Arabidopsis Mediator. **Joel Rodríguez-Medina**, Daniel Lepe-Soltero, Claudia Silva-Ortega, Cei Abreu-Goodger and Stewart Gillmor. LANGEBIO – CINVESTAV – Irapuato

SB-30

Phylogenetic study of sperm-specific Na⁺/H⁺ exchanger. **Francisco Romero Corpus**, Takuya Nishigaki Shimizu. Departamento de Genética del Desarrollo y Fisiología Molecular. IBT, UNAM

SB-31

GMOseq: A Next Generation System for GMO characterization. **Salvador Ángel Romero Martínez**, Zhailalsaura Santana Hernández, Claudia Castillo Mercado y Abraham Itzcoatl Acatzi Silva. Subdirección de Secuenciación y Bioinformática. SENASICA

SB-32

Phylogenetic and biogeographic inference from six cpDNA loci reveals Neotropical origin of grammitid ferns. **Viacheslav Shalisko**, José Antonio Vázquez-García, Miguel Angel Muñoz-Castro, Cinthia Karina Pérez-Espejo, Alma Rosa Villalobos-Arámbula. Instituto de Botánica, Departamento de Botánica y Zoología, CUCBA, Universidad de Guadalajara

SB-33

Systematic identification of signal integration by Protein Kinase A. **Francisco Torres-Quiroz**, Marie Filteau, Guillaume Diss, Alexandre K Dubé, Isabelle Gagnon-Arsenault, Andrea Schrafl, Andrée-Ève Chrétien, Anne-Lise Steunou, Ugo Dionne, Jacques Coté, Nicolas Bisson, Eduard Stefan, Christian R Landry. Bioquímica y Biología Estructural, Instituto de Fisiología Celular, UNAM

PHARMACOLOGY**PH-1**

Sexual hormones and their influence over mitochondria: estrogens. **Raúl Fabián Alvarez Pimentel**, Alfredo Cabrera, Salvador Uribe, Nadia Rivero-Segura, Marco Cerbón, Juan C Torres-Narvaez, Natalia Pavón. Departamento de Farmacología, Instituto Nacional de Cardiología

PH-2

Isoindoline-1,3-dione derivatives analogous to dopamine as potential agonist to D₂ receptor. **Erik Andrade Jorge**, José Raúl Bahena Herrera, Jesús García Gamez, Marvin A Soriano Ursúa and José G Trujillo Ferrara. Departamento de Bioquímica, Escuela Superior de Medicina, IPN

PH-3

Aliskiren modifies (Pro)renin receptor associated with canonical Wnt/β-catenin signaling expression on heart and kidney in 5/6 nephrectomy-induced hypertension in rats. **Massiel Alfonsina Ávila Ramírez**, Liliana Anguiano Robledo, Pedro López Sánchez. Laboratorio de Farmacología Molecular, ESM-IPN

PH-4

Evaluation and synthesis of a series of 2-substituted isoindolines with probably antineoplastic activity and their action with histone deacetylase 8. **José Raúl Bahena Herrera**, Jesús García Gamez, Erik Andrade Jorge, Yudibeth Sixto López, José G Trujillo Ferrara. Escuela Superior de Medicina, IPN

PH-5

Synthesis and characterization of lipophilic bismuth dimercaptopropanol nanoparticles and their effects on oral microorganisms growth and biofilm formation. **Claudio Cabral Romero**, Appala Raju Badireddy,

Shankararaman Chellam, Rene Hernández Delgadillo, Valentin Zaragoza Magaña y Gustavo Israel Martínez González. Facultad de Odontología, UANL

PH-6

Influence of sex hormones on mitochondrial function in male rat heart. **Montserrat Gpe Cárdenas Regules**, Alfredo Cabrera, Salvador Uribe, Nadia Rivero-Segura, Marco Cerbón, Juan C Torres- Narvaez, Natalia Pavón. Farmacología, Instituto Nacional de Cardiología

PH-7

Purification and evaluation of the effect of *scammonin I* y *tyrianthin C* isolated from the *Ipomoea tyrianthina* root on gabaergic transmission system. **José Manuel Castro García**, Lucero Valladares Cisneros, Ismael León Rivera, María Del Carmen Gutiérrez Villafuerte. Centro de Investigación en Biotecnología, UAEM

PH-8

The CB1-receptoragonist PhAR-DBH-Me inhibits the proliferation of SKOV-3, MCF-7, A549 and HepG2 tumor cell lines. **Roberto Cruz-Castañeda**, Vladimir Santiago-Ortega, Iván Monsalvo, Mario Trejo-Pérez, Ignacio Regla, Isabel Soto-Cruz, Arturo Valle-Mendiola, Axel Luviano. Oncología Molecular, UIDCC, UMIEZ, FES Zaragoza, UNAM

PH-9

Design and synthesis of a novel anti-tripanosome drug and description of the binding pocket on TcTIM of fluorine containing benzothiazole. **Roberto I Cuevas-Hernández**, Sarai Martínez-Cerón, Mónica G Arellano-Mendoza, José Correa-Basurto and José G Trujillo-Ferrara. Modelado Molecular y Bioinformática y Laboratorio de Bioquímica, Escuela Superior de Medicina, IPN

PH-10

Caspase 3 activation through 7-Hydroxicoumarin in lung adenocarcinoma A-549 cells performing in vivo microinjection. **Azucena Díaz-Morales**, Maribel Soto-Núñez, Patricia Cuautle Rodríguez, Juan Molina-Guarneros. Pharmacology. Department. Faculty of Medicine, UNAM

PH-11

On the mechanism of action of the relaxing effect of the 5,4'-Dihidroxi-6,7,8,3'-Tetrametoxi-Flavone, Flavone A, on vascular smooth muscle of the rat. **Ricardo Espinosa-Tanguma**, Martha Patricia Navarro-Huerta, J Roberto Valle-Aguilera, María Dolores Brito-Orta, Aldo Azmar Rodríguez-Menchaca, Ivan Arael Aréchiga-Figueroa, Paola Algara-Suárez and Marco Martín González-Chávez. Fisiología y Biofísica, Facultad de Medicina. UASLP

PH-12

Vasorelaxant effect from chloroform extract of *Justicia spicigera*. **Edgar R. Esquivel-Gutiérrez**, Salvador Manzo-Avalos, Rafael Salgado-Garciglia, Maximiliano Ibarra-Barajas, Mónica Clemente-Guerrero, Rocío Montoya-Pérez, Alfredo Saavedra-Molina. IIQB. Universidad Michoacana

PH-13

Natural neuroprotective compounds enhance autophagy to increase cells survival in Parkinson's disease model. **Yoandy Ferrer Marcelo**, René Hernández Vargas, Alejandro Olea Martínez, Angel Carvajal Oliveros, Enrique Reynaud Garza. Instituto de Biotecnología, UNAM

PH-14

New isoindoline-1,3dione as possible selective ligands for β_2 AR (*in silico* study). **Jesús García Gamez**, José Raúl Bahena Herrera, Erik Andrade Jorge, Marvin A Soriano Ursúa and José G Trujillo Ferrera. Departamento de Bioquímica, Escuela Superior de Medicina, IPN

PH-15

CaMKII-dependent mitochondrial calcium uniporter phosphorylation and its potential role in ventricular arrhythmias. **Jesus R Garza López** and Gerardo de J Garcia Rivas. Instituto de Cardiología y Medicina Vascular, Escuela de Medicina, Tecnológico de Monterrey

PH-16

Synergistic effect of α -mangostin on the cytotoxicity of cisplatin in a cell line of cervical cancer. **Raquel González-Macías**, Patricia Gracia-López, Jazmin Pérez-Rojas. Facultad Química, UNAM

PH-17

Antimicrobial activity of the venom of scorpion fish *Scorpaena mystes* (*Scorpaenidae*). **Cintia Gutiérrez Villegas**, Georgina Ivette López Cortés, María de Lourdes Delgado Aceves, Cristian Moises Galvan Villa, and Alfonso Enrique Islas Rodríguez. Department of Ecology, University of Guadalajara

PH-18

Rational design of boroarylamines as agonists of beta 3 adrenergic receptor. **Christian F Hernández-Martínez**, Marvin A Soriano-Ursúa, José G Trujillo-Ferrara. Escuela Superior de Medicina, IPN

PH-19

Estradiol enhances gold nanoparticles incorporation in mcf-7 breast cancer cells by modifying membrane roughness. **Carlos Lara-Cruz**, Javier Esteban Jiménez Salazar, Nikola Batina, Eva Ramón-Gallegos, Pablo Damián-Matsumura. Biology of Reproduction and Nanotechnology and Molecular Engineering Laboratory, Metropolitan Autonomous University

PH-20

Evaluation of acute and sub-acute oral toxicity of *Callistemon citrinus* extract in male Wistar rats. **Alejandro López Mejía**, Patricia Rios-Chavez, Daniel Godínez Hernández, Blanca Nateras Marin. Facultad de Biología, Universidad Michoacana de San Nicolás de Hidalgo

PH-21

Role of Rho and Rac proteins in renal vascular reactivity to angiotensin II in hypertension. **Andrea Martínez Cruz**, Alfredo Saavedra Molina, Maximiliano Ibarra Barajas y Salvador Manzo Avalos Instituto de Investigaciones Químico Biológicas, UMSNH

PH-22

Ambroxol hydrochloride antimicrobial and antibiofilm activity and the study of its mechanism of action. **Juan José Martínez Sanmiguel**, Juan Francisco Contreras Cordero, Rene Hernández Delgadillo, Valentin Zaragoza Magaña, Claudio Cabral Romero. Facultad de Odontología, UANL

PH-23

Pharmaceutical Thesaurus: unity, structure and the relationship of biomedical terminology. **Vanessa Sánchez Delgadillo**, Eniak Hernández Alarcón, Daniel Ramírez Martínez, Diana Ramírez Álvarez, Layla Michán Aguirre. Biología Comparada, Facultad de Ciencias, UNAM

PH-24

Antiproliferative and apoptotic effects of Bcr-Abl second generation inhibitors in SKOV-3 and MCF-7 tumor cell lines. **Vladimir Santiago-Ortega**, Roberto Cruz-Castañeda, Mario Trejo-Pérez, Enrique García-Hernández, Isabel Soto-Cruz, Axel Luviano, Arturo Valle-Mediola. Laboratorio de Oncología Molecular, UIDCC, UMIEZ, Facultad de Estudios Superiores Zaragoza, UNAM

IMMUNOLOGY**I-17**

Analysis of gene expression and activity of MMP9 in human corio-amniotic membranes. **Edna Elisa García Vences**, Noemi Meraz Cruz, María del Rocio Maldonado Guzmán, Yunuén Pruneda Padilla, Carmen Chancola-Sotelo, Felipe Vadillo Ortega. Facultad de Medicina, UNAM. INMEGEN

I-18

Inhibitory effect of Galectin-1 over IL-6 expression in LPS-treated decidual cells by reducing I κ B ζ . Fernando Gómez-Chávez, Violeta Castro-Leyva, Aurora Espejel-Núñez, Guadalupe Estrada-Gutierrez, Juan Carlos Cancino-Díaz, Mario Eugenio Cancino-Díaz, **Sandra Rodríguez-Martínez**. Department of Immunology, Escuela Nacional de Ciencias Biológicas, IPN

I-19

Role of the $\alpha 7$ nicotinic receptor on the LPS-induced TNF production in bone marrow-derived mast cells. **Fabiola Guzmán Mejía**, Carolina López Rubalcava and Claudia González Espinosa. Farmacobiología, CINVESTAV-IPN

I-20

Intestinal innate immune response against rotavirus infection: Role of dendritic cells from mesenteric lymph nodes. **Luis Enrique Hernández Téllez**, Vanessa López-Guerrero and Fernando Esquivel Guadarrama. Facultad de Medicina, UAEM

I-21

Recognition sites for murine IgG and IgE in the allergen Hev b 8 profilin. **José Israel Mares-Mejía**, Enrique Ortega-Soto, Adela Rodríguez-Romero. Instituto de Química, UNAM

I-22

Dissociation of immunosuppressive and nociceptive effects of fentanyl, but not morphine, after repeated administration in mice: Fentanyl-induced sensitization to LPS. **Luz María Molina Martínez**, Claudia González Espinosa, Silvia Cruz. Farmacobiología. CINVESTAV - IPN, Sede Sur

I-23

Immune sensing of *Candida non-albicans* and members of the *Sporothrix schenckii* complex. **Héctor Manuel Mora-Montes**, José Ascensión Martínez-Álvarez, María Navarro-Arias, Luis Antonio Pérez-García, Eine Estrada-Mata, and Edgar Cordero-Roldán. División de Ciencias Naturales y Exactas. Universidad de Guanajuato

I-24

Effect of cobalt chloride-induced hypoxia on the secretory machinery and the cytokine profile secreted by mast cells activated through TLR-4 and FcεRI receptors. **Itzel Guadalupe Ramírez-Moreno** y Claudia González-Espinosa. Farmacobiología, CINVESTAV - IPN

I-25

Production mechanisms of anti-Non-bilayer phospholipid arrangements IgG Antibodies. **Claudia Albany Reséndiz Mora**, Sandra Sánchez Barbosa, Luz Ángela Zárate Neira, Carlos Wong Ramírez, María Isabel Baeza Ramírez, Leopoldo Flores Romo y Carlos Wong Baeza. Bioquímica. Escuela Nacional de Ciencias Biológicas, IPN

I-26

Effects of *Bacillus thuringiensis*-derived Cry1Acproteins and identification of putative receptors in murine macrophages. **Nestor Rubio-Infante**, Damaris Ilhuicatzí-Alvarado, Ana Lilia García-Hernández, Raúl Nava-Acosta, Marilú Torres-Martínez, Leticia Moreno-Fierros. FES Iztacala, UNAM

I-27

Effect of high glucose conditions on classical and alternative activation of human macrophages *in vitro*. **Israel Torres Castro**, Úrsula Dinorah Arroyo Camarena, Guadalupe Itzel Azuceno García Galileo Escobedo González. Medicina Experimental, Hospital General de México

I-28

Toll-like Receptor-2 and Toll-like Receptor-4 Expression on Human CD16+ and CD16- Monocyte Subsets from Peritoneum in Homeostatic and Inflammatory Conditions. **Xareni R Valle Jiménez**, Sergio R Aguilar Ruiz, Joel Pinacho Jiménez. Instituto Tecnológico de Oaxaca. Centro de Investigación en Ciencias Médicas Biológicas, UABJO

I-29

Participation of germinal centers in mice with Chagas disease treated with NIPOx-B. **Carlos Wong Baeza**, Claudia Albany Reséndiz Mora, Carla Elizabeth Landa Saldivar, Lourdes Sarai Sánchez Dávila, Juan Carlos Santiago Hernández, Benjamin Noguera Torres, María Isabel Baeza Ramírez, Carlos Wong Ramírez. Escuela Nacional de Ciencias Biológicas, IPN

I-30

The Effect of BCG Vaccination on the Virulence of Different Genotypes of *Mycobacterium tuberculosis*. **Zyanya Lucia Zatarain-Barrón**, Kristin Kremer, Camilo Molina, Yadira Rodríguez, Dulce Adriana Mata-Espinosa, Brenda Marquina, Jorge Barrios-Payan, Rogelio Hernández-Pando, Dick von Soolingen. Instituto Nacional de Ciencias Médicas y Nutrición “Salvador Zubirán”

I-31

Interaction of neutrophil extracellular traps with *Trichomonas vaginalis*. **Eva E Ávila**, Yordan Jhovani Romero Contreras, Mayra C. Rodríguez and Julieta Pulido. División de Ciencias Naturales y Exactas, Universidad de Guanajuato

MEDICINE, HEALTH AND NUTRITION**M-24**

The effect of aqueous extracts of *Hibiscus sabdariffa* L. and NSAIDs on the expression of circulating cytokines in brewer's yeast-induced fever. **Adrián Gómez Baltazar**, Luz Torner Aguilar, Martha Eva Viveros Sandoval, Víctor Manuel Farías Rodríguez and Bertha Fenton Navarro. Facultad de Ciencias Médicas y Biológicas "Dr. Ignacio Chávez"

M-25

DNA microarrays making for identification of genetically modified organisms. **Simón Guzmán León**, José Luis Santillán Torres, Lorena Chávez González, Jorge Ramírez Salcedo. Unidad de Microarreglos de DNA, Instituto de Fisiología Celular, UNAM

M-26

CDP-choline ameliorates heart reperfusion damage strengthen by hyperthyroidism. **María de la Luz Hernández Esquivel**, Natalia Pavón, Mabel Buelna-Chontal, Héctor Hernández-Pacheco, Javier Belmont, Edmundo Chávez. Instituto Nacional de Cardiología "Ignacio Chávez"

M-27

Inhibitory Activity of *Reishi Medicinal Mushroom*, *Ganoderma lucidum* Transformed Cells by Human Papillomavirus. **Hernández-Márquez E**, Lagunas-Martínez A, Bermudez-Morales VH, Burguete-García AI, León-Rivera I, Montiel-Arcos E, García-Villa E, Gariglio Patricio, Madrid-Marina V, and Ondarza-Vidaurreta RN. Instituto Nacional de Salud Pública

M-28

Effects of the direct factor Xa inhibitor rivaroxaban on platelet function in Mexican patients with thrombosis. **Jesús Hernández Juárez**, Hugo Guillermo Espejo Godínez, Nidia Julieta Espinoza Islas, Rodrigo Mancilla Padilla, Abraham Majluf Cruz. Hospital Gral. Reg. No. 1. Dr Carlos Mac Gregor Sánchez Navarro, IMSS

M-29

Insulin sensitivity is inversely related to cellular energy status, as revealed by biotin deprivation. **Hernández-Vázquez Alain de J**, Salvador-Adriano Ana, Vargas-Chávez Sonia, Ortega-Cuellar Daniel, Sánchez-Salvador Alan, Tovar Armando R y Velázquez-Arellano Antonio. Instituto de Investigaciones Biomédicas, UNAM

M-30

Development and evaluation of a novel panel of tumor-associated antigens with applications in breast cancer diagnosis. **César López Camarillo**, Cecilia Pagaza Straffon, Luis Herrera, José Díaz Chávez, Mauricio González Avante, Rosalba Carmona, Elena Arechaga Ocampo, Mauricio Castañon, Yadira Palacios, Laurence A Marchat. Universidad Autónoma de la Ciudad de México

M-31

Spoligotyping of resistant *M. tuberculosis* isolates in Jalisco México. **Gladys Guadalupe López-Avalos**, Martín López-Rodríguez, Manuel Sandoval-Díaz, Juan Carlos Villanueva-Arias and Ikuri Álvarez-Maya. Medical and Pharmaceutical Biotechnology Unit, CIATEJ

M-32

Matrix Metalloproteinase (MMP)-28 increases growth rate and migration of lung alveolar epithelial cells and localizes in the nuclei of alveolar epithelial cells in Idiopathic Pulmonary Fibrosis. **Mariel Maldonado**, Iliana Herrera, Jorge García Álvarez, Remedios Ramírez, Blanca Ortíz Quintero, José Cisneros, Moisés Selman, Annie Pardo. Laboratorio de Bioquímica, Facultad de Ciencias, UNAM

M-33

Effect of nicotinamide on cell viability and secretion of plasminogen activators in invasive MDA-MB-231 breast cancer cells. **María Guadalupe Martínez Hernández**, Rubí Araceli Viedma Rodríguez, Margarita Díaz Flores, Luis Arturo Baiza Gutman. Morfofisiología, FES-Iztacala, UNAM

M-34

Increased autophagic flux in A549 lung epithelial cells after tunicamycin treatment. **David Medina Perez**, Moisés Selman Lama, Annie Pardo Cemo, Cabrera Benítez Sandra. Facultad de Ciencias, UNAM

M-35

Omega-3 Fatty acids on Diabetic Pregnant Rats: Effects on Placental Mitochondrial Function and Fatty Acids Composition. **Ricardo Mejía Zepeda**, María del Consuelo Figueroa García, Francisco Alfredo Saavedra Molina, Christian Cortés Rojo, and Martín Palomar Morales. FES Iztacala - UNAM

M-36

Truncated receptor type II TGF- β (T β RII Δ cyt) decreases hepatic fibrosis and steatosis modulating gene expression of TGF- β , Col-1, PAI-1 and Cannabinoids receptors. **Mayra Guadalupe Mena Enriquez**, Ana Soledad Sandoval Rodríguez, Juan Armendáriz Borunda. Ciencias de la Salud. Centro Universitario de Tonalá. Universidad de Guadalajara

M-37

Antioxidant effect of Stevia rebaudiana Bertoni in heart of rats feed with a hyper-glycemic/hyper-calorie diet. **Diana Moroni González**, Patricia Aguilar Alonso, Eduardo Miguel Brambila Colombes, Alfonso Daniel Díaz Fonseca, Samuel Treviño Mora. Laboratorio de Investigaciones Químico Clínicas, BUAP

M-38

Role of R-Spondin2 in the pathogenesis of idiopathic pulmonary fibrosis. **Adrian Munguía Reyes**, Remedios Ramírez Rangel, Criselda Mendoza Milla, Annie Pardo Cemo, Moisés Selman Lama. Instituto Nacional de Enfermedades Respiratorias Ismael Cosío Villegas

M-39

Transforming Growth Factor beta induces down regulation of DNA methyltransferase 1 and up regulation of ten-eleven-translocation 3 in human lung fibroblasts. **Miguel Negreros**, James Hagood, Celia Espinoza, Moisés Selman, and Annie Pardo. Facultad de Ciencias, UNAM

M-40

Effects of avocado oil on lipid profile, kidney mitochondrial function and protein uriaain type 2diabetes. **Omar Ortiz Avila**, María del Consuelo Figueroa García, Claudia Isabel García Berumen, Elizabeth Calderón Cortés, Alfredo Saavedra Molina, Christian Cortés Rojo. IIQB. Universidad Michoacana

M-41

Generation of an apta sensorbased on gold nanoparticles for detection of HPV-16 L1 VLPs. **Giovanni Palomino-Vizcaino**, Ana G Leija-Montoya, María L Benitez-Hess, Luis M Álvarez-Salas. Terapia Génica, Departamento de Biología Molecular, CINVESTAV – IPN

M-42

Cecropine, an antibacterian peptide and its effects over heart function. **Natalia Pavón**, Juan Carlos Torres-Narváez, Humberto Lanz Mendoza, Rebeca López-Marure, Mabel Buelna Chontal, Leonardo del Valle Mondragón, Francisco Javier Roldán Gómez. Instituto Nacional de Cardiología Ignacio Chávez

M-43

Relevance of Notchcell signaling pathway in cellular subpopulation with ALDH high activity enriched in cancer stem cells derived from cervical cell lines. **Pérez Díaz Leny Palma**, Alejandro García Carrancá, Elizabeth Ortiz Sánchez, Instituto Nacional de Cancerología

M-44

S-allylcysteine in diabetic nephropathy in rat. **María Antonieta Ramos Vega**, Perla Deyanira Maldonado Jiménez, Diana Barrera Oviedo. Facultad de Medicina, UNAM

M-45

Evaluation of the cardioprotective effect of Citicolione and Erythropoietin against Doxorubicin-induced cell death. **Reséndiz Castillo**, Luis J Rocha Zavaleta, Leticia. Instituto de Investigaciones Biomédicas. UNAM

M-46

Characterization of an intrauterine microenvironment conditioned by choriodeciduals cells around the onset of human labor. **Yasser E Reyes-Martínez**, Marisol Castillo-Castrejón, Yirham Echegoyen-Alvárez, Felipe Vadillo-Ortega, Carmen Canchola-Sotelo, Noemí Meraz-Cruz. Vinculación Científica Facultad de Medicina, UNAM /INMEGEN

M-47

Screening of the antibacterial, cytotoxicity, antioxidant activities and chemical composition of *Plumbago auriculata* roots. **Patricia Rios-Chavez**, Romel González Hernández, Enrique Ramírez -Chávez and Jorge Molina-Torres. Facultad de Biología, Universidad Michoacana

MICROBIOLOGY AND PARASITOLOGY**MP-23**

Prevalence of virulence markers *cagA* and *vacA* in Mexican patients infected with *Helicobacter pylori*. **Sigfrid García Moreno Muito**, Juan Carlos Bravata Alcantara, José Bonilla Delgado, Mónica Sierra Martínez and Enoc Mariano Cortés Malagón. Research Unit, Hospital Juárez de México

MP-24

Frequency of *Entamoeba gingivalis* in two groups of Mexican patients. **Gabriela García Pérez**, Fernando Ramos Reyes, Lilian Hernández Mendoza, Antonio Fernández López, Juan Maldonado Martínez, Josué Adad Ronquillo Gómez, Jorge Yañez Ponce de León, Paul Gaytán Colin. Departamento de Microbiología y Parasitología, Facultad de Medicina, UNAM

MP-25

Study of the interaction of SlfF and FlgJ, proteins that are involved in the biogenesis of the type 1 flagellar system of *Rhodobacter sphaeroides*. **Mariela García-Ramos**, Javier de la Mora, Teresa Ballado, Laura Camarena and Georges Dreyfus. Instituto de Fisiología Celular, UNAM

MP-26

Detection, mapping and phylo genetic analysis of flavor hemoglobins from the genome of rhizobial bacteria. **Reinier Gesto Borroto**, Elena I Villarreal Moguel, Raúl Arredondo Peter. Facultad de Ciencias, UAEM

MP-27

Characterization of Tg Articulín in *Toxoplasma gondii* tachyzoites. **Carmen T Gómez de León**, Sirenia González, Mónica Mondragón, Ricardo Mondragón Flores. Bioquímica. CINVESTAV – IPN

MP-28

Phylogenetic profile of the carotenoid biosynthesis across sequenced bacterial genomes. **Oscar Francisco González Gutiérrez** and Luis David Alcaraz Peraza. Ecología de la Biodiversidad. Instituto de Ecología. UNAM

MP-29

STIM1 and Orai1 Identification of *Entamoeba histolytica*. Alejandra Arreola Martínez, **Omar González Maldonado**, Mario Alberto Rodríguez Rodríguez, Carlos Vázquez Calzada, Diana Jiménez López, Isela Pérez Galarza, Andrés Monsalvo Villagómez, Guadalupe Salazar Enríquez, Ana Laura Cano Martínez y Andrés Salas Casas. Universidad Politécnica de Pachuca

MP-30

Understanding copper uptake in Gram-negative bacteria. **Antonio González Sánchez**, Ciro Alberto Cubillas Ramírez, Araceli Dávalos and Alejandro García de los Santos. Centro de Ciencias Genómicas, UNAM

MP-31

Proteins with protease activity are secreted by *Leishmania mexicana*, *Entamoeba histolytica* and *Trypanosoma cruzi*. **Augusto González-Canto**, Lorena Sánchez-García, Magdalena Aguirre-García, Alma R Escalona-Montaño, Arturo A Wilkins-Rodríguez, Laila Gutiérrez-Kobeh Rosario López-Vancell, Bertha Espinoza, Ignacio Martínez, Adriana Rodríguez-Guzmán, Mario Nequíz-Avendaño and Ruy Pérez-Tamayo. Medicina Experimental, Facultad de Medicina, UNAM

MP-32

Functional Analysis of *MNN4*-Like family of *Candida albicans*. **Roberto de J. González-Hernández** and Héctor M Mora-Montes. Biología, DCNyE. Universidad de Guanajuato

MP-33

Identification of nitrogen-fixing bacteria associated with the rhizosphere of different varieties of *Zea mays*. **Jairo Eder Guerra-Camacho**, Bibiana Ríos-Galicia, Catalina Villagómez-Garfias, Ramón Ignacio Arteaga-Garibay and César Hugo Hernández-Rodríguez. Departamento de Microbiología, Escuela Nacional de Ciencias Biológicas. IPN

MP-34

Effect of a semi-purified extract of cruzipain on endocytic capacity and cytokine expression in murine macrophage. **Lilian Hernández Mendoza**, María Guadalupe Maldonado Mercado, José Luis Molinari Soriano, Gabriela García Pérez, Fernando Ramos Reyes, Rocío Gabriela Tirado Mendoza, Sandra Solano Gálvez, Natalia Copitin, Ivanova Niconova, Enrique Meléndez Herrada, Araceli González Esteban and Patricia Tato Zaldivar. Facultad de Medicina, UNAM

MP-35

Antibiotic Resistance to First and Second Choice Antibiotics of *E. coli* isolated from Mexican Population with Urinary Tract Infection and its Relationship to Serotype and Phylogenetic Group. **Marco Antonio Ibarra - Valencia**, Margarita María De La Paz Arenas-Hernández, Armando Navarro-Ocaña, Abraham Medrano López, Rosa Del C Rocha Gracia, Ygnacio Martínez-Laguna. Facultad de Medicina, BUAP

MP-36

Study of the antimicrobial activity of the venom from honeybee *Apis mellifera*. **Georgina Ivette López Cortés**, María de Lourdes Delgado Aceves, Cintia Gutiérrez Villegas, Bruno Casciaro, Antonio Di Grazia, Víctor Rubén Padilla Salas, Citlalli Arlae Rojas López, Rafael Ordaz Briseño, María Luisa Mangoni, Alfonso Enrique Islas Rodríguez. Cellular and Molecular Biology. University of Guadalajara

MP-37

The diguanylate cyclase DgcA encoding by *dgcA* has role in biofilm formation in *Azospirillum brasilense*. **Lilia I López-Lara**, Alberto Ramírez-Mata, Angelica Romero-Osorio, Felipe J Castañeda and Beatriz E Baca. Instituto de Ciencias. BUAP

MP-38

Motility in *Klebsiella pneumoniae* mediated by flagellum. **Patricia Lozano Zarain**, Rosa del Carmen Rocha Gracia, Libia Adriana León Izurieta, Nataly Olivar Espinosa, Carmen Torres, Sirenia González Pozos, Zita Gutiérrez Cazares, Miguel Castañeda Lucio, Alejandro Carabarin Lima. Microbiología. Instituto de Ciencias. BUAP

MP-39

In silico design of a chimeric protein for a vaccine generated against urinary infections by Uropathogenic *Escherichia coli*. **Victor M. Luna Pineda**, Sara A. Ochoa Pérez, Zeus Saldaña Ahuatzi, Juan Xicohtencatl Cortes. Hospital Infantil de México Federico Gómez

MP-40

Characterization of new genes regulated by Hild in *Salmonella enterica* serovar Typhimurium. **Rubiceli Manzo Durán**, Aoife Colgan, José Luis Puente García, Jay CD Hinton, and Víctor Humberto Bustamante Santillán. Microbiología Molecular, Instituto de Biotecnología, UNAM

MP-41

Molecular characterization and Indole-3-acetic acid production of native *Azospirillum* strains from diverse origin. **Cynthia Marcos Jiménez**, Claudia A. Vásquez Hernández, Saúl Jijón Moreno, María L. Xiqui Vázquez and Beatriz E. Baca. Centro de Investigaciones en Ciencias Microbiológicas, BUAP

MP-42

Role and subcellular localization of EGL-1 and EGL-, two putative GPI anchored cell wall β (1-3) endoglucanases, in *Neurospora crassa*. **Leonora Martínez-Núñez** and Meritxell Riquelme. Department of Microbiology, Center for Scientific Research and Higher Education of Ensenada

MP-43

Taxonomic diversity of the carnivorous plant microbiome *Utricularia gibba*. **Shamayim Martínez-Sánchez**, Enrique Ibarra-Laclette, Luis Herrera-Estrella and Luis David Alcaraz. Departamento de Ecología de la Biodiversidad. Instituto de Ecología, UNAM

MP-44

Mannheimia haemolytica expresses an OmpP2-like amyloid protein. **Juan Fernando Montes García**, Sergio Vaca, Francisco Aguilar, Tomas Villamar, Candelario Vázquez y Erasmo Negrete Abascal. Facultad de Estudios Superiores Iztacala UNAM

MP-45

Enhancement of insecticidal activity of *Bacillus thuringiensis* Cry1Ab toxin against *Spodoptera frugiperda* (*Lepidoptera: Noctuidae*) through alanine substitution in domain III. **Josué Ocelotl Oviedo**, Jorge Sánchez Quintana, Guadalupe Peña Chora, Alejandra Bravo de la Parra, Mario Soberón Chávez, Isabel Gómez Gómez. Instituto de Biotecnología /UNAM

NEUROSCIENCE AND NEUROBIOLOGY**N-1**

Evaluation of the glutathione system associated to enzymes in brain ischaemia. **Patricia Aguilar Alonso**, Norma Judith Cruz Ortega, Alfonso Daniel Díaz Fonseca, Eduardo Miguel Brambila Colombres, Addí Rhode Navarro Cruz, Raúl Ávila Sosa Sánchez, Gonzalo Flores, Samuel Treviño Mora. Facultad de Ciencias Químicas, BUAP

N-2

Assessment of major depressive disorder model in rat. **Venus Berenice Aparicio Díaz**, Glenda Gladis Cazalez Linares, Eduardo Miguel Brambila Colombres, Gonzalo Flores, Héctor Armando Rubio Zapata. Irma Herrera Camacho, Israel Camacho Abrego, Patricia Aguilar Alonso. Facultad de Ciencias Químicas, BUAP

N-3

The mitochondria: an integrator of damage signals that result in neurodegeneration in an Alzheimer's disease model. **Tonali Blanco-Ayala**, Gustavo Pedraza-Alva and Leonor Pérez-Martínez. Medicina Molecular y Bioprocesos, Instituto de Biotecnología, UNAM

N-4

Short-term high-fat-and-fructose feeding produces hippocampal insulin resistance, dendrite and spine reduction, tau and MAP-2 alterations, synaptic mitochondrial dysfunction and neuro inflammation. **Erika Calvo-Ochoa**, Karina Hernández-Ortega, Patricia Ferrera, Ricardo Quiroz-Báez, Clorinda Arias. Medicina Genómica y Toxicología Ambiental, Instituto de Investigaciones Biomédicas, UNAM

N-5

Effect of Ketone bodies on glucose deprivation-induced autophagy in rat cultured cortical neurons. **Lucy Camberos**, Cristian Gerónimo, Teresa Montiel and Lourdes Massieu. Instituto de Fisiología Celular, UNAM

N-6

Conjugation of Sema3C with a biodegradable hydrogel causes enhanced axonal growth of dopamine neurons. **Oscar Alejandro Carballo Molina**, Iván Velasco Velázquez. División de Neurociencias, Instituto de Fisiología Celular, UNAM

N-7

Standardizing a Method Based on qPCR to Determine the Loss of Dopaminergic Neurons in *Drosophila melanogaster*. **Luis Ángel Carvajal Oliveros**, René Hernández Vargas, Yoandy Ferrer Marcelo, Verónica Narváez Padilla, Enrique Alejandro Reynaud Garza. Genética del Desarrollo y Fisiología Molecular, Instituto de Biotecnología, UNAM

N-8

Expression profile of cytokine mRNAs in the retina of Fyn^{-/-} mice: Possible involvement of Fyn during the process of reactive gliosis. **Marbella Chávez-S**, Claudia González-E, and Mónica Lamas-G. Pharmacobiology. Department, CINVESTAV - IPN

N-9

Análisis de los mecanismos de daño del 27-hidroxicolesterol: Implicaciones para la Enfermedad de Alzheimer. **Hélène Clément Montoya**, Aydeé Mendoza Oliva, Patricia Ferrera Boza, Clorinda Arias Álvarez. Medicina Genómica y Toxicología Ambiental, Instituto de Investigaciones Biomédicas, UNAM

N-10

KChIP3 mediates cholinergic SN56 neuronal cell death induced by oxidative stress. **Javier Cortés-Mendoza**, Eunice Gezabel Zuñiga Hinojosa, Gustavo Pedraza-Alva & Leonor Pérez-Martínez. Departamento de Medicina Molecular y Bioprocesos, Instituto de Biotecnología, UNAM

N-11

Sensibilidad diferencial de células de neuroblastoma humano a los anti-inflamatorios no esteroideos y al péptido β -amiloide: efectos sobre la sobrevivencia y expresión de ciclina D. **Patricia Ferrera** y Clorinda Arias. Instituto de Investigaciones Biomédicas. UNAM

N-12

Expression of connexins 32, 36 and 43 in rathippocampus during seizures induced by 4-aminopyridine. **Xóchitl Natalia Flores-Ponce**, Anne Santerre, Laura Guadalupe Medina-Ceja. Laboratorio de Neurofisiología y Neuroquímica, Departamento de Biología Celular y Molecular, CUCBA, U. de G.

N-13

The role of glutathione and the reactive oxygen species in postnatal development of rat cerebellar cortex. **Brenda Vianey García Hernández**, Erick Ariel Martínez Chávez. Instituto de Fisiología Celular, UNAM

N-14

Searching new compounds with better selectivity into β A in α -helix than β -sheet conformation under *In silico* studies for targeting the Alzheimer disease. **Iohanán Daniel GarcíaMarín**, Maricarmen Hernández Rodríguez, José Correa-Basurto, Martha Cecilia Rosales-Hernández. Escuela Superior de Medicina, IPN

N-15

Early activation of autophagy during glucose deprivation contributes to cortical neuronal death. **Cristian Gerónimo-Olvera** & Lourdes Massieu. Instituto de Fisiología Celular, UNAM

N-16

Role of the NADPH oxidases during the excitotoxic damage in the striatum in mice. **Diego Rolando Hernández Espinosa**, Lourdes Massieu Trigo, Edgar Zenteno Galindo, Julio Morán Andrade. Neurodesarrollo y Fisiología, Instituto de Fisiología Celular, UNAM

GENETIC REGULATION & EPIGENETIC**GR-46**

Differential effect of the members of mir-34 family on siha cell proliferation. **Jesús Adrián López** and Angelica Judith Granados López. Laboratorio de microRNAs. Unidad Académica de Ciencias Biológicas, Universidad Autónoma de Zacatecas

GR-47

Transcriptional study of non-coding small RNAs genes *rsm Z1, Z2, Z3, Z4, Z5, Z6, Z7, Z8* and *Y* in *Azotobacter vinelandii*. **López-Pliego L**, Castañeda Lucio-M. Centro en Ciencias Microbiológicas, BUAP

GR-48

Down-regulation of *Phaseous vulgaris PvRbohD* gene during the symbiotic interaction with rhizobia. **José Luis López-Angeles**, Manoj Kumar Arthikala, Noreide Nava, Jesús Montiel and Carmen Quinto. Biología Molecular de Plantas, Instituto de Biotecnología, UNAM

GR-49

Transcriptomic analysis of photoconidiation process in *Trichoderma atroviride*. **López-Hernández** José Fabricio and Herrera-Estrella Alfredo Heriberto. LANGEBIO. CINVESTAV – IPN Irapuato

GR-50

Pirfenidone down regulates inflammatory mediators and modulates endo cannabinoids receptors in non-alcoholic steatohepatitis induced by highfat/carbohydrate diet. **José Macías-Barragán**, José Vera-Cruz, Krista Rombouts, Margarita Montoya-Buelna, David López-de-la-Mora, Cibeles Sánchez-Roque, Jesús García-Bañuelos, Massimo Pinzani, Juan Armendáriz-Borunda. Departamento de Ciencias Naturales y Exactas, Universidad de Guadalajara

GR-51

Effect of the different sizes of ds RNA in the efficiency of NADH oxidase gene silencing in *Giardia lamblia*. **Jaime Marcial-Quino**, Ignacio De la Mora-De la Mora, Adriana Castillo-Villanueva, Sara Méndez-Cruz, Saúl Gómez-Manzo, Itzhel García-Torres, Sergio Enríquez-Flores, Angélica Torres-Arroyo, América Vanoye-Carlo, Gabriel López-Velázquez, Jesús Oria-Hernández, Horacio Reyes-Vivas. Instituto Nacional de Pediatría

GR-52

Regulatory divergence in paralogous genes ALT1 and ALT2 in *Saccharomyces cerevisiae*. **Dariel Márquez Gutiérrez**, James González, José Carlos Campero and M Alicia González Manjarrez. Instituto de Fisiología Celular, UNAM

GR-53

Functional characterization of the *Arabidopsis thaliana* WIP2 gene in the meristematic regions of vegetative tissues. David Díaz Ramírez, Humberto Herrera Ubaldo, Daniela Ramos Cruz, Víctor Zúñiga Mayo, Vicente Balanza, Pieter Ouwerkerk, Martin Sagasser, Cristina Ferrándiz, Stefan de Folter, **Nayelli Marsch Martínez**. Biotecnología y Bioquímica, CINVESTAV - IPN

GR-54

Tissular localization of transcripts and proteins induced by water deficit in *Arabidopsis thaliana*: group 4 LEA proteins. **Coral Martínez Martínez**, Yadira Olvera-Carrillo and Alejandra A. Covarrubias Robles. Biología Molecular de Plantas. Instituto de Biotecnología, UNAM

GR-55

Molecular characterization of TbZ5, a protein with multiple zinc-finger domains in *Trypanosoma brucei*. **María de Lourdes Mejía-Hernández**, Daniel E Vélez-Ramírez, Luis E Florencio-Martínez and Santiago Martínez-Calvillo. Biomedicina, FES Iztacala, UNAM

GR-56

Study of *Azotobacter vinelandii* small non-coding RNAs. **Giselda Mena Muñoz**, Liliana Lopez Pliego, Cinthia Nuñez López, Luis Ernesto Fuentes Ramírez y Miguel Castañeda Lucio, CICM-IC. BUAP

GR-57

Ethylene-auxin interaction modulates primary root growth and cell division in *Arabidopsis thaliana*. **Alejandro Méndez Bravo**, Miguel Martínez Trujillo, José López Bucio. Biología del Desarrollo Vegetal. IIQB. Universidad Michoacana

GR-58

Intronic circles as pre-mRNA splicing products in *Entamoeba histolytica*. **María Saraí Mendoza-Figueroa**, Elisa Azuara-Liceaga and Jesús Valdés. CINVESTAV – IPN Zacatenco

GR-59

Effect of over-expression of the members of mir-34 family on siha cell proliferation. **Julieta Moreno Longoria**, Jesús Adrián López. Unidad Académica de ciencias Biológicas, Universidad Autónoma de Zacatecas “Francisco García Salinas”

GR-60

Population density regulates *Arabidopsis thaliana* growth and development through modulating auxin transport. **Edith Muñoz Parra**, Ramón Pelagio Flores, Javier Raya González, Randy Ortiz Castro, León Francisco Ruíz Herrera, José López Bucio. IIQB, Universidad Michoacana

GR-61

Actin depolymerizing factor is required during the early stages of the rhizobia-legume symbiosis. **Yolanda Ortega-Ortega**, David Jáuregui, Marco A Juárez-Verdayes, Xóchitl Alvarado, Olivia Santana and Carmen Quinto. Biología Molecular de Plantas, Instituto de Biotecnología, UNAM

GR-62

Gene expression profiling of DKK1 and patterns of methylation in osteoblast biology. **Alma Parra-Torres**, Diana García-Peralta, Karina Albarrán-Casildo, Nelly Patiño-Uriostegui, Rafael Velázquez-Cruz. Instituto Nacional de Medicina Genómica

GR-63

Merlin negative regulation by mir-146a promotes cell transformation. **Pedraza-Alva Gustavo**, Pérez-García Erick, López-Sevilla Yaxem, Meza-Sosa Karla, Camacho-Concha Nohemí and Pérez-Martínez Leonor. Medicina Molecular y Bioprocesos, Instituto de Biotecnología, UNAM

GR-64

In *Candida glabrata* Gln3 GATA factor is a nitrogen assimilation key regulator. **Francisco Javier Pérez de los Santos** and Lina Raquel Riego Ruiz. División de Biología Molecular, IPICYT

GR-65

Transcript profiling distinguishes complete treatment responders with locally advanced cervical cancer. **Carlos Pérez-Plasencia**, Jorge Fernández-Retana, Federico Lasa-Gonsebatt. Laboratorio de Genómica, UBIMED. FES Iztacala, UNAM

TOXICOLOGY**T-18**

Kinetics of toxicity of aluminum 3^+ and free radicals in evaluating (ATCC ® CCL-81™) Vero cells. **Ofelia Juárez-Carrillo**, Marcela Galar-Martínez, Amparo Celene Razo-Estrada, Ricardo Pérez-Pastén Borja. Toxicología Mecanística, Escuela Nacional de Ciencias Biológicas, IPN

T-19

Toxicological evaluation of ethanolic extract of *Justicia spicigera* in 30 days-treated Wistar rats. **Balderas-Plascencia S**, Alvarado-Sánchez, Hernández-Morales A, Del Toro-Herrera J, Hernández-Aguilar JA, León-Buitimea A. Unidad Académica Multidisciplinaria, UASLP

T-20

Evaluation of the Effect of Freeze Dried *Thalassia testudinum* in the cell Proliferation and Viability of Human Tumor Cell Lines. **Itzel Leyva-Bahena**, Elizabeth Estrada-Muñiz, Idania Rodeiro, Libia Vega Loyo. Toxicology. CINVESTAV-IPN

T-21

Evaluation of methyl parathion to determine LC_{50} bullfrog tadpole *Lithobates catesbeianus* (Shaw, 1802). **Laura Méndez-Alcántara**, Ofelia Juárez-Carrillo, Mario Cárdenas-León, Amparo Celene Razo-Estrada. Toxicología Acuática, Escuela Nacional de Ciencias Biológicas - IPN

T-22

Study of the metabolism effects of arsenic by expression of arsenic (+3 oxidation state)-methyltransferase in human bladder transfected cells (HTB-1) on cell cycle regulation. **Jeshua Donamis Molina Aguilar**, Araceli Hernández Zavala, José Efraín Garrido Guerrero. Escuela Superior de Medicina, IPN

T-23

Differential expression of drugs transporters associated with chemoresistance in childhood rhabdomyosarcoma: Comparison between tumoral and normal tissue. **Dora Molina-Ortiz**, Araceli Vences-Mejía, Rafael Camacho-Carranza, José González-Zamora, Rocío Cárdenas-Cardós, Jaime Shalkow-Klincovstein. Instituto Nacional de Pediatría

T-24

Effect of the biotransformation of arsenic on cell cycle regulation in human bladder cells. **Teresita Rocio Moore-Ambriz**, Pedro Chávez-Olmos, José Efraín Garrido Guerrero, Araceli Hernández-Zavala. Escuela Superior de Medicina, IPN

T-25

Bergamottin as an inhibitor of CYP1A during embryonic development in the chicken. **Diego Arturo Ornelas Ayala**, Jesús Javier Espinosa Aguirre, Jesús Chimal Monroy. Instituto de Investigaciones Biomédicas, UNAM

T-26

Gestational exposure to inorganic arsenic (iAs) modulates cysteine transport in mouse brain. **LA Ramos-Chávez**, CRR Rendón-López, P Petrosyan, & ME Gonsebatt. Instituto de Investigaciones Biomédicas, UNAM

T-27

Study of toxic effects of biotin pharmacological concentrations. **Leticia Riverón-Negrete**, Carolina Álvarez-Delgado, Cristina Fernández-Mejía. Biomedical Research Institute, National University of Mexico

T-28

Human and rat CYP1A1 enzyme inhibition by grapefruit juice compounds. **Rebeca Santes Palacios**, Antonio Romo-Mancillas, Rafael Camacho Carranza, Jesús Javier Espinosa Aguirre. Instituto de Investigaciones Biomédicas, UNAM

T-29

Effect of Metformin on the metabolic regulation of carbohydrates and lipids in Wistar rats chronically administered with Cd. **Victor Enrique Sarmiento Ortega**, Samuel Treviño Mora, Alfonso Daniel Díaz Fonseca, Patricia Aguilar Alonso, Eduardo Miguel Brambila Colombres. Facultad de Ciencias Químicas, BUAP

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Modulation of the GSH and Trx systems by arsenic in the mouse brain. **Irma Daniela Silva Adaya**, Lucio Antonio Ramos Chávez, Gabriel Gutiérrez Ospina, María E Gonsebatt. Instituto de Investigaciones Biomédicas. UNAM

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Venom of the centipede *Scolopendra polymorpha* causes muscular and nervous tissue alterations in mouse. **Judith Tabullo De Robles**, Lucero Valladares Cisneros, Juana Villeda Hernández, Francisca Fernández Valverde, Ma. Del Carmen Gutiérrez Villafuerte. CEIB. UAEM

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Evaluation of plasmatic concentrations of natriuretic peptides in children environmentally exposed to arsenic. **José M. Torres Arellano**, Guadalupe Aguilar Madrid, Laura Arreola-Mendoza, Ángel Barrera Hernández, Luz C Sánchez Peña, Citlalli Osorio Yáñez, Luz M Del Razo. Toxicología, CINVESTAV-IPN

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Systemic nerve growth factor modulates the transcription of amino acid transporters and glutathione synthesis in mouse striatum. **Valdovinos-Flores**, Cesar, Petrosyan Pavel y Gonsebatt Bonaparte María Eugenia. Instituto de Investigaciones Biomédicas, UNAM

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Cytotoxic effects and antimicrobial activity of Cuachalalate (*Amphipterygium adstringens*) extracts, prepared in a traditional way. **Janette Villarruel Muñoz**, Zaira López, Diana Solís Padilla, José Rico, Joel Salazar Flores and Peter Knauth. Centro Universitario de la Ciénega, UDG

SIGNAL TRANSDUCTION**ST-64**

Interferon Stimulated Gene 12 is a negative regulator of the Estrogen Receptor Alpha/Estradiol signaling. **Bibiana Ortega Domínguez**, Angeles C Tecalco Cruz, Marcela Sosa Garrocho and Alfonso León Del Río. Instituto de Investigaciones Biomédicas, UNAM

ST-65

Akt behavior in different tissues at early stages of an experimental model of renal carcinogenesis and effect of a tamarind seed extract. **Ignacio Pacheco-Bernal**, Francisco Aguilar-Alonso, José D Solano, Patricia Curiel-Muñiz, Telma Pariente-Pérez, Chabetty Vargas-Olvera, María Elena Ibarra-Rubio. Biología. Facultad de Química, UNAM

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The other side of the moon: H₂O₂ as a second messenger for adrenaline. **Enrique Piña Garza**, María Magdalena Vilchis Landeros, Raquel Guinzberg Perrsuquía, Disraeli Díaz-Guinzberg, Antonio Díaz-Cruz. Facultad de Medicina, UNAM

ST-67

Analysis of the damage to intestinal epithelial cells by purified cathepsin B like from *Giardia duodenalis* and its effect on signaling pathways that modulate intestinal epithelial homeostasis using the duodenal loop ligation model in gerbils (*Meriones unguiculatus*). **Rodrigo Quezada-Lázaro**, Yaremit Mora-Hernández, Rocio Fonseca-Liñán, Silvia Galindo-Gómez, Angélica Silva-Olivares, Mineko Shibayama, Porfirio Nava-Domínguez. Guadalupe Ortega-Pierres. CINVESTAV-IPN Zacatenco

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Identification of an arginine-phospho tyrosine based endoplasmic retention motif in a G-protein activated potassium channel. **Claudia Iveth Rangel-García**, Beatriz Díaz-Bello, Carolina Salvador, Laura Escobar. Facultad de Medicina, UNAM

ST-69

The proto-oncoprotein SnoN is downregulated by the antibiotics anisomycin and puromycin via proteasome. **Diana G Ríos-López**, Jacqueline Hernández-Damián, Angeles C Tecalco-Cruz, Genaro Vázquez-Victorio, Aleida Vázquez-Macías, Cassandre Caligaris, Marcela Sosa-Garrocho, Blas Flores-Pérez, Margarita Romero-Avila, Marina Macías-Silva. Instituto de Fisiología Celular, UNAM

ST-70

Study of the histidine protein kinase RpfC2 in *Azotobacter vinelandii*. **Rodríguez Antonio Ana Laura**, Castañeda Lucio Miguel. Instituto de Ciencias, BUAP

ST-71

HER3/HER2 heterodimer activates PI3K but not the Akt signaling pathway in cervical cancer cells. **Octavio Zerecero-Carreón**, Arturo Valle-Mendiola, Benny Weiss-Steider, Isabel Soto-Cruz. Unidad de Investigación en Diferenciación Celular y Cáncer. FES Zaragoza, UNAM

ST-72

Phosphorylation and internalization of short splicing variant of the omega 3 fatty acid sensor, GPR120. **María Teresa Romero-Avila**, Omar Benoni Sanchez-Reyes, Jean A. Castillo-Badillo, Yoshinori Takei, Akira Hirasawa, Gozoh Tsujimoto, Rafael Villalobos-Molina and J. Adolfo García-Sáinz. Instituto de Fisiología Celular, UNAM

ST-73

Adipocytes show alterations in the signaling pathways that control glucose transport in a model of metabolic syndrome. **Jorge Rosas-García J**, Karla Carvajal-Aguilera KG. Nutrición experimental, Instituto Nacional de Pediatría

ST-74

Toll-like receptor 4 activation promotes epithelial-mesenchymal transition and progression in breast cancer. **Karina Ruiseco-Flores**, Eduardo Monjaraz-Guzman. Instituto de Fisiología, BUAP

ST-75

Characterization of signaling pathways that allow to mast cells to respond against bacterial compounds. **Elizabeth Sánchez-Miranda**, Alfredo Ibarra-Sánchez, Damaris A. Hernández- Sánchez, Ulrich Blank, Marina Macías-Silva and Claudia González-Espinosa. Instituto de Fisiología Celular, UNAM

ST-76

Role of Wnt signaling into cellular subpopulation with increased ALDH activity from cervical cell lines. **Miguel Ángel Sarabia Sánchez**, Alejandro García Carrancá and Elizabeth Ortiz Sánchez, Instituto Nacional de Cancerología

ST-77

GPR40 phosphorylation is induced by free fatty acids and activation of Protein Kinase C. **Carla Sosa-Alvarado**, Omar B Sánchez-Reyes, M Teresa Romero-Ávila, Yoshinori Takei, Akira Hirasawa, Gozoh Tsujimoto, J Adolfo García-Sáinz. Instituto de Fisiología Celular, UNAM

ST-78

The expression of progesterone induced blocking factor is hormonally regulated and it increases the growth of human astrocytoma cells through IL-4R/STAT6 pathway. **Paulina Valadez-Cosmes**, Carolina Arellano-Jiménez, Mónica López-Sánchez, Aliesha González-Arenas and Ignacio Camacho-Arroyo. Biología, Facultad de Química, UNAM

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Evaluation of heat shock proteins in human gastric adenocarcinoma cells that overexpress claudins. **Priscila J. Torres Granados**, Rosalba Pacheco Bautista, Luis F Montaña Estrada, Erika P Rendón Huerta. Biología Celular y Tisular, Facultad de Medicina, UNAM

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Identification of proteins involved in signaling pathways induced protein from *Bacillus thuringiensis* Cry1Ac activation in RAW 264.7 macrophages. **Marilu Torres Martínez**, Ana Lilia García Hernández, Nestor Rubio Infante y Leticia Moreno Fierros. UBIMED. FES Iztacala. UNAM

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Retinol Binding Protein type 4 (RBP4) induced insulin resistance in skeletal muscle cells of rats (L6), through the reduction in gene expression of elements of the signaling pathway activated by insulin. **Rafael Torres Montiel**, Antonio Hernández Ortiz, Eduardo Monjaraz Guzmán. Neuroendocrinología. Instituto de Fisiología. BUAP

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Study of pH changes during human sperm capacitation. **Paulina Torres- Rodríguez**, Mariano G Buffone, Lis del C Puga Molina, Alberto Darszon, Claudia L Treviño Santa Cruz. Instituto de Biotecnología. UNAM

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Claudins -6 and -9 regulate the activation of MMP-2 and MMP-9 in human gastric adenocarcinoma cells. **Ana C Torres-Martínez**, Luis F Montaña-Estrada, Erika P Rendón-Huerta. Biología Celular y Tisular Facultad de Medicina, UNAM

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Real time monitoring of the acrosomal reaction in human sperm. **Esperanza Mata Martínez**, Claudia Sánchez-Cárdenas, Alberto Darszon y Claudia L Treviño. Instituto de Biotecnología-UNAM

ST-85

Participation of ERK1/2, JNK and P38 in the formation of benzo[a]pireno metabolites in BEAS-2B cells. **Gerardo Vázquez Gómez**, Leticia Rocha Zavaleta, Miriam Rodríguez Sosa, Julieta Rubio Lightbourn. Instituto de Investigaciones Biomédicas. UNAM

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The presence of proinflammatory cytokines exacerbates the proliferative and migratory capacity of breast cancer cells. **Montserrat Vázquez Rojas**, Eduardo Monjaraz Guzmán. Instituto de Fisiología, BUAP

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Leptin increase migratory activity of MDA-MB-231 breast cancer cells through voltage gated sodium channels overexpression and Na⁺/H⁺ exchanger. **Venancio-García E**, Monjaraz-Guzman E. Instituto de Fisiología. BUAP

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Regulation of ribosome biogenesis in maize embryonic axes during germination. **Juan Manuel Villa Hernández**, Tzvetanka Dimitrova Dinkova, Estela Sánchez de Jiménez, Fernando Rivera Cabrera, Fernando Díaz de León Sánchez, Pérez Flores Laura Josefina. Ciencias de la Salud, UAM

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Leptin induces epithelial-mesenchymal transition in a FAK-ERK dependent pathway in mammary non-tumorigenic cells MCF10A. **José Alfredo Villanueva Duque**, Eduardo Castañeda Saucedo, Mercedes Calixto Galvez, Carlos Ortuño Pineda, Eugenia Flores Alfaro, Napoleón Navarro Tito. Unidad Académica de Ciencias Químico Biológicas. Universidad Autónoma de Guerrero

ST-90

Molecular characterization of the Receptor for Activated C Kinase 1 (RACK1) in the jellyfish *Cassiopea xamachana*. **Patricia Cabrales Arellano**, Tania Islas Flores, Claudia Morera Román and Marco A Villanueva Méndez. Instituto de Ciencias del Mar y Limnología, UNAM

ST-91

Leptin induces cell migration in an EGFR transactivation-dependent pathway in MDA-MB-231 breast cancer cells. **Bernabé Visoso Torres**, Juan C Juárez Cruz, Eduardo Castañeda Saucedo, Sócrates Villegas Comonfort, Daniel Hernández Sotelo, Napoleón Navarro Tito. Unidad Académica de Ciencias Químico Biológicas. Universidad Autónoma de Guerrero

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Shh, Wnt and Notch pathways activation in acute lymphoblastic leukemia and their correlation to proliferative rate and chemoresistance. **Zárraga Vargas Laura**, Collí Magaña Dianelly, Acevedo Fernández Juan José, González Nava Gabriela, Chávez Carreño Adriana Santa-Olalla Tapia Jesús. Facultad de Medicina. UAEM

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Kinetic mechanism of thioredoxin-glutathione reductase from *Taenia crassiceps*. **Juan L Rendón**, Alberto Guevara-Flores, Oscar Flores-Herrera y Juan P Pardo. Bioquímica, Facultad de Medicina, UNAM

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Stability analysis of the perchloric acid-soluble protein (Tv-PSP) from *Trichomonas vaginalis*. **Alma Villalobos-Osnaya**, Laura Itzel Quintas-Granados, Laura Isabel Vazquez-Carrillo, María Elizabeth Alvarez-Sanchez. Universidad Autónoma de la Ciudad de México

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Plant proteasomes. **Daniel Aristizábal**, Viridiana Rivas, y Fernando Lledías. Biología Molecular de Plantas. Instituto de Biotecnología, UNAM

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High-performance planar chromatography (HPTLC) and low temperature plasma ionization mass spectrometry (LTP-MS) for the analysis of bioactive compounds in guava fruit (*Psidium guajava*). **Fabián Heriberto Rivera Chávez**, Jorge Molina Torres, Robert Winkler. Bioquímica y Biotecnología. CINVESTAV - IPN - Unidad Irapuato

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Effect of omega fatty acids (3, 6, or 9) against diabetes. **Mónica Rivera Valencia**, Ricardo Mejía Zepeda. Facultad de Estudios Superiores Iztacala, UNAM

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Contribution of tryptophan residues on the Human Gamma D-Crystallin stability: Real Time NMR folding study. **Lina Rivillas-Acevedo**, Jonathan King, Carlos Amero. Lab. RMN. Centro de Investigaciones Químicas, UAEM

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Relevant aminoacids for the differences in reactivation of the triosephosphate isomerases from *Trypanosoma brucei* and *T. cruzi*. **Mónica Rodríguez Bolaños**, Nallely Cabrera González and Ruy Pérez Montfort. Bioquímica y Biología Estructural. Instituto de Fisiología Celular, UNAM

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Expresion de peptido amiloide β en los vasos de las leptomeninges cerebrales en individuos con enfermedad de Alzheimer y su relación con el genotipo ApoE. **Emma Rodríguez Maldonado**, Chera L Maarouf, Ian D Daugs, Alex E Roher. Instituto Nacional de Cardiología "Ignacio Chávez"

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Increase in pH causes conformational changes in laccase from bacteria *Thermus thermophilus* producing loss in activity. **Claudia Rodríguez-Almazán**, Edith Flores Hernández and Enrique Rudiño Piñera. Medicina Molecular y Bioprocesos, Instituto de Biotecnología, UNAM

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Detection of the genes which encode to the ICp55 peptidase, methionine aminopeptidase 1 and methionine aminopeptidase 2 in the yeast *Schizosaccharomyces pombe*. **Patricia Leany Segundo Ibañez**, Xadeni Burgos Gamez, Lourdes Millán Pérez Peña, Irma Herrera Camacho, Nora Hilda Rosas Murrieta. Bioquímica y Biología Molecular, CQ-IC. BUAP

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Cytochrome C oxidase Cox2 subunit expression from the nucleus and its import into yeast mitochondria. **Diana Rubalcava Gracia Medrano**, Xochitl Pérez-Martínez and Diego González Halphen. Instituto de Fisiología Celular, UNAM

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Expression and isotopic labelling of sea anemone toxin Bcs Tx1. **Jessica N Villegas Moreno**, Carlos Amero Tello. Centro de Investigaciones Químicas, UAEM

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Aluminum induces low phosphate adaptive responses and modulates primary and lateral root growth by differentially affecting auxin signaling in *Arabidopsis* seedlings. **León Francisco Ruíz Herrera** and José López Bucio. IIQB Universidad Michoacana de San Nicolás de Hidalgo

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Respiratory complex and supercomplexes arrangement of mitochondriopathy primary skin fibroblasts cultures. **Karina Olivia Salvador Severo**, Diana Lashidua Fernández Coto, Edgar Tena-Sanabria, Carlos Castañeda-Reséndiz, Martha Elisa Vázquez-Memije, Juan Fernando Minauro Sanmiguel. UIM Genética Humana. Hospital de Pediatría CMN S XXI IMSS

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Characterization of proteolytic phenomenon in the starch binding domain (SBD) of the α -amylase of *Lactobacillus amylovorus*. **Zaira Esmeralda Sánchez Cuapio**, Alejandra Hernández Santoyo, Sergio Sánchez Esquivel & Romina Rodríguez-Sanoja. Instituto de Investigaciones Biomédicas, UNAM

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Role of amino acid F763 in the function of *Saccharomyces cerevisiae* mitochondrial polymerase *MIP1*. **Dulce María Vazquez-Zavala**, Diana Fabiola Díaz-Jiménez and Luis Gabriel Brieba de Castro. DCNyE, Universidad de Guanajuato

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Protein-ligand interactions to understand the role of the mutations in the Shwachman-Diamond Syndrome. **Eugenio de la Mora**, Abril Gijbers Alejandre, Adrián García Márquez, Alfonso Méndez Godoy, Nancy Marcial Bazaldúa, y Nuria Sánchez Puig. Instituto de Química, UNAM

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High pH and salt affects growth and energetic metabolism in *Debaryomyces hansenii*. **Norma Silvia Sánchez Sánchez**, Martha Calahorra Fuertes y Antonio Peña Díaz. Departamento de Genética Molecular. Instituto de Fisiología Celular. UNAM

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Characterization of the hydrophobic subunits of the peripheral arm of the ATP synthase from the colorless alga *Polytomella* sp. **Lorenzo Sánchez Vásquez**, Alejandra Jiménez Suárez, Héctor Miranda Astudillo, Francisco Javier de la Mora Bravo, Georges Dreyfus y Diego González Halphen. Genética Molecular, Instituto de Fisiología Celular UNAM

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Structural Contributions to the Thermal Adaptation of the TATA-Binding Protein. **José Ángel Santiago Terrones**, Nina Pastor Colón. Facultad de Ciencias, UAEM

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Heterologous Expression of an Immunogenic Peptide of *Helicobacter pylori*. Vacuolating Cytotoxin A. **Sauceda Arellano E**, Hernández Márquez E, Flores-Luna L, Sánchez Castillo J, Ayala Aguilar G. Desarrollo Biotecnológico. CISEI. Instituto Nacional de Salud Pública

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Analysis of changes in the transcription of genes involved in autophagy and apoptosis in aged cells of *Schizosaccharomyces pombe*. **Patricia Leany Segundo Ibañez**, Guadalupe Rojas Sánchez, Juan Carlos Benitez Serrano, Diana Lancho Zahuantitla, Irma Herrera Camacho, Nora Hilda Rosas Murrieta. Bioquímica y Biología Molecular, CQ-IC. Microbiología. Fac. Ciencias Químicas. BUAP

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Interaction between the receptor for advanced glycation end products (RAGE) domains and quinolic acid (QUIN). **Iris N Serratos**, Nina Pastor, Pilar Castellanos, César Millán-Pacheco, Ruy Pérez-Montfort, Nallely Cabrera, Francisco Reyes-Espinosa, Ambar López-Macay, Karina Martínez, Laura Castañeda, Ermilo Haas Dzib, Alberto López, Ponciano García-Gutiérrez y Abel Santamaria. Departamento de Química, UAM-I

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Advances in protein-protein interface design: grafting, docking and *de novo* approaches. **Daniel-Adriano Silva**, Alex Ford, David La, William Sheffler, Lei Shi, Shawn Yu, Michelle Scalley-Kim and David Baker. University of Washington

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Isolation and characterization of bioactive peptides from conditioned media by vegetal cells of various species. **Carmen Nayeli Soto Vargas**. Facultad de Química, UNAM

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Canine Tracheal Cartilage Cryopreservation: Freezing Injury is not related to Caspase-3 Expression. **Avelina Sotres-Vega**, Jaime Villalba-Caloca, Isabel Guadarrama-Sánchez, José Luis Torre-Jaime, Jazmín Azareel García-Montes, Miguel Gaxiola-Gaxiola, J Alfredo Santibañez-Salgado, Carlos Ramos-Abraham, Ana M Rosales-Torres, L Felipe Jiménez-García. Lung Transplantation Research Unit. National Institute of Respiratory Diseases / UAMX

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Effect of the proteic fraction G10P1.7.57 from the habanero chili (*Capsicum chinense* Jacq.) on growth of the tumoral cell lines Hep-2, SiHa, PC-3, and VERO. **José Aarón Tamayo-Sansores**, Ligia G. Brito-Argaez y Rosa E. Moo-Puc, Andrés H. Uc-Cachón, Ignacio Islas Flores. Unidad de Bioquímica y Biología Molecular de Plantas. CICY

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Search S6 ribosomal protein not associated with ribosomes in nuclei of *Saccharomyces cerevisiae*. **Reynaldo Tiburcio-Felix**, Arnulfo Bautista-Santos, Josue Romero, Arturo Ortega-Soto, Bulmaro Cisneros-Vega, Samuel Zinker-Ruzal. Genética y Biología Molecular. CINVESTAV-IPN

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In vitro import of the cytochrome C oxidase COXIII subunit in *Polytomella* sp. mitochondria. **Miriam Vázquez-Acevedo**, Diana Rubalcava Gracia Medrano, Diego González-Halphen. Departamento de Genética Molecular, Instituto de Fisiología Celular, UNAM.

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Native electrophoresis studies of different aggregation states of triosephosphate isomerase. **Paola Toledo Ibelles**, Edgar J Pérez Castañeda, Mónica Rodríguez Bolaños, Alejandra Jiménez Suárez, Héctor V Miranda Astudillo, Diego González Halphen, Ruy Pérez Montfort. Instituto de Fisiología Celular, UNAM

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NaTrxh: its possible role in the cell-cell interaction that lead to pollen rejection in *Nicotiana*. **María Daniela Torres Rodríguez** y Felipe Cruz García. Departamento de Bioquímica. Facultad de Química, UNAM

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In vitro evaluation of antioxidant activity of essential oil of *Satureja macrostema*. **Rafael Torres-Martínez**, Yolanda García-Rodríguez, Alejandra Hernández-García, Patricia Ríos-Chávez, Alfredo Saavedra-Molina, Joel Edmundo López-Meza, Alejandra Ochoa-Zarzosa and Rafael Salgado-Garciglia. IIQB, Universidad Michoacana

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Comparative analysis of the synthesis and accumulation of dhurrin in sorghum plants associated with mycorrhizal fungi under different water stress conditions. **Silvia Edith Valdés Rodríguez**, Magaly Perez Lara, Rosalinda Serratos Flores, Victor Olalde Portugal. CINVESTAV-Irapuato

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Daily variations of liver 5-tryptophan hydroxylase in rats under daytime restricted feeding. **Marlen Valdés-Fuentes**, Isabel Méndez, Dalia de Ita-Pérez and Mauricio Díaz-Muñoz. Laboratorio de Fisiología Celular. Instituto de Neurobiología, Campus Juriquilla. UNAM

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Low pH induces changes in the dynamic properties of Ig light chain variable domain 6aJL2, impacting both unfolding pathways and fibril formation. **Gilberto Valdés-García**, Cesar Millán-Pacheco, Nina Pastor. Facultad de Ciencias, UAEM

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Transcriptomic analysis of two *Arabidopsis* mutants with altered expression of inorganic soluble pyrophosphatase isoforms under phosphate starvation. **Lilián Gabriela Valencia-Turcotte**, Yahir Jaramillo-Díaz, Yazmin Martínez-Casales, Miguel Carranza-Brito, Carlos Páez-Franco y Rogelio Rodríguez-Sotres. Facultad de Química, UNAM

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Analysis of storage proteins in native maizes of Oaxaca by electrophoresis. **Carlos Francisco Varapizuela Sánchez**, Marco Sánchez-Medina, Socorro Pina-Canseco, Alma Dolores Pérez-Santiago. Instituto Tecnológico de Oaxaca

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Thermostability of *Phaseolus lunatus* Lectin. **Miguel Ángel Vásquez Calleja**, Lucia Francely Flores Carlos, Mario Valera Zaragoza, Yadira Gochi Ponce, Alma Dolores Pérez Santiago. Instituto Tecnológico de Oaxaca

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Dominant Negative Phenotype of *Bacillus thuringiensis* Cry1Ab, Cry11Aa and Cry4Ba Mutants Suggest Hetero-Oligomer Formation among Different Cry Toxins. **Daniela Carmona**, Claudia Rodríguez-Almaza, Carlos Muñoz-Garay, Leivi Portugal, Claudia Pérez, Ruud A de Maagd, Petra Bakker, Mario Soberón, Alejandra Bravo. Instituto de Biotecnología, UNAM

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Quantification of genetically modified MON810 maize (*Zea mays* L.) leaves by qPCR and Dpccr. **Blanca Gómez C**, Lizbeth Gutiérrez A, Luis Castillo D, Felipe Arguijo P, Abraham Acatzi S. CNRDOGM-SENASICA

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Identification of microRNAs responsive to chronic drought, during three growth stages of *Brachypodium distachyon* Bd21. **Amado Ortiz-Yescas**, Mariana E. Cesario-Solis, Julián M. Peña-Castro, Blanca E. Barrera-Figueroa. Instituto de Biotecnología, Universidad del Papaloapan

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Antimicrobial peptide expression in *E. Coli*. **Gina Pacheco Arredondo**, Herminia Loza Tavera, Carlos Regalado González, Romina Rodríguez Sanoja. Instituto de Investigaciones Biomédicas, UNAM

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The overexpression of the *Amaranthus hypochondriacus* *NFY-C* gene modifies the growth rate and confers abiotic stress resistance in Arabidopsis. **Paola Andrea Palmeros-Suárez** y John Paul Délano-Frier. CINVESTAV – IPN Unidad Irapuato

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AtNTC, a novel arabidopsis gene involved in development and stress responses. **David Paz Cabrera**, Nadia Celene Rodríguez Felipe, Aida Araceli Rodríguez-Hernández, María Azucena Ortega-Amaro, Juan Francisco Jiménez-Bremont, Margarita Rodríguez-Kessler. Facultad de Ciencias, UASLP

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Isolation and characterization of microorganisms with tolerance to toxic concentrations of lead and zinc, and their effect on the growth of *Arabidopsis thaliana* under conditions of lead toxicity. **Daniel Alejandro Perea de Ávila**, Víctor Emmanuel Balderas Hernández. Universidad Autónoma de Zacatecas

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A new transformation vector to increase the accumulation of trehalose in *Nicotiana tabacum* transgenic plants. **Martha Berenice Pérez Mendoza**, José Oscar Mascorro-Gallardo, José Augusto Ramírez Trujillo, Ramón Suárez Rodríguez. Centro de Investigación en Biotecnología. UAEM

BT-91

Characterization of protein extracts from two strains able to hydrolyze methyl parathion. **Elida Carolina Popoca-Ursino**, Maikel Gilberto Fernández-López, Ma. Laura Ortiz-Hernández. Biotechnology Research Center, Autonomous University of the State of Morelos

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Role of potassium uptake systems in *Azospirillum brasilense* Sp245 osmo adaptation. **Indalecio Prieto-Sánchez**, Ramón Suárez Rodríguez, José Augusto Ramírez-Trujillo. Centro de Investigación en Biotecnología. UAEM

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Antimicrobial and Biochemical Characterization of Actinomycetes Antagonists of Phytopathogenic Microorganisms Isolated from Soils of Michoacán. **Evangelina Quiñones-Aguilar**, Jesús Trinidad-Cruz, Gabriel Rincón-Enríquez, Zahaed Evangelista-Martínez, Joaquín Qui-Zapata. Línea de Biotecnología Vegetal. CIATEJ

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Different speract gradients attract *Strongylocentrotus purpuratus* spermatozoa. **Héctor Vicente Ramírez Gómez**, Vilma Jiménez Sabinina, Adán Oswaldo Guerrero Cárdenas y Alberto Darszon Israel. Consorcio de la fisiología del espermatozoide. Departamento de Genética del Desarrollo y Fisiología Molecular. Instituto de Biotecnología, UNAM

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In Vivo assessment of probiotic characteristics indigenous lactic acid bacteria. **Alejandra Ramírez Torres**, Lucía María Cristina Ventura Canseco, Dolores Guadalupe Vidal López, Miguel Abud Archila, Sandy Luz Ovando Chacón. Instituto Tecnológico de Tuxtla-Gutiérrez

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Electrophoretic patterns of pregerminated maize and field performance. **Juan Carlos Raya-Pérez**, Fco. Chablé Moreno, Cesar L Aguirre-Mancilla, J Gabriel Ramírez-Pimentel, Jorge Covarrubias-Prieto, Gpe. García-Rodríguez. Instituto Tecnológico de Roque

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The ISC Genetic System Involved in the Virulence of Pathogenic Bacteria of Plant. **Gabriel Rincón-Enríquez**, Diego Eloyr Navarro-López, Julio Cesar Juarez-Garcia, Evangelina Esmeralda Quiñones-Aguilar, Joaquin Alejandro Qui-Zapata. Línea de Biotecnología Vegetal, Centro de Investigación y Asistencia en Tecnología y Diseño del Estado de Jalisco, A.C.

BT-98

Biochemical and immunological studies of mannitol dehydrogenase in strain YR-1 of *Mucor circinelloides* isolated from petroleum contaminated soil. **Marlene Gabriela Rivas Paulin**, Roberto Zazueta-Sandoval. División de ciencias Naturales y Exactas. Universidad de Guanajuato.

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Purification and characterization of antimicrobial peptides derived from the venom of *Scolopendra polymorpha*. **Carmen Itzamatul Rodríguez Alejandro**, Lucero Valladares Cisneros y María del Carmen Gutiérrez Villafuerte. Centro de Investigación en Biotecnología, UAEM

BT-100

Cloning and bioinformatic and biochemical characterization of a novel glycosyl hydrolase family 10 of *Bjerkandera adusta*. **María del Rocío Rodríguez Hernández**, Ramón Alberto Batista García, Claudia Martínez Anaya, Jorge Luis Folch Mallol. Centro de Investigación en Biotecnología, Universidad Autónoma del Estado de Morelos.

BT-101

Viability and germination of seeds of *Swietenia macrophylla* King mediated by tetrazolium staining. **Juan Rodríguez Santiago**, E Hernández-Domínguez, Alejandro G Nila-Méndez, F Gabino. Unidad de Investigación en Biotecnología Vegetal, Instituto Tecnológico Superior de Acayucan

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Design and biological comparison between alpha helical and beta-defensin antimicrobial peptides. **Alexis Joavany Rodríguez Solís**, Elba Cristina Villegas Villarreal, Gerardo A. Corzo Burguete Departamento de Medicina Molecular y Bioprocesos, Instituto de Biotecnología, UNAM

BT-103

Exposure Effects of toxic dinoflagellates on gene expressions related to cell cycle regulation in *Crassostrea gigas*. **Reyna Romero-Geraldo**, Norma García-Lagunas and Norma Yolanda Hernández-Saavedra. Centro de Investigaciones Biológicas del Noroeste

BT-104

Changes in polyamine profile of *Arabidopsis* in the interaction with *Trichoderma atroviride*. **Fatima Berenice Salazar Badillo**, Diana Sánchez Rangel, Artemio Mendoza Mendoza, Alicia Becerra Flora and Juan Francisco Jiménez Bremont. Department of Molecular Biology, The Institute for Scientific and Technological Research of San Luis Potosi, IPICYT

BT-105

Evaluation of antibiotics in milk content of the main producing areas of Chiapas, Mexico. **Patricia G Sánchez Iturbe**, Pedro T Ortiz y Ojeda, Pedro Alfonso Gpe Ortiz S. Instituto Tecnológico de Tuxtla Gutiérrez

BT-106

Novel thioesterase for degradation of toxic aromatic compounds. Functional and structural implications. **Ayixon Sánchez Reyes**, Ramón Batista García and Jorge Luis Folch Mallol. Facultad de Ciencias. UAEM

BT-107

Evaluation of antiviral and toxic effect of secondary metabolites present in fractions and methanol extracts of *Rhoeo discolor* (L'HerHance) and *Callisia fragrans* (L. Woodson) on influenza virus (H1N1). **Yazmin Sánchez Roque**, Reiner Rincón Rosales, Rocío Meza Gordillo, Víctor Manuel Ruíz Valdiviezo, Teresa del Rosario Ayora Talavera, Guadalupe Ayora Talavera. Instituto Tecnológico de Tuxtla-Gutiérrez

BT-108

Zn²⁺ preconditioning triggers mechanisms that increase the cadmium accumulation capacity in photosynthetic *Euglena gracilis*. **Rosina Sánchez-Thomas** and Dr. Jorge Donato García-García. Cardiology National Institute "Ignacio Chavez"

BT-109

Micropropagation and induction of organogenesis *in vitro* of *Heliocarpus appendiculatus* Turcz and *Trema micrantha* L. Blume. **Nathaly del C Sánchez Villegas**, Ángel Sol Sánchez, Roberto de la Rosa Santamaría, Obdulia Baltazar Bernal, Elizabeth Hernández Domínguez, Francisco Javier Gabin Román. Colegio de Postgraduados, Campus Tabasco

BT-110

A novel model for the study of heavy metal stress in plants. **Lenin Sánchez-Calderón**, Ricardo Ortiz-Luevano, Leonardo Castanedo-Ibarra, Renato Rivera-Menchaca, Miguel Alvarado Rodríguez, Claudia González-Salvatierra, Ramírez-Pimmental JG. Doctorado en Ciencias Básicas, Universidad Autónoma de Zacatecas

BT-111

Isolation and characterization of a thermostable lipase from a cDNA library of the white rot fungus *Bjerkandera adusta*. **María del Rayo Sánchez-Carbente**, Catalina Morales, Senorina Castañeda Gómez and Jorge Luis Folch Mallol. Laboratorio de Biología Molecular de Hongos, Centro de Investigación en Biotecnología, UAEM

BT-112

qPCR to assess the robustness of a manufacturing process to remove adventitious viruses from biopharmaceuticals. **Adán Sánchez-Ponce**, Alejandro Canales-Aguirre, Ana Laura Márquez-Aguirre. Biotecnología Médica y Farmacéutica. CIATEJ

BT-113

How the intensity of an electric field can modify the physiology of *Aspergillus niger* growing in solid state culture? **Victor Sánchez-Vazquez**, Marco Reza-Valdés & Mariano Gutiérrez-Rojas. Departamento de Biotecnología. Universidad Autónoma Metropolitana-Iztapalapa

BT-114

Timely detection of Mycobacterium using DNA microarrays. **José Luis Santillán Torres**, Lorena Chávez González, Simón Guzmán León, Jorge Ramírez Salcedo. Unidad de Microarreglos de DNA, Instituto de Fisiología Celular, UNAM

BT-115

Establishment of *in vitro* shoot and root cultures of *Argemone mexicana* L. **José Germán Serrano-Gamboa**, Miriam Monforte-González y Felipe A. Vázquez-Flota, UBBMP, CICY

BT-116

Enzymatic synthesis of polyphenylene disulfide-like compounds from aromatic dithiols. **Estefanía Sierra Ibarra**, Marcela Ayala Aceves. Instituto de Biotecnología - UNAM

BT-117

Avocado snakín (*PaSn*)cDNA cloning into pCAMBIA-*PaSn* vector for enhancing fungal resistance in strawberry plants using *Agrobacterium* mediated transformation. **Sarai Suárez García**, Luis María Suárez Rodríguez, Alejandra Hernández García, Joel Edmundo López Meza, Alejandra Ochoa Zarzosa, Rodolfo López Gómez y Rafael Salgado Garciglia. IIQB. Universidad Michoacana

BT-118

Assessment of cross-reactivity and neutralizing capacity of single chain antibodies directed against Mexican scorpion venoms. **Selene Jocelyn Uribe Romero**, Timoteo Olamendi Portugal, Baltazar Becerril, Lidia Riaño Umbarila. Instituto de Biotecnología, UNAM

BT-119

Bifunctional gene for trehalose synthesis induces changes in photosynthesis in wheat plants under salinity. **Elisa M Valenzuela-Soto**, Fabiola A Cabral-Torres, Ciria G Figueroa-Soto, Juan Pablo Valenzuela-Avendaño. Centro de Investigación en Alimentación y Desarrollo AC

BT-120

Purification and identification of peptides with antimicrobial activity present in the venom of *Scolopendra viridis*. **Lucero Valladares Cisneros** y María del Carmen Gutiérrez Villafuerte. Centro de Investigación en Biotecnología, UAEM

BT-121

Heterologous expression of intrepicalcín, isolated from the venom of scorpion *Vaejovis intrepidus*. **Leonel Vargas Jaimes**, Verónica Quintero-Hernández, Hector H Valdivia y Lourival D Possani. Facultad de Ciencias, UAEM

BT-122

Study of genes involved in the stress response in *Saccharomyces cerevisiae* and their effect during Agave juice fermentation. **Naurú Idalia Vargas Maya**, Gloria Angélica González Hernández, Araceli López Andrade, Adriana García Tapia and Juan Carlos Torres Guzmán. División de Ciencias Naturales y Exactas. Universidad de Guanajuato

BT-123

Fungal endophytes of *taxus globosa* schltl., potential producers of secondary metabolites for biological control of *Phytophthora capsici* AND *Pythium* sp., plant pathogens of major agricultural crops. **Romalda Vásquez Gutiérrez**, Felipe de Jesús Palma Cruz, Lucía Martínez Martínez, Claudia López Sánchez. Instituto Tecnológico de Oaxaca

BT-124

Growth kinetics and effect of pH on the emulsifying activity of the bioemulsifier produced by *Acinetobacter bouvetii* using hexadecane as organic phase. **José Luis Vázquez Vázquez**, Gabriela Jaqueline Rojas Castillo, Mariano Gutiérrez Rojas. UAM-I

BT-125

Overproduce of the leucine aminopeptidase yspII of *Schizosaccharomyces pombe* in the *Pichia pastoris* yeast methylotrophic. **José Luis Cerriteño-Sánchez**, Gerardo Santos-López, Nora Hilda Rosas-Murrieta, Irma Herrera-Camacho. ICUAP-BUAP

OXYGEN REACTIVE SPECIES**OR-18**

ROS generation in cell transformation induced by metal mixture and OLA1 expression. **Elia Martínez-Baeza**, Emilio Rojas-del Castillo and Mahara Valverde-Ramírez. Departamento de Medicina Genómica y Toxicología Ambiental, Instituto de Investigaciones Biomédicas, UNAM

OR-19

Selection of a thermotolerant yeast and evaluation of the oxidative stress and antioxidant response. **Jorge Arturo Mejía-Barajas**, Melchor Arellano-Plaza, Salvador Manzo-Avalos, Rafael Salgado-Garciglia, Christian Cortés-Rojo, Mónica Clemente-Guerrero, Rocío Montoya-Pérez, Alfredo Saavedra-Molina. IIQB. Universidad Michoacana de San Nicolás de Hidalgo

OR-20

The hormone prolactin is a novel survival factor for the retinal pigment epithelium. **Rodrigo Meléndez García**, David Arredondo Zamarripa, Norman Adán, Edith Arnold, German Baeza Cruz, Carmen Clapp, and Stéphanie Thebault. Instituto de Neurobiología, Campus UNAM-Juriquilla

OR-21

Mitochondrial DNA oxidation and OGG expression change (8-oxoguanine DNA glycosilase) during heart failure development. **Luisa I Orta Gaytan**, Jorge E Vela, Irais Rivera and Noemí García. Escuela de Medicina, Tecnológico de Monterrey

OR-22

Does Bcl-3 activate p50 during oxidative conditioning hormesis response? **Gibran Pedraza-Vázquez**, José Luis Ventura-Gallegos, Roberto Lazzarini-Lechuga, Luis Enrique Gómez-Quiroz, Mina KonigsbeGR-Fainstein, Armando Luna-López. Instituto Nacional de Geriatria. UAM-I

OR-23

Dynamics of the intracellular H₂O₂ levels in the root of *Arabidopsis thaliana* in response to a specific NADPH inhibitor. Rocío del Carmen Pérez, Jesús S. López Bucio, Alejandra Hernández-Barrera, Rosana Sánchez, **Eric Johnson**, Hen-ming Wu, Alice Cheung, Federico Sánchez, Carmen Quinto and Luis Cárdenas. Instituto de Biotecnología, UNAM

OR-24

Evaluación de la producción de especies reactivas del oxígeno en mitocondrias aisladas de hepatocitos de conejos con una dieta moderada en grasa. **Mario Alejandro Pérez-Medina**, C Marissa Calderón-Torres, Santiago C Sigrist Flores, J Rafael Jiménez Flores. Morfofisiología, FES-Iztacala, UNAM

OR-25

Hepatic injury response against a pro-inflammatory stress in rats from different ages. **Posadas Rodríguez Pedro**, Pedraza Vázquez Gibran, Bello Monroy Oscar, Konigsberg Fainstein Mina, Gómez-Quiroz Luis Enrique, Luna López Armando. Investigación Básica. Instituto Nacional de Geriatria. UAM-I

OR-26

ROS detoxification analysis in the non-conventional yeast *Debaryomyces hansenii*. **Mónica Ramírez-Hernández**, Viviana Escobar-Sánchez, Angeles Cancino-Rodezno, Víctor Valdés-López, Luisa Alba-Lois and Claudia Segal-Kischinevsky. Facultad de Ciencias, UNAM

OR-27

Tetraspanin PLS-1 in the regulation of NADPH oxidases in *Neurospora crassa*. **Angélica Mariana Robledo-Briones**, María del Sol Hernández-Galván, Juan Carlos Santos-Rodríguez and Jesús Aguirre. Instituto de Fisiología Celular, UNAM

OR-28

Oxidative stress by nicotine in rat gingiva. **Yadira Romero Serrano**, Diana Barrera Oviedo. Farmacología, Facultad de Medicina, UNAM

OR-29

Dynamic of reactive oxygen species in root hair cells and pollen tubes are essential for polar growth. **Ana-María Velarde-Buendía**, Alejandra Hernández-Barrera, Karina Jiménez Durán, Rosana Sánchez, Eric Johnson, Federico Sánchez, Carmen Quinto, Hen-ming Wu, Alice Cheung and Luis Cárdenas. Instituto de Biotecnología, UNAM

OR-30

The release of cytochrome C is altered in the liver of rats with metabolic syndrome: role of cardiolipin. **Angélica Ruiz-Ramírez**, Miguel A Barrios Maya and Mohammed El Hafidi Bentlakder. Cardiovascular Biomedicine, National Institute of Cardiology Ignacio Chávez

OR-31

Participation of Fe-S Proteins Aco1p, Lip5p, Sdh2p and Rip1p in Ethanol toxicity in *Saccharomyces cerevisiae*. **Luis Alberto Sánchez Briones**, Rocío Pérez-Gallardo, Mauricio Gómez Gallardo, Alma Díaz-Pérez, Christian Cortes-Rojo and Jesús Campos-García. IIQB, Universidad Michoacana

OR-32

Oxidative DNA damage and antioxidant enzyme activity in two vampire bats species (*Desmodus rotundus* y *Diphylla caudata*). **Toledo Pérez Rafael**, Carlos Cantellano De Gante, Conde-Pérezprina Juan Cristóbal, Armando Luna López, Miguel Ángel León Galván Mina Konigsberg Fainstein. Departamento de Ciencias Básicas y de la Salud. UAM-I

OR-33

Oxidative stress in liver and brain in rats fed with a diet supplemented with 30% sucrose. **Héctor Valente-Godínez**, Olivia Vázquez-Martínez, Mildred Chagoya Sánchez, Isabel Méndez, Mauricio Díaz-Muñoz y Vania Carmona-Alcocer. Instituto de Neurobiología, UNAM

GENETICS**G-24**

Association of variants in *NR3C* and *SLC6A4* genes and Major Depression in Mexican Mestizos. **Luz Berenice López-Hernández**, Omar Medrano-Espinosa, Cristina Rodríguez-Hernández, Martha Georgina Ochoa-Madrugal, Agustín Coronel-Pérez, Guillermina Ávila-Ramírez, Javier Cano-Martínez and Silvia García. CMN 20 de Noviembre, ISSSTE

G-25

Pax8 produces aberrant transcripts in cervical tumors and derived cell lines. **Eduardo López-Urrutia**, Cesar Cortés-González, Veronica García-Castillo, Osvaldo Bautista-Isidro Abraham Pedroza-Torres Verónica Frago-Ontiveros Jaime Coronel and Carlos Pérez-Plasencia. Unidad de Biomedicina. FES Iztacala-UNAM

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Association between the BDNF val66met polymorphism and BMI in Mexican children. **José Darío Martínez-Ezquerro**, Mario Enrique Rendón-Macías, Gerardo Zamora, Jacobo Serrano-Meneses, Yessica Arellanos, Beatriz Rosales-Rodríguez, Deyanira Escalante-Bautista, Raúl Sánchez González, Maricela Rodríguez Cruz, Mardía López Alarcón, Elith Yazmin Valencia Villalvazo, Cecilia Zampedri, and Haydeé Rosas-Vargas. Centro Médico Nacional Siglo XXI, IMSS

G-27

Association of the R577X variant in the ACTN3 gene with obesity in mexican mestizos. **Luis Ángel Montes-Almanza**, Froylan Arturo García-Martínez, Luz Berenice López-Hernández, Mirza Romero-Valdovinos, Angélica Alfósina Olivo-Díaz, José Gilberto Franco-Sánchez, Andrea Pegueros-Pérez, Ariadna Del Villar-Morales, Benjamín Gómez-Díaz. FES Zaragoza UNAM

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Molecular identification and phylogenetic analysis of mosses of semiarid area from Durango. **Benjamin Nava Reyes**, Jorge Sáenz Mata, Jaime Sánchez Salas, Gisela Muro Pérez, Verónica Ávila Rodríguez, Jorge Arturo Alba Ávila. Biología Molecular. Universidad Juárez del Estado de Durango

G-29

An altered hydrotropic response (*ahr2*) mutant of *Arabidopsis* is tolerant to drought stress. **Laura Noriega Calixto**, María Eugenia Campos Torres, Delfeena Eapen and Gladys I Cassab López. Biología Molecular de Plantas, Instituto de Biotecnología, UNAM

G-30

Generation of membrane transporters's deletion mutants of *Ustilago maydis* by the *BsaI* cloning system. **Dario Rafael Olicón Hernández**, Michael Feldbrügge, Silke Jankowski, Ana Niurka Hernández Lauzardo, Guadalupe Guerra Sánchez. ENCB-IPN

G-31

Gallibacterium anatis as model organism to study the CRISPR/Cas system in *Pasteurellaceae*. **María de Lourdes Pérez Hernández**, Candelario Vázquez-Cruz, Erasmo Negrete Abascal, Patricia Sánchez Alonso. Instituto de Ciencias. Benemérita Universidad Autónoma de Puebla

G-32

C. glabrata strains that express both types of mating information are more sensitive to oxidative stress. **Karina Asyade Robledo Márquez**, Irene Castaño Navarro. IPICyT

G-33

Study of *KCNJ11* and *ABCC8* allelic variants from K_{ATP} channels in type 2 diabetic patients treated with sulphonylureas, biguanides or both. **Nidia Samara Rodríguez-Rivera**, María de los Ángeles Granados Silvestre, Marta A. Menjívar Iraheta, María Guadalupe, Ortiz López, Juan A. Molina Guarneros. Laboratorio de Inmunofarmacología, Farmacología, Facultad de Medicina, UNAM

G-34

Functional analysis of *pyr4* gene encoding orotidine-5'-monophosphate decarboxylase and its usefulness as a selectable marker in *Trichoderma atroviride*. **Erick Rojas Espinosa**, Fidel Landeros Jaime, José Antonio Cervantes Chávez, Edgardo Ulises Esquivel Naranjo. Universidad Autónoma de Querétaro.

G-35

Escargot gene involvement in the establishment of gustatory neurons that respond to volatilized nicotine in *Drosophila melanogaster*. **Fernando Rosales Bravo**, Enrique Reynaud Garza, Verónica Narváez Padilla. Morelos State Autonomous University

G-36

Analysis of serotonin 2A receptor gene in depression associated to Parkinson's disease in Mexican population. **Elizabeth Ruiz Sánchez**, Elisa Alonso Vilatela, Petra Yescas Gómez, Hayde Noemy León Echeverría, Yéssica Myr Alcántara Flores, Diana Alvarado Crespo, Mayela Rodríguez Violante, Ángel Alberto Ruiz Chow, Pedro Montes del Carmen, Amin Cervantes Arriega y Patricia Rojas Castañeda. Neurotoxicología. Instituto Nacional de Neurología y Neurocirugía

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Expression and subcellular distribution of β -dystroglycan in prostate cancer. **Ariana María Sandoval Duarte**, Juan de Dios Gómez López, Bulmaro Cisneros Vega. CINVESTAV-IPN

G-38

ERCC1 genotypes in Mexican lung cancer patients. **Cuauhtémoc Sandoval, Daniel A. Medoza Posada**, Arnoldo Aquino-Galvez, Bettina Sommer Cervantes, Georgina González-Avila. Instituto Nacional de Enfermedades Respiratorias "Ismael Cosío Villegas"

G-39

Recopilación de Encuestas y Muestras Biológicas Humanas de Estudiantes y Trabajadores del Campus Chontalpa de la Universidad Juárez Autónoma de Tabasco (UJAT), como primera etapa para identificar la asociación entre la infección por Dengue y el genotipo del Tabasqueño. **Karla Alejandra Silva Pérez**, Miguel Ricardez Santiago, Hernán Emiliano Ramírez Gamas, Valeria Guadalupe Balan Basto, Moisés

Renato Carmona Guzmán, Melquisedec S. Esquivel Sentfies. Universidad Juárez Autónoma de Tabasco, Campus Chontalpa

G-40

Establishment of endogenous control genes in *Sporothrix schenckii* for data normalization in Real-Time PCR. **José Elias Trujillo Esquivel**, José Asunción Martínez Álvarez, Patricia Ponce Noyola and Héctor Manuel Mora Montes. Biología, DCNyE. Universidad de Guanajuato

G-41

Functional characterization of three mannosyltransferases of *Saccharomyces cerevisiae* by complementation in *Candida albicans*. **Nahúm Valente Hernández**, and Héctor M Mora-Montes. Biología, División de Ciencias Naturales y Exactas, Universidad de Guanajuato

G-42

A DNA damage dependent mechanism regulates the return of *Bacillus subtilis* spores to vegetative growth. **Luz Idalia Valenzuela-García**, Susana Campos-Castillo and Mario Pedraza Reyes. Department of Biology. University of Guanajuato

G-43

Evaluating the functionality of Gpn1carboxy-terminal domain and nuclear export signal in *Saccharomyces cerevisiae*. **Guerrero-Serrano Gehenna**, De las Peñas Alejandro, Castaño Irene, Calera Mónica R, Sánchez-Olea Roberto. Instituto de Física, UASLP

MEDICINE, HEALTH AND NUTRITION**M-48**

Looking for new antimalarials. Virtual screening into the glycolytic enzyme phosphoglyceratemutase 1 from *Plasmodium falciparum*. **Lluvia Iveth Ríos-Soto**, Miriam Leticia Aguirre-Raudry, María Irene Betancourt-Conde, Alejandra Guadalupe Vazquez-Raygoza, Claudia Avitia-Domínguez, Mónica Andrea Valdez-Solana, Erick Sierra-Campos, Alfredo Téllez-Valencia. Facultad de Medicina y Nutrición, Universidad Juárez del Estado de Durango

M-49

Regulation of mitochondrial permeability transition by Sirt3-catalyzed cyclophilin D deacetylation and its relevance for ventricular dysfunction in heart and isolated cardiomyocytes. **Sheryl Rizzo**, José A. Morales, Christian Silva-Platas, Elena C. González- Castillo, Luis Vega-Sevilla, Enrique Guerrero- Beltrán, Noemí García, and Gerardo García-Rivas. Escuela de Medicina. Tecnológico de Monterrey.

M-50

Hypothyroidism decreases the immunolocalization of Farnesoid receptor (FXR) in pancreatic islet and liver cells of rabbits. **Julia Rodríguez-Castelán**, Arturo Herrera-Flores, Francisco Castelán, Estela Cuevas. Maestría en Ciencias Biológicas, Universidad Autónoma de Tlaxcala

M-51

Cardiovascular risk factors in childhood influence the number of Colony-Forming Units generated *in vitro* by circulating endothelial progenitor cells in peripheral blood. **Rocío Rodríguez-Valentín**, Cidronio Albavera-Hernández, Alfonso Carreón-Rodríguez, Idanelli Barrios Jacobo, Eduardo Lazcano-Ponce, Eduardo Salazar-Martínez. Instituto Nacional de Salud Pública, Morelos

M-52

Preliminary analysis of pro-inflammatory and metabolic changes in school children with different proportions of body fat. **Cecilia Rosel Pech**, Ernestina Polo Oteya, Mónica Ancira Moreno, Noemi Meraz Cruz, Yunuén Pruneda Padilla, Marcela Vela Amieva, Isabel Ibarra González, Felipe Vadillo-Ortega. Posgrado en Ciencias Biológicas UNAM

M-53

The physiological role of the T-type Calcium Channels in cell lines bone cancer (Osteosarcoma). **Jacaranda Rosendo-Pineda**, Nidia Beltrán, Juan Carlos Gómora & Heriberto Manuel Rivera. Laboratorio de Tecnología de Proteínas de Membrana, Facultad de Medicina. UAEM

M-54

Improvement of transduction with Ad-GFP vector mediated by siRNA- IFN- α in hepatic cells. **Sobrevilla-Navarro AA**, Sandoval-Rodríguez AS, García-Bañuelos JJ, Hernández-Ortega LD, Armendáriz-Borunda J, and Salazar-Montes AM. Institute of Molecular Biology in Medicine and Gene Therapy CUCS, University of Guadalajara

M-55

Intramuscular gene therapy using MMP8 gene modify profibrogenic gene expression in experimental liver fibrosis. **Jesús García-Bañuelos**, Eden Ocegüera-Contreras, Daniela Gordillo-Bastidas, Ana Sandoval-Rodríguez, Blanca Bastidas-Ramírez, José Macías-Barragan, Belinda Gomez-Meda, Juan Armendariz-Borunda. Institute of Molecular Biology and Gene Therapy.

M-56

Antidiabetic drug design. Computational approaches for optimization of a new Protein Tyrosine Phosphatase 1B inhibitor. **Marie Jazmín Sarabia Sánchez**, Alicia Hernández Campos, Pedro Josué Trejo Soto, Artemisa Luévano de la Cruz, Claudia Avitia Domínguez, José Manuel Salas Pacheco, Alfredo Téllez Valencia. Facultad de Medicina y Nutrición, Universidad Juárez del Estado de Durango

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Sorcín interacts with the mitochondrial calcium uniporter and inhibits calcium transport in cardiac mitochondria. **Christian Silva-Platas** and Gerardo García-Rivas. Escuela de Medicina. Tecnológico de Monterrey

M-58

Differences in the expression O-glycosylated glycol proteins in Cervical Cancer Cell Lines with and without HPV detected by *Amaranthus leucocarpus* Lectin. **Yael Ruíz Pichardo**, Victoria Jiménez Castillo, Jesús Cruz Santiago, Yobana Pérez Cervera, Francisco Urrea, Carlos Josué Solórzano Mata. Facultad de Odontología, Universidad Autónoma Benito Juárez de Oaxaca

M-59

Antimalarial drug discovery. Molecular docking in the dimer interface of triosephosphate isomerase from *Plasmodium falciparum*. **Alfredo Téllez-Valencia**, Claudia Avitia-Domínguez, Marie Jazmín Sarabia-Sánchez, Artemisa Luévano-De la Cruz, Iván Alejandro Favela-Candía, Mónica Andrea Valdez-Solana, Erick Sierra-Campos. Medicina y Nutrición, Universidad Juárez del Estado de Durango

M-60

Effects of histone deacetylase inhibitors on the development of bleomycin-induced pulmonary fibrosis. **María Fernanda Toscano Márquez**, Iliana Herrera Fuentes, Miguel Angel Negreros Amaya, Marco Antonio Espina Ordóñez, José G Cisneros Lira. Biología Celular, Instituto Nacional de Enfermedades Respiratorias “Ismael Cosío Villegas”

M-61

Biological Studies of Metforminium Decavanadate, $(\text{H}_2\text{Met})_3(\text{V}_{10}\text{O}_{28})\cdot 8\text{H}_2\text{O}$. **Samuel Treviño Mora**, Victor Enrique Sarmiento Ortega, Violeta Aburto Luna, Alfonso Daniel Díaz Fonseca, Patricia Aguilar Alonso, Diana Moroni González, Enrique González Vergara, and Eduardo Miguel Brambila Colombes. Investigaciones Químico Clínicas. BUAP

M-62

Circadian study of metabotropic glutamate receptors type 5 in the liver. **Isaías Turrubiate**, Mauricio Díaz-Muñoz, Isabel Méndez. Instituto de Neurobiología, Campus Juriquilla, UNAM

M-63

Hypoglycemic effect of watercress (*Nasturtium officinale*) extracts on hyperglycemic rats. **Mercedes Victoria Urquiza Martínez**, Sergio Gutiérrez Castellanos, Víctor Manuel Farías Rodríguez, Héctor Urquiza Marín and Bertha Fenton Navarro. Laboratorio de Glicobiología, UMSNH

M-64

T cells glycosylation pathway regulated by STAT-6 in a model of STAT-6^{-/-}knockout mice. **Janette Arias Escobedo**, Cecilia García Olivares, Ana Cristina Olivas Bejarano, Anna Kristyna Franco Flores, Blanca Ortiz Quintero, Jaime Chávez Alderete, Ricardo Lascurain Ledesma, Edgar Zenteno Galindo, Francisco Javier Urrea Ramírez. Depto. de Bioquímica, Instituto Nacional de Enfermedades Respiratorias.

M-65

Isolation and Characterization of Aptamers for Human Papilloma Virus Proteins Using Superficial Plasmon Resonance. **Diana Gabriela Valencia Reséndiz**, María Luisa Benítez Hess, Luis Marat Álvarez Salas. CINVESTAV-IPN

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Role of Tmprss4 in idiopathic pulmonary fibrosis. **Ana Mayela Valero Jiménez**, José G Cisneros Lira, Remedios Ramírez Rangel, Miguel O Gaxiola Gaxiola, Annie Pardo Cemo, Moisés Selman Lama. Instituto Nacional de Enfermedades Respiratorias “Ismael Cosío Villegas”

M-67

Maternal Separation and Post Weaning Social Isolation Differentially Affect Stress and Metabolic Vulnerability in Adult Rats. **Javier Vargas León, Mariana Junco** y Naima Lajud. Laboratorio de Neurobiología del Desarrollo, División de Neurociencias. Centro de Investigación Biomédica de Michoacán – Instituto Mexicano del Seguro Social.

M-68

Searching potential inhibitors of acetohydroxyacid synthase from methicillin resistant *Staphylococcus aureus* through virtual screening. **Alejandra Guadalupe Vazquez-Raygoza**, María Irene Betancourt-Conde, Claudia Isela Avitia-Domínguez, Jorge Arturo Cisneros-Martínez, Miriam Leticia Aguirre-Raudry, Lluvia Iveth Ríos-Soto, Alfredo Téllez-Valencia. Universidad Juárez del Estado de Durango

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Comparación del efecto neuroprotector de la silimarina y la silibina en un modelo murino de la enfermedad de Parkinson. **Víctor J. Zaldívar-Machorro**, Jesús Pérez-H. Claudia Meza López y Olguín y Anahí Chavarría Krauser. Medicina Experimental, Facultad de Medicina, UNAM

M-70

Comparison of the hypoglycemic activity in two varieties of *Averrhoa carambola* tested in streptozotocin-induced type 2 diabetic rats. **Cynthia Guadalupe Temores Ramírez**, Juan Florencio Gómez Leyva, John Paul Délano Frier, Blanca C. Ramírez Hernández, Javier E. García de Alba Verduzco, Julia Zañudo Hernández. Departamento de Ecología, División de Ciencias Biológicas y Ambientales. CUCBA.

M-71

Determination of plasmid profiles to a collection of *Escherichia coli* strains isolated from urinary tract infection (UPEC). **Dayanira Martínez-Cruz**, Ygnacio Martínez-Laguna, Patricia Lozano Zarain, Margarita María de la Paz Arenas-Hernández. Facultad de Ciencias Químicas, BUAP

MICROBIOLOGY AND PARASITOLOGY**MP-46**

Description of hydrocarbonoclastic activity and putative function of the genes *CYP52* of *Yarrowia lipolytica*. **Jossue Mizael Ortiz-Alvarez**, Griselda Ma. Chávez-Camarillo, María de Lourdes Villa-Tanaca, César Hugo Hernández-Rodríguez. Escuela Nacional de Ciencias Biológicas, IPN

MP-47

Isolation, characterization, and molecular identification of PGPR from halophilic grass *Distichlis spicata* (L.) Poaceae. **Rubén Palacio Rodríguez**, Jorge Sáenz Mata, María Leslie Delgado García, Osvaldo García Saucedo, Jaime Sánchez Salas, Gisela Muro Pérez. Universidad Juárez del Estado de Durango

MP-48

Identification of receptor ryanodine (IP3) in *Entamoeba histolytica*. **Isela Pérez Galarza**, Andrés Monsalvo Villagómez, Diana Jiménez López, Guadalupe Salazar-Enríquez, Ana Laura Cano Martínez, Alejandra Arreola Martínez, Omar González Maldonado, Andrés Salas Casas. Universidad Politécnica de Pachuca

MP-49

Purification and kinetic analysis of cytosolic and mitochondrial Thioredoxin glutathione reductase extracted from *Taenia solium* cysticerci. **Agustín Plancarte Crespo**, Gabriela Nava Balderas. Depto. de Microbiología y Parasitología, Facultad de Medicina, UNAM

MP-50

Evaluation of the non-catalytic binding function of Ts26GST a glutathione transferase isoform of *Taenia solium*. **Agustín Plancarte**, José Rodrigo Romero, Gabriela Nava, Horacio Reyes-Vivas, Martha Hernández. Facultad de Medicina, UNAM

MP-51

Homologue sequences to Iron Regulatory Protein in *Giardia duodenalis* genome. **Laura Yuliana, Plata-Guzmán**, Liliana, Soto-Castro, Milagro de Jesús, Luque-Ramírez, Jeanett, Chávez-Ontiveros, Héctor Samuel, López-Moreno, Rossana, Arroyo, Cuauhtémoc, Reyes-Moreno, Jorge, Milán-Carrillo, José Antonio, Garzón-Tiznado, Claudia del Rosario, León-Sicairos. Facultad de Ciencias Químico Biológicas, Universidad Autónoma de Sinaloa

MP-52

Physiological and molecular analysis of *Sclerotium cepivorum* Berk mutant not forming sclerotia. **Sandra Elizabeth González Hernández**, Cesar Arturo Ojeda Gutiérrez, Edgar Reyes Navarrete, Alberto Flores Martínez, Patricia Ponce Noyola. Universidad de Guanajuato

MP-53

Identification of a casein kinase 2(TvCK2) in *Trichomonas vaginalis*. **Laura Itzel Quintas-Granados**, María Elizabeth Álvarez-Sánchez. Autonomous University of Mexico City (UACM)

MP-54

Searching for molecular targets using the *K1* toxin from *Saccharomyces cerevisiae*. **Reyes-González Daniela**, Molina Vera C, Álvarez Hidalgo B, Campos Guillen J, Caballero Pérez J& Carlos Saldaña. Microbiología Básica y Aplicada. Campus Aeropuerto. Universidad Autónoma de Querétaro

MP-55

LEA proteins are involved on desiccation resistance and other abiotic stresses in *Azotobacter vinelandii*. **Selma Julieta Rodríguez Salazar**, Guadalupe Espín Ocampo, Soledad Moreno. Instituto de Biotecnología UNAM

MP-56

Genomic analysis of cyclic-di-GMP-related genes and their functional in *Azospirillum brasilense* Sp245 strain. **Araceli Romero-Pérez**, Alberto Ramírez-Mata, Adriana Gamboa-Pérez, José J. Aguilar-Piedras, M Luisa Xiqui-Vázquez, and Beatriz E Baca. Instituto de Ciencias. BUAP

MP-57

Analysis of *Avibacterium paragallinarum* operon related to quorum sensing and virulence. Esmeralda Rugerio López, Patricia Sánchez Alonso, Erasmo Negrete Abascal, Guillermo Horta Valerdi, Candelario Vázquez Cruz. Instituto de Ciencias, BUAP

MP-58

A SPCA1 in the Golgi apparatus of *Entamoeba histolytica*. Mario Alberto Rodríguez Rodríguez, Aarón Martínez Higuera, Hilda Lizbeth Pérez Herrera, Diana Jiménez-López, **Andrés Salas Casas**. Instituto de Ciencias de la salud. Universidad Autónoma del Estado de Hidalgo

MP-59

Genotypification of subtypes *Streptococcus mutans* of producing cavity in Querétaro, México. **Saldaña C**, Campos Guillen J, Camacho-Calderón N, Adame-Camarena G, Tavares De La Cruz A, & Morales-Tlalpan V. Facultad de Ciencias Naturales. Universidad Autónoma de Querétaro

MP-60

Analysis of the effect of benznidazole on the antioxidant metabolism of *Trypanosoma cruzi*. **Aketzalli Silva Carmona**, Zabdi González, Chávez Emma Saavedra. Instituto Nacional de Cardiología “Ignacio Chávez

MP-61

Comparative study of the secretable proteolytic activity higher than 160kDa in three groups of *Escherichia coli*. **Marycruz Trujillo Murillo**, Patricia Sánchez Alonso, Erasmo Negrete Abascal, Salustio Nájera Hernández, Esmeralda Escobar Muciño, Candelario Vázquez Cruz. Centro de Investigaciones en Ciencias Microbiológicas. Instituto de Ciencias. BUAP

MP-62

Homologue sequences to Iron Regulatory Protein in *Entamoeba histolytica* a genome. **Leticia Michelli Valle-García**, Liliana Soto-Castro, Laura Yuliana Plata-Guzmán, José G Acuña-Ochoa, José Antonio Cruz-Cárdenas, Jesús Christian Grimaldi-Olivas, Vianca Lizeth Ibarra-García, Mario León-Barraza, Jesús Rodrigo Payán-Benitez, Rossana Arroyo, José Antonio, Garzón-Tiznado, Claudia del Rosario León-Sicairos. Facultad de Ciencias Químico-Biológicas, Universidad Autónoma de Sinaloa

MP-63

Assessment of anticoccidial activity on *Eimeria sp.* oocysts from the yeast *Meyerozyma guilliermondii* isolated from chickens. **Jorge A. Valle-Hernández**, Rosa E Quiroz-Castañeda, Mayra . Cobaxin-Cárdenas, Ma. Laura Ortiz-Hernández, Raunel Tinoco-Valencia, Leobardo Serrano-Carreón, Edgar Dantán-González. Centro de Investigación en Biotecnología, UAEM

MP-64

Spo0M and its role in the formation of the septum, a new role for a regulator of sporulation of *Bacillus subtilis*. **Luz Adriana Vega Cabrera**, María Luisa Tabche, José Luis Rodríguez, Enrique Merino, Liliana Pardo. Instituto de Biotecnología de la UNAM

MP-65

Transient disulfide reduction is required for EFF-1 mediated cell-cell fusion. **Jorge Verdín** and Benjamin Podbilewicz. Department of Biology, Technion - Israel Institute of Technology.

MP-66

In silico analyses of a transcription factor MTF1 in *Trichomonas vaginalis*. **José Luis Villalpando-Aguilar**, María Elizabeth Álvarez Sánchez. Autonomous University of Mexico

MP-67

Ammonia-oligotrophic and/or diazotrophic heavy metal-resistant *Serratia* spp. Isolated from pioneer plants and main tailings from Zacatecas. **Lily Xochilt Zelaya-Molina**, Zeltzin Magaña-García, César Hugo Hernández-Rodríguez. Microbiología, ENCB - IPN

MP-68

A *Taenia crassiceps* metacestode factor enhances ovarian follicle atresia and oocyte degeneration in female mice. **Nadia Zepeda**, Sandra Solano, Natalia Copitin, Ana María Fernández, Patricia Tato, José Luis Molinari. Bioquímica y Biología Estructural, Instituto de Fisiología Celular, UNAM

NEUROSCIENCE AND NEUROBIOLOGY**N-17**

The administration of S-allyl cysteine reduces the neurological deficit and mortality in the middle cerebral artery occlusion model in the rat. **Luis Jardón-Aguillón**, Alma Ortiz-Plata, Perla D. Maldonado. Instituto Nacional de Neurología y Neurocirugía “Manuel Velasco Suarez”

N-18

STIM1 and ORAI1 importance in Alzheimer's. **Diana Jiménez-López**, Mario Hernández Alejandro, Carlos Vázquez Calzada, Guadalupe Salazar Enríquez, Isela Pérez-Galarza, Andrés Monsalvo-Villagómez, Alejandra Arreola Martínez, Omar González Maldonado, Andrés Salas Casas, Ana Laura Cano Martínez. Ciencias Básicas e Ingeniería. Universidad Autónoma del Estado de Hidalgo

N-19

ALPHA GABA_A receptor subunit is expressed in white matter astrocytes from the cerebellum. **Emmanuel Labrada Moncada**, Ataúlfo Martínez-Torres, Daniel Reyes-Haro. Neurobiología Celular y Molecular. Instituto de Neurobiología, UNAM. Campus Juriquilla

N-20

Searching for negative regulators of microglia activation: an alternative for Alzheimer's disease treatment? **Elisa Medrano Jiménez**, Jaime Totoriello García, Enrique Jiménez Ferrer, Alejandro ZamilpaAlvarez, Gustavo Pedraza and Leonor Pérez Martínez. Instituto de Biotecnología, UNAM

N-21

Effect on acetylcholine by ionic and oxidizing environments involved in Alzheimer's disease. **Armando Méndez-Garrido**, Maricarmen Hernández-Rodríguez, Martha Cecilia Rosales Hernández, Daniel Ramírez-Rosales. Instituto Politécnico Nacional

N-22

Role of *Nurr1* gene reduction and prenatal stress on depression-like behavior. **Pedro Montes del Carmen**, Elizabeth Ruiz Sánchez, Lourdes Paola Ruiz Flores, Patricia Rojas Castañeda. Laboratorio de Neurotoxicología, Instituto Nacional de Neurología y Neurocirugía

N-23

The ketone body β -hydroxy butyrate (BHB) reduces the production of reactive oxygen species and prevents neuronal death induced by glucose deprivation *in vivo* and *in vitro* models. **Teresa Montiel**, Alberto Julio-Amilpas, Eva Soto Tinoco, Cristian Gerónimo Olvera, Susana Flores and Lourdes Massieu. División de Neurociencias, Instituto de Fisiología Celular UNAM

N-24

Cytochrome P450 2J3 regulation in a LPS-induced model of neuroinflammation in astrocytes. **Navarro-Mabarak C**, Camacho-Carranza R, Espinosa-Aguirre JJ. Instituto de Investigaciones Biomédicas, UNAM

N-25

Neurological recovery in rats treated with a combination therapy after chronic spinal cord injury. **Roxana Haydee Rodríguez-Barrera**, Adrián Flores-Romero, Edna Elisa García-Vences, Liliana Blancas-Espinoza, Vinnitsa Buzoianu Anguiano, Ana María Fernández-Presas, Mina Konigsberg Fainstein, José Juan Antonio Ibarra Arias. Universidad Anáhuac México Norte

N-26

Differential expression of Dystrophins during murine brain development. **Griselda Rodríguez-Martínez**, José Romo-Yañez, Anayansi Molina-Hernández and Cecilia Montañez. CINVESTAV-IPN

N-27

Early life stress increases cytokine expression in the hippocampus and stimulates the release of cytokines in the circulation of rat pups. **Angélica Roque-Galicia**, Naima Lajud-Ávila, Alejandra Ochoa-Zarzosa, Luz Torner. Centro Multidisciplinario de Estudios en Biotecnología, FMVZ-UMSNH

N-28

Increased mitochondrial Complex IV activity by copper pre-treatment reduces MPP⁺-induced mitochondrial striatal damage. **Moisés Rubio-Osornio**, Marisol Orozco-Ibarra y Jorge Guevara Fonseca. Instituto Nacional de Neurología y Neurocirugía, Dr. Manuel Velasco Suárez

N-29

Epicatechin administration reduces circling behavior and dopamine depletion MPP⁺-induced in rat. **Moisés Rubio-Osornio**, Sergio Montes López, Francisca Pérez-Severiano y Jorge Guevara Fonseca. Instituto Nacional de Neurología y Neurocirugía, Dr. Manuel Velasco Suárez

N-30

Altered levels of histamine and H₁ receptor expression during central nervous system development in embryos from diabetic rats. **Solis González Karina**, De Nova Ocampo Mónica Ascención and Molina Hernández Anayansi. Instituto Nacional de Perinatología

N-31

Metabotropic glutamate receptors in the vestibular system of *Gallus domesticus*. **Ricardo Varela**, Eduardo Monjaraz, Alejandro Moyaho, Jorge Cebada and Amira Flores. Instituto de Fisiología, BUAP

N-32

Effects of sparteine on epileptiform activity induced by Pentylentetrazole. **Fridha Viridiana Villalpando Vargas** y Laura Guadalupe Medina Ceja. Laboratorio de Neurofisiología y Neuroquímica, Departamento de Biología Celular y Molecular, CUCBA, U. de G.

GENETIC REGULATION & EPIGENETIC**GR-67**

Function of TrxG during *Arabidopsis* root development. **Emilio Petrone-Mendoza**, Rosario Vega-León, Adriana Garay-Arroyo, Berenice García-Ponce de León, Elena Álvarez-Buylla and Ma. de la Paz Sánchez. Instituto de Ecología, UNAM

GR-68

Characterization of transcripcional regulation of human paraoxonase 1 in human hepatomacells. **Néstor Ponce-Ruiz**, Aurora Elizabeth Rojas-García, María de Lourdes Robledo-Marenco, Briscia Socorro Barrón-Vivanco, Yael Yvette Bernal-Hernández, Manuel Iván Girón Pérez, Irma Martha Medina-Díaz. Unidad Académica de Agricultura. Universidad Autónoma de Nayarit

GR-69

Regulation of *WRKY* genes in 35S::*AtGRDPI* lines under ABA treatments. **Jocelin Itzel Ramírez-Alonso**, Aída Araceli Rodríguez-Hernández, Carlos Vladimir Muro-Medina and Juan Francisco Jiménez-Bremont. División de Biología Molecular. IPICYT

GR-70

The expression of acidic ribosomal proteins in *Saccharomyces cerevisiae* during heat shock. **Juan Ismael Rea Hernández** and Samuel ZinkerRuzal. CINVESTAV-IPN

GR-71

Study of epigenetic changes in CCl₄ – induced cirrhosis modeland the hepatoprotective effect of IFC-305. **Jesús Rafael Rodríguez-Aguilera**, Carlos Alberto Guerrero-Hernández, Rosario Pérez-Molina R, Carla Elizabeth Cadena-del-Castillo, Lidia Martínez-Pérez, Félix Recillas-Targa and Victoria Chagoya de Sánchez. Instituto de Fisiología Celular, UNAM

GR-72

Functional analysis of Bdp1, a subunit of transcription factor TFIIB, in *Leishmania major*. **Fiordaliso C Román-Carraro**, Luis E Florencio-Martínez, Rebeca Manning-Cela and Santiago Martínez-Calvillo. Unidad de Biomedicina, Facultad de Estudios Superiores Iztacala, UNAM

GR-73

Sucrose: sucrose 1-fructosyltransferase(1-SST) gene isolation and a method for quantifying gene expression. **Ismael de Jesús Román Guzmán**, Joaquin Alejandro Qui Zapata, Ernesto Tapia Camposy Patricia Dupré. CIATEJ

GR-74

Analysis of legume-miRNAs present in *Medicago truncatula* in response to water deficit. **Paulette Sofía Romero Pérez**, Alejandra Alicia Covarrubias Robles, José Luis Reyes Taboada. Biología Molecular de Plantas, Instituto de Biotecnología, UNAM

GR-75

NF-kappaB inducing kinase (NIK) overexpression increases spheroid formation in breast cancer. **Mary Jose Rozete Navarro**, Daniel Damián Hernández De Castilla, Karla Itzel Vázquez Santillán and Vilma Araceli Maldonado Lagunas. Instituto Nacional de Medicina Genómica

GR-76

Polymorphisms in ABCA1, HNF1 α or PPAR γ genes and their participation in dyslipidemias. **Kristel M Salgado Balderas**, Mayra J Álvarez Bahena, José Santos Ángeles Chimal, Jesús Santa Olalla Tapia. Facultad de Medicina. UAEM

GR-77

Identification of miRNAs associated to pharmacologically induced autophagy in the colorectal cancer HCT116 cell line. **Rebeca Salgado-García**, Gabriela Figueroa-González, Carlos Pérez-Plasencia Verónica García-Castillo and Nadia Jacobo-Herrera. Unidad de Biomedicina. FES Iztacala-UNAM

GR-78

Deep Sequencing Analysis of *Ustilago maydis* Transcriptome in Response to Nitrogen Starvation. **José Alejandro Sánchez-Arreguín**, Miguel Ángel Hernández-Oñate, Claudia Geraldine León-Ramírez and José Ruiz Herrera. Ingeniería Genética. CINVESTAV – IPN. Irapuato

GR-79

MicroRNAs-mediated regulation of the tumor suppressor Merlin in response to inflammatory signals. **Nilda del Carmen Sánchez Castellanos**, Karla Meza Sosa, Leonor Pérez Martínez and Gustavo Pedraza-Alva. Medicina Molecular y Bioprocesos, Instituto de Biotecnología, UNAM

GR-80

The response to injury of the filamentous fungus *Trichoderma atroviride* is regulated by small RNAs. **José Manuel Villalobos-Escobedo**, Nohemí Carreras-Villaseñor, Joel Rodríguez-Medina, Cei Abreu-Goodger and Alfredo Herrera-Estrella. LANGE BIO – CINVESTAV, IPN Irapuato

GR-81

Study of common bean (*Phaseolus vulgaris*) microRNA2199 in water deficit conditions. **Carlos Alfonso Sierra-Sarabia**, Catalina Arenas-Huertero, David Arturo Velarde-Garduño, Alejandra Covarrubias and José Luis Reyes-Taboada. Biología Molecular de Plantas, Instituto de Biotecnología, UNAM

GR-82

Theroleofhistone acetyltransferase *HAM1* during DNA damage response in *Arabidopsis thaliana*. **Stefan Steckenborn Díaz Coria**, Adriana Garay-Arroyo, Berenice García-Ponce de León, Elena Álvarez-Buylla and Ma. De La Paz Sánchez. Instituto de Ecología, UNAM

GR-83

NIK is co-expressed with ALDH in breast tumors and regulates the breast cancer stem cells population. **Karla Vázquez-Santillán**, Patricia Piña-Sánchez, Javier Torres, Carolina González-Torres, Gustavo Martínez-Ruiz, Luis Enrique Jiménez-Hernández, Laura Muñoz-Galindo, Jorge Meléndez-Zajjla and Vilma Maldonado-Lagunas. Instituto Nacional de Medicina Genómica

GR-84

Transcriptomic Analysis of Pacific White Shrimp (*Litopenaeus vannamei*, Boone 1931) Exposed to Organic Silicon-Enriched Fertilizer. **Adrián Esteban Velázquez-Lizárraga**, Felipe Ascencio. Centro de Investigaciones Biológicas del Noroeste, S. C.

GR-85

Transcriptional regulation of the sodium-coupled neutral amino acid transporter SNAT2 by 17 β -estradiol during gestation in rat mammary gland. **Laura A. Velázquez-Villegas**, Víctor Ortiz, Anders Ström, Nimbe Torres, David A. Engler, Risë K. Matsunami, David Ordaz-Rosado, Rocío García-Becerra, Adriana M. López-Barradas, Fernando Larrea, Jan-Åke Gustafsson, Armando R. Tovar. Posgrado en Ciencias Bioquímicas, UNAM

GR-86

In vivo assessment of DNA methyltransferases inhibitor on cytochrome P4501A1 induction. **Olguin-Reyes SR**, Camacho-Carranza R, Espinosa-Aguirre JJ. Instituto de Investigaciones Biomédicas, UNAM

VIROLOGY**V-1**

Analysis of cellular and viral RNA-expression by RNAseq in normal human cells infected with adenovirus 5. **Lourdes Anzures**, Paloma Hidalgo, Armando Hernández, Thomas Dobner, Ramón A. Gonzalez. Instituto de Biotecnología, UNAM

V-2

Antiviral activity of *Walteria americana* L. extracts against human rotavirus strains. **Juan Francisco Contreras Cordero**, Griselda Edith Menchaca Rodríguez, Carlos Eduardo Hernández Luna, Licet Villarreal Treviño, Cristina Rodríguez Padilla, Reyes S. Tamez Guerra. Facultad de Ciencias Biológicas, Universidad Autónoma de Nuevo León

V-3

Viral incidence and diversity in strawberry fields of Irapuato, Mexico. **Carlos Alberto Contreras-Paredes**, Laura Silva-Rosales, Pedro Antonio Dávalos-González, Alba Estela Jofre-Garfias. Departamento de Ingeniería Genética, CINVESTAV - IPN-Unidad Irapuato

V-4

Missense mutations identified into T-cell and B-cell epitopes in the Surface Antigen (HBsAg) of Hepatitis B Virus (HBV) Genotype H. **David A. Fernández-Galindo**, Juan Armendáriz-Borunda, Francisco Sánchez-Ávila, Lucina Bobadilla-Morales, Pedro Gómez-Quiróz, Raúl Pérez-Gómez, Daniel Ruíz-Romero, Sara Sixtos-Alonso, Laura V. Sánchez-Orozco. Instituto de Biología Molecular en Medicina y Terapia Génica, CUCS, Universidad de Guadalajara

V-5

Bilirubin defines cytokine profiles by modulating STATs function during hepatitis A virus infection in children. **Flor P. Castro-García**, Karla F. Corral-Jara, Jorge L. Trujillo-Ochoa, Griselda Escobedo-Melendez, Monserrat A. Sandoval-Hernandez, Yvonne Rosenstein, Mauricio Realpe, Arturo Panduro, Nora A. Fierro. Centro Universitario de Ciencias de la Salud, Universidad de Guadalajara

V-6

HPV Infection Modulates the phosphoproteome of Cervical Cells of Women with a High Grade Squamous Intraepithelial Lesion (HSIL). **José Ricardo García-Flores**, Eduardo Carrillo-Tapia, Mavil López-Casamichana, Elizabeth Álvarez-Sánchez, Laura Itzel Quintas-Granados, Lilia López-Canovas, Israel López-Reyes. Universidad Autónoma de la Ciudad de México

V-7

Coinfection study of HPV in biopsies from Mexican patients with histopathological diagnosis of intraepithelial lesions and cervical cancer. **Lucia Gómez López**, Mavil López Casamichana, Elisa Irene Azuara Liceaga, Laura Itzel Quintas Granados, Eduardo Carrillo Tapia, Lilia López Cánovas, Israel López Reyes. Genomic Sciences Postgraduate, UACM

V-8

Effect of adenovirus infection on the activity of the Interferon Regulatory Factor 3 (IRF3). **Aurora Betsabé Gutiérrez Balderas**, Ramón A. González. Laboratorio de Virología Molecular, Facultad de Ciencias, UAEM

V-9

Effect of recruitment p53 to adenoviral replication centers on DNA viral synthesis. **Raúl Eduardo López Antonio**, Ramón A. González García-Conde, Facultad de Ciencias, UAEM

V-10

Detection of Equine Influenza in the State of Nuevo León. **Claudia Bernardette Plata Hipólito**, César Iván Romo Sáenz, Cristina Rodríguez Padilla, Reyes S. Tamez Guerra, Juan Francisco Contreras Cordero. Facultad de Ciencias Biológicas, UANL

V-11

Molecular analysis of VP4 and VP7 of human rotavirus strains isolated in Sonora, México. **Guadalupe de Jesús Quintero Ochoa**, María Patricia Calleja García, Patricia Tamez Guerra, Adolfo Virgen Ortíz,

Guadalupe González Ochoa. Departamento de Ciencias Químico Biológicas y Agropecuarias, División de Ciencias e Ingenierías, Universidad de Sonora

V-12

Effect of the HPV-16 E5 gene expression on the level and location of β -catenin protein in the $\alpha 6$ -integrin^{bri}CD71^{dim} subpopulation of HaCaT cells. **Daniel Arturo Rangel De León**, Alicia María Reveles Espinoza y José Efraín Garrido Guerrero. Departamento de Genética y Biología Molecular. CINVESTAV-IPN Zacatenco

V-13

Effect of the HPV-16 E5 expression on the abundance of $\alpha 6$ -integrin^{bri}CD71^{dim} stem-like cells of human keratinocytes HaCaT. **Alicia María Reveles Espinoza**, Juan Alberto Ponciano Gómez, Pedro Chávez Olmos y José Efraín Garrido Guerrero. Departamento de Genética y Biología Molecular. CINVESTAV-IPN. Zacatenco

V-14

Comparative 2D-DIGE analysis of depleted serum samples of patients with 2009 influenza A (H1N1). **Juan Pablo Reyes-Grajeda**, María Isabel Ruiz Olmedo, Diana I. Aparicio-Bautista, Rodolfo Ayala Lira, Diana Ortiz Soriano, German Gutiérrez Campos, Sergio A. Román-González, David Escobedo-Ríos, Mariana Ortiz-Casas, Nadia Luz López Espinosa, Victor Manuel Bautista de Lucio. National Institute of Genomic Medicine (INMEGEN)

V-15

Genetic and antigenic relationship of rotavirus strains in stools of children in Northern Mexico. **César Iván Romo Sáenz**, Griselda Edith Menchaca Rodríguez, Carlos Eduardo Hernández Luna, Licet Villareal Treviño, Cristina Rodríguez Padilla, Reyes S. Tamez Guerra, Juan Francisco Contreras Cordero. Facultad de Ciencias Biológicas, Universidad Autónoma de Nuevo León.

V-16

Genotyping and Analysis of Mutations in the Core Protein of Hepatitis C Virus (HCV) isolated from Mexican Patients with Chronic Hepatitis C. **Laura V. Sánchez-Orozco**, Miriam F. Ayón-Pérez, Sina Feustel, Mario Salas-Estrada, Miguel A. Jiménez-Luévano, Iván Lyra-González, Alfredo Corona-Rivera, Sánchez-Parada L, Juan Armendáriz-Borunda. Instituto de Biología Molecular en Medicina y Terapia Génica, CUCS, U de G.

V-17

Effect of mutations in the hydrophobic core of E1B 55kDa on the adenoviral replication cycle. **Berto Tejera Hernández**, Grisel Ballesteros Hernández, Ángel Santiago, Nina Pastor Colón, Peter Groitl, Thomas Dobner, Ramón A González. Facultad de Ciencias, UAEM

V-18

Heterologous insertions in Parvovirus B19 VP2 protein: effect on virus-like particles assembly in vitro. **Areli del Carmen Morán García**, Ismael Bustos Jaimes. Departamento de Bioquímica, Facultad de Medicina, UNAM