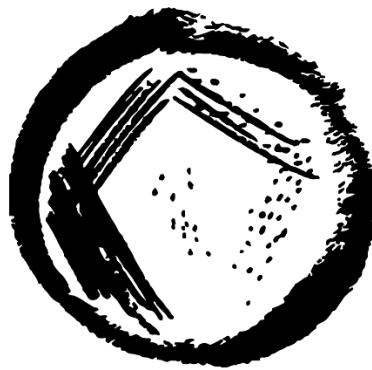




XLI Congreso Nacional de  
Microbiología AMM  
Oaxaca 2019



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VI Congreso Rama BBMB-SMB  
Oaxaca 2019

***Scientific Program***

Comité Organizador y  
Mesa Directiva 2017 – 2019  
Asociación Mexicana de Microbiología

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VI Congreso de Bioquímica y Biología Molecular de Bacterias  
Sociedad Mexicana de Bioquímica

*Dra. María Teresa Estrada García*

*Dra. María de Lourdes Girard Cuesy*

*Dr. José Luis Puente García*

## INFORMATION FOR ORAL PRESENTATIONS

All oral presenters must check in with the technician at the Plaza II-III Room. If using a PowerPoint (or any other computer) presentation, please note you need to bring it on a Memory stick and load it on the congress' computer at least 1 hour before the start of your session.

Please note that the congress' computer is being supplied with Office 2010.

If combining video films with PowerPoint, please make sure to check it in the session room where your lecture is taking place during a coffee or lunch break prior to your session, at least 30 minutes before the start of the session.

**Important note for Macintosh users.** In order to use MAC presentations on a PC compatible computer please note that you need to prepare it according to the instructions below, before bringing it to the Room:

1. Use a common font, such as Arial, Times New Roman, Verdana, etc. (special fonts might be changed to a default font on a PowerPoint based PC).
2. Insert pictures as JPG files (and not TIF, PNG or PICT - these images will not be visible on a PowerPoint based PC ).
3. Use a common movie format, such as AVI and WMV (MOV files from QuickTime will not be visible on a PowerPoint based PC).

## INFORMATION FOR POSTER PRESENTATIONS

Please refer to the scientific program for the board number assigned to each poster.

Posters are to be mounted, in accordance with the board number, by 08:30 hours on the day of presentation.

Kindly ensure your poster is removed at the end of the poster networking session. The congress secretariat and organizers cannot take responsibility for posters that are not removed by this time.

Presenters are requested to stand by their posters, to answer questions, from 18:15 to 20:15, as follows:

*Odd poster board number Presentation: Monday October 28<sup>th</sup>*

*Even poster board number Presentation: Tuesday October 29<sup>th</sup>*

**XLI National Microbiology Meeting of the  
Mexican Association of Microbiology (AMM)**

**VI Meeting of Biochemistry and Molecular Biology of Bacteria (BBMB)**

**P r o g r a m**

Oaxaca, Oax, Mexico. October 27 - 31, 2019

**Sunday, October 27**

11:00 – 17:00	Registration
14:00 – 17:00	Lunch
16:25 – 17:00	Opening Ceremony
17:00 – 18:00	Opening Talk I <b>Susana López Charretón</b> <b>Rotavirus strategies to control the antiviral response of the cell: A dynamic story</b> Instituto de Biotecnología, UNAM Chair: <b>David Romero</b>
18:00 – 19:00	Opening Talk II <b>Gabriel Núñez</b> <b>Host-Microbiota Interactions in Health and Disease</b> Department of Pathology, University of Michigan Chair: <b>José Luis Puente</b>
19:00 – 21:00	Welcome Cocktail

**Monday, October 28**

7:00 – 9:00	Breakfast
	<i>Symposium I</i> <b>BACTERIAL SIGNALING AND METABOLISM</b> Chair: <b>Gloria Soberón</b>
9:00 – 9:30	Structure, functional prediction, and phenotyping studies in genes encoding proteins involved in cyclic-di-GMP in <i>Azospirillum</i> <i>Beatriz Eugenia Baca</i> CICM – Benemérita Universidad Autónoma de Puebla
9:30 – 10:00	Exploitation of public goods and population collapses in <i>Pseudomonas aeruginosa</i> <i>Rodolfo García Contreras</i> Facultad de Medicina, UNAM
10:00 – 10:30	Rethinking secondary metabolism in bacteria: from evolution to function <i>Francisco Barona Gómez</i> Unidad de Genómica Avanzada, LANGEBIO CINVESTAV

10:30 – 11:00	The tRNA fragments exported by <i>Escherichia coli</i> cells may be protein synthesis by-products generated on ribosomes <i>Eva Jacinto Loeza</i> CINVESTAV Unidad Zacatenco
11:00 – 11:30	Coffee Break
	<i>Symposium II</i> <b>TUBERCULOSIS</b> Chair: <b>Rogelio Hernández Pando</b>
11:30 – 12:00	The role of Hepatocyte Growth Factor in experimental pulmonary tuberculosis. Therapeutical implications <i>Rogelio Hernández Pando</i> Instituto Nacional de Nutrición “Salvador Zubirán”
12:00 – 12:30	New insights into the methylation of heparin binding hemagglutinin adhesin (HbhA) of <i>Mycobacterium tuberculosis</i> <i>Clara Inés Espitia Pinzón</i> Instituto de Investigaciones Biomédicas, UNAM
12:30 – 13:00	Towards the constitution of an epidemiological atlas of multidrug-resistant tuberculosis in Mexico <i>José Antonio Enciso Moreno</i> Unidad de Investigación Biomédica de Zacatecas, IMSS
13:00 – 13:30	Nicotine induces virulence genes in <i>Mycobacterium tuberculosis</i> <i>Bruno Rivas Santiago</i> Unidad de Investigación Biomédica de Zacatecas, IMSS
13:30 – 15:00	Lunch
15:00 – 16:00	Plenary Lecture I <b>Urs Jenal</b> <b>From Cell Polarity to Bacterial Virulence Control</b> University of Basel - Biozentrum Switzerland Chair: <b>Dimitris Georgellis</b>
16:00 – 16:15	Coffee break
	<i>Symposium III</i> <b>CELL DYNAMICS I</b> Chair: <b>Bianca Anabel Amézquita</b>
16:15 – 16:30	Isolation, genotyping and antimicrobial resistance of Shiga toxin-producing <i>Escherichia coli</i> <i>Bianca Anabel Amézquita López</i> Facultad de Ciencias Químico Biológicas, Universidad Autónoma de Sinaloa
	<i>Student presentations</i>
16:30 – 16:45	Phenotypic plasticity by reaction norms in <i>Bacillus</i> spp. species from wild environments from Cuatro Ciénegas Coahuila desert facing physical

	<p>environmental factors  <i>Enrique Hurtado-Bautista</i>  Laboratory of Molecular Biology and Microbial Ecology - CINVESTAV Irapuato</p>
16:45 – 17:00	<p>Establishment of a protein concentration gradient in the outer membrane requires two diffusion limiting mechanisms  <i>Luis David Ginez</i>  Instituto de Investigaciones Biomédicas, UNAM</p>
17:00 – 17:15	<p>Analysis of Gp37 function of the coliphage mEp021  <i>Elissa Paulina Ballinas Turrén</i>  CINVESTAV Unidad Zacatenco</p>
17:15 – 18:15	<p>Plenary Lecture II  <b>David Pérez Morga</b>  <b>Human African Trypanosomiasis evolution and Cell Death in <i>Trypanosoma brucei brucei</i></b>  Université Libre de Bruxelles  Belgium  Chair: <b>Gabriela Olmedo</b></p>
18:15 – 20:15	Poster Session Odd Numbers

## Tuesday, October 29

7:00 – 9:00	Breakfast
	<p><i>Symposium IV</i>  <b>BACTERIAL RESISTANCE AND ITS CLINICAL, EPIDEMIOLOGICAL AND ENVIRONMENTAL RELEVANCE</b>  Chair: <b>Guadalupe Aguilera</b></p>
9:00 – 9:30	Surveillance of <i>Pseudomonas aeruginosa</i> <i>Alejandra Aquino Andrade</i> Instituto Nacional de Pediatría
9:30 – 10:00	Epidemiology of multidrug-resistant <i>Neisseria gonorrhoeae</i> in Mexico City: crisis in a complicated context? <i>Guadalupe Aguilera Arreola</i> Escuela Nacional de Ciencias Biológicas, IPN
10:00 – 10:30	Methicillin-resistant <i>Staphylococcus aureus</i> and its persistence in hand hygiene <i>Sara Ariadna Ochoa Pérez</i> Hospital Infantil de México “Federico Gómez”
10:30 – 11:00	Una vida dedicada al estudio de la Bacteriología Médica en México: en homenaje a la Doctora Silvia Giono Cerezo, política y bacterióloga por convicción <i>Maria Teresa Estrada García</i> CINVESTAV Unidad Zacatenco
11:00 – 11:30	Coffee break

	<p><i>Symposium V</i></p> <p style="text-align: center;"><b>MICROBIOME</b></p> <p>Chair: <b><i>Eria Rebollar</i></b></p>
11:30 – 12:00	Amphibian-Microbial symbioses: understanding the protective role of skin bacteria against emerging diseases <i>Eria Rebollar Caudillo</i> Centro de Ciencias Genómicas, UNAM
12:00 – 12:30	Microbiome of cycad's coralloid roots: co-evolution of bacterial communities encoding niche-specific biosynthetic gene clusters <i>Angélica Cibrián Jaramillo</i> Unidad de Genómica Avanzada, Langebio CINVESTAV
12:30 – 13:00	The distal colon microbiota of Type 2 Diabetes, Obesity, and Metabolic Syndrome triad in Mexico <i>Jaime García Mena</i> CINVESTAV Unidad Zacatenco
	<i>Student presentations</i>
13:00 – 13:15	Bacteria and Archaea distribution in subsurface sediments of the Gulf of Mexico <i>Adrián Martínez Santana</i> Instituto de Biotecnología, UNAM
13:15 – 13:30	Recognition of human colostrum bacteria by IgA subtypes and their effect on microbiota establishment in the newborn <i>Erick Sánchez Salguero</i> CINVESTAV Unidad Zacatenco
13:30 – 15:00	Lunch
15:00 – 16:00	Plenary Lecture III <p style="text-align: center;"><b>Rita Tamayo</b>  <b><i>Mechanisms of Phenotypic Heterogeneity in Clostridioides difficile</i></b>  University of North Carolina at Chapel Hill  USA</p> <p>Chair: <b><i>José Luis Puente</i></b></p>
16:00 – 16:15	Coffee break
	<p><i>Symposium VI</i></p> <p style="text-align: center;"><b>GENE REGULATION</b></p> <p>Chair: <b><i>Ma. Teresa Estrada</i></b></p>
16:15 – 16:45	Defining the role of toxin-antitoxin systems in the persistence phenotype of the intracellular pathogen <i>Burkholderia pseudomallei</i> <i>Alfredo Torres</i> University of Texas, USA
16:45 – 17:00	<i>Student presentations</i> The CtrA regulon of <i>Rhodobacter sphaeroides</i> favors adaptation to particular life styles <i>José de Jesús Hernández Valle</i> Instituto de Investigaciones Biomédicas, UNAM

17:00 – 17:15	CreR, an EIL domain-containing protein, positively regulates the expression of the <i>ecp</i> fimbrial operon in <i>Citrobacter rodentium</i> <i>María Inés Isidro Coxca</i> Instituto de Biotecnología, UNAM
17:15 – 17:30	The quorum sensing system NprR-NprRB contributes to spreading and fitness in biofilms of <i>Bacillus thuringensis</i> <i>Abel Alberto Verdugo Fuentes</i> Centro de Investigación en Alimentación y Desarrollo, A.C.
17:30 – 17:45	Characterization of a <i>Rhizobium etli</i> OmpR-type regulator that participates in motility and nitrogen fixation with bean plants <i>Susana Rodríguez</i> Centro de Ciencias Genómicas, UNAM
17:45 – 18:00	The CRISPR-Cas system is involved in the synthesis of outer membrane proteins in <i>Salmonella enterica</i> serovar Typhi <i>Sarahi Rodríguez Gutiérrez</i> Instituto de Biotecnología, UNAM
18:00 – 18:15	ZMP dependent activation of response regulators in <i>Escherichia coli</i> <i>Oscar Jair Vázquez Ciros</i> Instituto de Fisiología Celular, UNAM
18:15 – 20:15	Poster Session Even Numbers

### Wednesday, October 30

7:00 – 9:00	Breakfast
	<i>Symposium VII</i> <b>FOOD MICROBIOLOGY</b> Chair: <b><i>Agustín López-Munguía</i></b>
9:00 – 9:30	Synthesis of glycopolysaccharides in traditionally fermented foods <i>Agustín López Munguía</i> Instituto de Biotecnología, UNAM
9:30 – 10:00	Detection and identification of yeasts from musts of three Mexican distilled beverages <i>Francisco Ruiz Terán</i> Facultad de Química, UNAM
	<i>Student presentations</i>
10:00 – 10:15	The effect of the number of chambers on the performance of a <i>MESync</i> that produces succinic acid by <i>A. succinogenes</i> Sara Abaunza Alvarado CINVESTAV Unidad Zacatenco
10:15 – 10:30	Development of a methodology for the genetic transformation of <i>Agave tequilana</i> Weber var. Azul mediated by <i>Agrobacterium tumefaciens</i> and based on organogenesis <i>Edith Alheli Bernabé Pérez</i> Instituto Tecnológico de Oaxaca

10:30 – 10:45	Phenotypic trait diversity of budding yeast populations associated to Agave fermentation in Mexico <i>Porfirio Alberto Gallegos Casillas</i> Unidad de Genómica Avanzada, Langebio Cinvestav Unidad Irapuato
10:45 – 11:00	Biosurfactant and/or Bioemulsifier Production by <i>Gordonia sp.</i> R4M20CR Utilizing Agro-industrial Waste Products <i>Isaac Alberto Vigil García</i> Facultad de Ciencias Químicas, UACH
11:00 – 11:30	Coffee Break
	<b>Symposium VIII</b>  <b>INDUSTRIAL MICROBIOLOGY IN MEXICO: FROM THE EMERGING TO THE TRANSNATIONAL COMPANY</b>  Chair: <b>Cesar Hernández</b>
11:30 – 12:00	Vaccine manufacturing. A global challenge requiring specialized people. A complex journey in a highly regulated industry <i>Eduardo Estrada Obregón</i> SANOFI
12:00 – 12:30	Technological platforms based on industrial microbiology and its role solving social problems, a third-party laboratory perspective <i>Cecilia Padierna Mota</i> Laboratorio de Especialidades Inmunológicas
12:30 – 13:00	Success cases of biotechnology in Mexico <i>Néstor Octavio Pérez Ramírez</i> PROBIOMED
13:00 – 13:30	Different data science approaches for the development and obtaining bacterial functional secrets for industry improvement <i>Violeta Larios Serrato</i> Winter Genomics
13:30 – 15:00	Lunch
15:00 – 16:00	Plenary Lecture IV  <b>Cammie F. Lesser</b> <b>Leveraging bacterial secretion systems to develop therapeutic designer probiotics</b> Department of Microbiology and Immunobiology Massachusetts General Hospital Harvard Medical School USA  Chair: <b>Bertha González-Pedrajo</b>
16:00 – 16:15	Coffee break

	<p><i>Symposium IX</i></p> <p style="text-align: center;"><b>CELL DYNAMICS II</b></p> <p>Chair: <b>Juan José Valdez</b></p>
16:15 – 16:30	<p>From molecular epidemiology to the biocontrol of <i>Staphylococcus aureus</i> in bovine mastitis  <i>Juan José Valdez Alarcón</i>          FMVZ, Universidad Michoacana de San Nicolás de Hidalgo</p>
	<i>Student presentations</i>
16:30 – 16:45	<p>Silencing of unused sectors of the <i>E. coli</i> proteome using CRISPRi and its application in synthetic biology  <i>Miguel Ángel Bello González</i>          Centro de Ciencias Genómicas, UNAM</p>
16:45 – 17:00	<p>Study of enzymatic promiscuity at the enzyme level, family and metabolic pathway, and its role in genomic mining of natural products  <i>Nelly Sélem Mojica</i>          LANGEBIO CINVESTAV</p>
17:00 – 17:15	<p>Single-cell plasmid dynamics in fluctuating environments  <i>José Carlos Ramón Hernández Beltrán</i>          Centro de Ciencias Genómicas, UNAM</p>
17:15 – 18:15	<p>Closing Lecture  <b>Antonio Lazcano Araujo</b>  <b>Oxygen and biological evolution: some major biogeochemical consequences</b>          El Colegio Nacional / Facultad de Ciencias, UNAM</p> <p>Chair: <b>Cesar Hernández</b></p>
18:15 – 18:30	Final Announcements and Closing Ceremony
18:30	Business meeting AMM
21:00	Dinner and Dancing

All oral presentations will be held in the Grand Plaza II & III Rooms

All poster presentations will be held in the Grand Plaza I & Platino Rooms

## POSTER PRESENTATIONS

*Odd poster board number Presentation: Monday October 28<sup>th</sup>*

*Even poster board number Presentation: Tuesday October 29<sup>th</sup>*

### CELL BIOLOGY

1.	<b>Viability assessment and morphological changes of mycobacteria during dormancy induced by hypoxia and starvation.</b> Diana Angelica Aguilar Ayala, Ruben Zaragoza Contreras, Addy Cecilia Helguera Repetto, Jorge Francisco Cerna Cortés, Sandra Rivera Gutiérrez, Robert A. Cox and Jorge Alberto Gonzalez Y Merchand. Instituto Nacional de Perinatología Isidro Espinosa de los Reyes (InPer)
2.	<b>Cloning, expression and purification of PilW and PilV pilins of the Type IV pili of <i>Acidithiobacillus thiooxidans</i>.</b> Elvia F. Alfaro Saldaña, J. Viridiana García Meza, J. Alfredo Méndez Cabañas. Geomicrobiología, Metalurgia. Instituto de Física. Universidad Autónoma de San Luis Potosí
3.	<b>A new proposal for the study of proteins that bind to cell wall of peptidoglycan.</b> Arenas Rodríguez Thelma, Osorio Franco Aurora, Poggio Ghilarducci Sebastián. Department of Molecular Biology and Biotechnology, Biomedical Research Institute, UNAM
4.	<b>Ultrastructural damage in <i>Streptococcus mutans</i> incubated with saliva and histatin 5.</b> Ana María Fernández Presas, Blanca Esther Blancas Luciano, Yamili Marquez Torres, Ingeborg Becker Fauser, Roxana Hayde Rodríguez Barrera, Rosmary Toloza Medina, José Delgado Domínguez, Jose Luis Molinarí Soriano. Departamento de Microbiología y Parasitología. Facultad de Medicina, UNAM
5.	<b>Substrate recognition by the sorting platform in the injectisome.</b> Arely Ivonne Marcos Vilchis, Norma Espinosa Sánchez and Bertha González Pedrajo. Instituto de Fisiología Celular, UNAM
6.	<b>Mycelium induction in <i>Candida albicans</i> and biochemical characterization of Glucosamine-6-phosphate synthase.</b> Silvia Gabriela Pérez Ramírez, Everardo López Romero. División de Ciencias Naturales y Exactas, Universidad de Guanajuato
7.	<b>Effect of antimicrobial peptide LL-37 and KR-20 on <i>Trichomonas vaginalis</i> viability.</b> Ramírez Ledesma María Guadalupe, Arroyo López C. Cecilia, Alva Murillo Patricia Nayeli, Ávila Muro Eva Edilia. Departamento de Biología, División de Ciencias Naturales y Exactas, Universidad de Guanajuato
8.	<b>Outer membrane vesicles from <i>Rhodobacter sphaeroides</i>.</b> Benjamín Vega Baray, Sebastián Poggio, Georges Dreyfus, Laura Camarena. Instituto de Investigaciones Biomédicas, UNAM

### STRUCTURAL BIOLOGY

9.	<b>Analysis of the FlgT-MotF interaction in the flagellar system 1 of <i>Rhodobacter sphaeroides</i>.</b> David Rodríguez, Méndez, C. Domenzain, S Poggio, A. Osorio, G. Dreyfus, L. Camarena. Instituto de Investigaciones Biomédicas, UNAM.
10.	<b>Characterization of the open reading frame <i>rsp_1315</i> present in the flagellar set 2 of <i>Rhodobacter sphaeroides</i>.</b> Fernanda Vélez González, Benjamín Vega Baray, Sebastián Poggio, Georges Dreyfus, Laura Camarena. Instituto de Investigaciones Biomédicas, UNAM

### SYSTEMS BIOLOGY

11.	<b>Characterization of the temporal variability of the SOS response in individual <i>Escherichia coli</i> cells in the presence of beta-lactam antibiotics.</b> Oscar Bruno Aguilar Luviano, Ayari Fuentes Hernández & Rafael Peña Miller. Laboratorio de biología de sistemas y biología sintética, Centro de Ciencias Genómicas, UNAM.
12.	<b>The tragedy of the commons: A selective integration of methods as the best strategy for DNA-sequence-based inference of regulatory networks.</b> Juan M. Escorcia Rodríguez, Maria J. Palma Martínez, Marian Domínguez Mirazo, Elias R. Ruiz Morales, Luis F. Gutiérrez Mondragón, Diego Fernández, and Julio A. Freyre González. Regulatory Systems Biology Research Group, Laboratory of Systems and Synthetic Biology, Center for Genomics Sciences, UNAM.

13.	<b>Lessons from Abasy Atlas v2.2: complexity, completeness, quality and learning of gene regulatory networks.</b> Julio Augusto Freyre González, Juan Miguel Escorcia Rodríguez, Adrián Isaac Campos González, and Marco Antonio Tello Palencia. Laboratory of Systems and Synthetic Biology, Center for Genomic Sciences, UNAM.
14.	<b>System-level characterization of the evolution of the gene regulatory networks of <i>Escherichia coli</i>, <i>Bacillus subtilis</i>, and <i>Corynebacterium glutamicum</i>.</b> Luis F. Gutiérrez Mondragón, Gabriel Moreno Hagelsieb, and Julio A. Freyre González. Laboratory of Systems and Synthetic Biology, Center for Genomic Sciences, UNAM.
15.	<b>Ecological dynamics of auxotrophic microbial populations.</b> Daniela Reyes González, Rafael Peña Miller, Ayari Fuentes Hernández. Laboratory of Systems Biology and Synthetic Biology, Center of Genomic Science, UNAM.
16.	<b>Inferring gene regulatory networks from transcriptomic data: effects of normalization and combinatorial integration on predictions.</b> Juan Miguel Escorcia Rodríguez, Marco Antonio Tello Palencia, Andrea Zorro Aranda, Roberto Olayo Alarcón, Luis Fernando Altamirano Pacheco, Estefani Gaytán Nuñez, Ericka Montserrat Hernández Benítez, Julio A. Freyre González. Laboratory of Systems and Synthetic Biology, Center for Genomic Sciences, UNAM.

## BIOTECHNOLOGY AND INDUSTRIAL MICROBIOLOGY

17.	<b>Standardization of the conditions of growth and production of the δ endotoxin of <i>Bacillus thuringiensis</i> to be used in the biological control of insect pests.</b> Alma Lilia Antonio Cruz, Amalia Ventura Almaraz Hernández, López Sánchez Claudia, Palma Cruz Felipe de Jesús. National Technologic of Mexico/Oaxaca Technologic Institute.
18.	<b>Characterization of <i>Rhodococcus ruber</i> MSA14: a bacterium to degrade high-molecular-weight polycyclic aromatic hydrocarbons.</b> Cynthia Lizzeth Araujo Palomares, Cristina Quezada-Hernández, José Vinicio Macías Zamora, Nancy Ramírez Álvarez, Hortencia Silva Jiménez. Instituto de Investigaciones Oceanológicas, Universidad Autónoma de Baja California
19.	<b>Plant growth promoting mechanisms from heavy metal tolerant <i>Micrococcus</i> strains isolated of contaminated sites in Mexico.</b> Ivan Arroyo Herrera, Brenda Román Ponce, En Tao Wang Hu, Paulina Estrada de los Santos, María Soledad Vásquez Murrieta. ENCB. IPN
20.	<b>Cytotoxic activity of microalgae isolated from Cuatro Cienegas, Coah. in human cancer cell lines.</b> Faviola Tavares Carreón, Héctor F. Arocha Garza, Susana de la Torre Zavala, Valeria Souza, Hamlet Avilés Arnaut. Facultad de Ciencias Biológicas, Universidad Autónoma de Nuevo León
21.	<b>Pilot study for the evaluation of antimicrobial and antibiofilm activity of two varieties of walnut shell extracts (<i>Carya illinoensis</i>) from Chihuahua State on a clinical <i>Staphylococcus aureus</i> strain.</b> Sebastián Valdez Gutiérrez, Blanca Estela Rivera Chavira, Carmen Oralía Meléndez Pizarro, Miguel Ángel Flores Villalobos, Angélica Holguín López, Hilda Amelia Piñón Castillo, Erasmo Orrantia Borunda, Germán Ayala Sandoval. Universidad Autónoma de Chihuahua.
22.	<b>Isolation of Steffimycin compound from endophytic <i>Streptomyces scabrisporus</i> strain NF3 and screening for their antimicrobial activities.</b> Nathalia Badillo Mantilla, Ajit Kumar Passari, Jose Fausto Rivero Cruz and Sergio Sánchez. Universidad Industrial de Santander, Colombia.
23.	<b>NP-Hoc protein fusion design and expression in <i>E. coli</i> BL21 for a potential influenza A vaccine.</b> Francisco de Jesús Balderas Cisneros, Francisco Ricardo Rodríguez Recio, Carlos Enrique Escárcega González, José Rubén Morones Ramírez. Universidad Autónoma de Nuevo León, Facultad de Ciencias Químicas, Centro de investigación en biotecnología y nanotecnología (CIBYN).
24.	<b>Engineering <i>Escherichia coli</i> membrane lipid composition: towards a robust chassis strain.</b> Bedoya Pérez Leidy Patricia, Utrilla José, Sohlenkamp Christian. CCG. UNAM.
25.	<b>Spray drying and antibacterial activity of the aqueous extract of <i>Agave cupreata</i>.</b> Cinthya Vanessa Calderón Peralta, Liliana Alamilla Beltrán, Mario Márquez Lemus, Ricardo Salazar, Natividad Castro Alarcón, María del Pilar Torres Nicasio, Patricia Álvarez Fitz. Facultad de Ciencias Químico Biológica, Universidad Autónoma de Guerrero.
26.	<b>Isolation and characterization of the antagonistic strain <i>Alcaligenes faecalis</i> MNCu3.</b> María Fernanda Cedeño Toscano, Leslie Mariana Morales Ruiz, Anuar Salazar Gómez, Fernando Uriel Rojas Rojas. Escuela de Ciencias de la Salud. Universidad del Valle de México.
27.	<b>Production and partial characterization of a cellulase raw extract from a mexican <i>Streptomyces</i> strain.</b>

	<i>Samuel Celaya Herrera, José E. Barboza Corona</i> : Graduate Program in Biosciences. Laboratory of Biotechnology and Molecular Microbiology. Life Science Division. University of Guanajuato
28.	<b>Potential of biocontrol and molecular characterization of a bacterial agent of the <i>Pseudomonas</i> genus.</b> <i>Ismael Fernando Chávez Díaz, Sergio Aranda Ocampo, Andrés Aguilar Granados, Bárbara Hernández Macías, Emma Zavaleta Mejía.</i> Laboratorio de Recursos Genéticos Microbianos, Centro Nacional de Recursos Genéticos INIFAP
29.	<b>Antifungal activity of <i>Paenibacillus polymyxa</i> NMA1017 extracellular metabolites in biological control.</b> <i>Belén Chávez Ramírez, Melissa Mondragón Talonia, María Soledad Vásquez Murrieta, Paulina Estrada de los Santos.</i> ENCB IPN
30.	<b>Effect of fumarate in microbial communities in sediment microbial fuel cells with sediments from Coatzacoalcos River.</b> <i>Alan Cornejo Martell, Berenice Cruz, Luz Breton Deval, Alberto Álvarez Gallegos, Emmanuel Alvizo, José Fernando García, Katy Juárez.</i> Instituto de Biotecnología, Universidad Nacional Autónoma de México
31.	<b>Promotion of the <i>zea mays</i> growth by mixed bacterial inoculants isolated from jala maize environment.</b> <i>Esaú De la Vega Camarillo, Josimar Sotelo Aguilar, Bibiana Ríos Galicia, Lourdes Villa Tanaca, Ramón Arteaga Garibay, César Hernández Rodríguez.</i> Departamento de Microbiología, Escuela Nacional de Ciencias Biológicas, IPN
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62.	<b>Molecular identification of yeasts in cider from Zacatlán.</b> Jaquelinne Montiel Rivera, Amanda Gabriela Alarcón Barrios, Ernestina Valadez Moctezuma, Guillermo Pérez Esteban. Departamento de ingeniería en industrias alimentarias. Instituto Tecnológico Superior de la Sierra Norte de Puebla.
63.	<b>Influence of heavy metals on biofilm production in bacteria isolated from contaminated soils.</b> Adriana Perez Sanchez, María Soledad Vásquez Murrieta, Paulina Estrada de los Santos. Escuela Nacional de Ciencias Biológicas, IPN.
64.	<b>Effect of <i>Pseudomonas aeruginosa</i> rhamnolipids over mature biofilms of multiresistant clinical isolates.</b> Alejandro Plascencia Terrazas, Guadalupe Virginia Nevárez Moorillón, Jair Carrazco Palafox, María Olga González Rangel. Laboratorio de Microbiología III, Facultad de Ciencias Químicas, Universidad Autónoma de Chihuahua,
65.	<b>A case study: Obtaining of minimally functional microbial consortia from CR1 consortium using dilution to extinction for Lignocelulose degradation.</b> Ángel Rafael Pool Cen, Rodrigo Guzmán Pedraza, Mónica Noel Sánchez González. Universidad Autónoma de Yucatán. Facultad de Ingeniería Química.
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80.	<b><i>Pseudomonas stutzeri</i> MLA9, a marine bacterium with high potential to degrade pyrene.</b> Cynthia Lizzeth Araujo Palomares, Ileana Sarahí Ramos Mendoza, Hortencia Silva Jiménez. Instituto de Investigaciones Oceanológicas, Universidad Autónoma de Baja California.
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86.	<b>Etiological agent prevalence for ecosystem health monitoring in mangroves of the Yucatán peninsula, México.</b> Muilan Mahendhiran, Joanna María Ortiz Alcántara, Javier Apodaca Hernández, Germán Giacoman Vallejo, Jorge Herrera Silveira, María Leticia Arena Ortiz. Facultad de Ciencias, UNAM.
87.	<b>Isolation and pre-characterization of microorganisms from “Cerro El Toscano” soil, Michoacán.</b> Héctor Avalos Flores, César Darío Méndez Horta, José O. Reyes Sánchez. Universidad de la Ciénega del Estado de Michoacán de Ocampo.
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90.	<b>Bacterial diversity in karst sinkholes (cenotes) from the Puerto Morelos and Tulum touristic zones.</b> Karina Hernández-García, Jazmín Santillán, Rafael López Martínez, Martín Merino Ibarra, Rocío J. Alcántara-Hernández. Posgrado en Ciencias del Mar y Limnología, Instituto de Geología, UNAM
91.	<b>Experimental evolution to explore phenotypic plasticity to temperature in wild type strains from a natural environment.</b> Enrique Hurtado Bautista, Laura Sánchez Pérez, África Islas Robles, Gabriel Moreno Hagelsieb, and Gabriela Olmedo Álvarez. Laboratory of Molecular Biology and Microbial Ecology - CINVESTAV
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	Biología Molecular, CINVESTAV.
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95.	<b>Horizontal transference of virulence genes in <i>E. coli</i> strains isolated from a same geographical area.</b> Jonathan Josué López Islas, Estela T. Méndez Olvera, Carlos A. Eslava Campos, Daniel Martínez Gómez, Andrés López Pérez. División de Ciencias Biológicas y de la Salud, UAM Xochimilco.
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102.	<b>pH dependent Predation by <i>Bdellovibrio bacteriovorus</i> 109J.</b> Tae Moriya, Junichi Yoshimura, Yuki Hoshiko, Rodolfo García Contreras, Toshinari Maeda. Department of Biological Functions Engineering. Kyushu Institute of Technology, Japan
103.	<b>Sphingolipids required for survival of <i>Caulobacter crescentus</i>.</b> Roberto J. Olea Ozuna, Sebastian Poggio Ghilarducci, Ed Bergström, Elva Quiroz Rocha, Jonathan Padilla Gomez, Lourdes Martínez Aguilar, Isabel M. López Lara, Jane E. Thomas Oates and Otto Geiger. Centro de Ciencias Genómicas, UNAM.
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105.	<b>Molecular identification and characterization of bacteria isolated from biofilms in Atetelco, Teotihuacan.</b> Martínez Calixto Yunuen, Ojeda Rivera Guadalupe, Medina Jaritz Nora, Hernández Rodríguez César H., Olvera Ramírez Roxana. Departamento de Botánica. ENCB. IPN.
106.	<b>Isolation, and molecular identification of plant growth promoting bacteria in vegetables and <i>Salix</i> sp. from Chinampa agricultural system in Mexico City, Mexico.</b> Beatriz Mónica Pérez Ibarra, Raúl Motte Nava. Escuela Nacional Colegio de Ciencias y Humanidades, UNAM.
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109.	<b>Lambda red system adjustment for <i>pilA</i> gene mutation in <i>Klebsiella pneumoniae</i>.</b> Denisse Ramírez Mendoza, César I. López Reynoso, Patricia Lozano Zaraín, Rosa del C. Rocha Gracia, Ygnacio Martínez Laguna, Margarita M. P Arenas Hernández and Claudia F. Martínez de la Peña. Centro de Investigacion en Ciencias Microbiológicas, BUAP.
110.	<b>Plant growth-promoting bacteria associated to pioneer plants from El Chichón volcano, Chiapas (Mexico).</b> Clara I. Rincón Molina, Esperanza Martínez Romero, Encarna Velázquez, Marco A. Rogel Hernández, Reiner Rincón Rosales. Tecnológico Nacional de México, Campus Tuxtla.
111.	<b>Development of SCAR markers by Inter-Simple Sequence Repeat (ISSR) analysis for identification of</b>

	<b><i>Fusarium mexicanum</i> and <i>F. pseudocircinatum</i>.</b> Ricardo Santillán Mendoza, Amelia Cristina Montoya Martínez, Daniela Pineda Vaca, Sylvia Patricia Fernández Pavía, Miguel Martínez Trujillo, María Gloria Solís-Guzmán, Gerardo Rodríguez Alvarado. <sup>1</sup> Laboratorio de Patología Vegetal, Universidad Michoacana
112.	<b>Prevalence Of <i>Campylobacter jejuni</i> and <i>Campylobacter coli</i> From Environmental Samples in Culiacan, Sinaloa, Mexico.</b> Marcela Soto Beltrán, Celica Antonela Rodríguez López, Hilary Beltrán Saucedo, Beatriz Quiñones, Ángel Ibarra Rodríguez, Bianca Anabel Amézquita López. Facultad de Ciencias Químico Biológicas, Universidad Autónoma de Sinaloa.
113.	<b>Plasmid construction for CRISPR genetic edition in a no model fungal phytopathogen <i>Sclerotium cepivorum</i> Berk.</b> Luis Mauricio Salazar García, Sandra E. González Hernández, José A. Martínez Álvarez, Mitzi Flores Ponce, Patricia Ponce Noyola. Departamento de Biología. Universidad de Guanajuato.
114.	<b>Shift of the species in a microalgae community exposed to Cu and Zn.</b> Manuel A Sánchez Olvera, Paola Pérez Castro, Andrea E Jiménez Paredes, Marizel Astello García G, J Viridiana García Meza. Geomicrobiología, Metalurgia, UASLP.
115.	<b>Study of the microbial communities of the swamp de Sisal and the El Palmar State Reserve in the Yucatan Peninsula using Next Generation Sequencing tools.</b> Erika Sánchez Ramos and Mario Alberto Martínez Núñez. UMDI-Sisal, Facultad de Ciencias, UNAM
116.	<b>Study of the interaction between RNase II and RNase PH with RNase E of <i>Escherichia coli</i> in vivo.</b> Emmanuel Solís, Marcos E. Jaso Vera, Lilianha Domínguez Malfavón, Jaime García Mena, Ben F. Luisi. CINVESTAV IPN Zacatenco
117.	<b>Bacteriological quality in fresh fish from different aquatic systems from Tabasco State.</b> María de Lourdes Torres Pérez, Rosa Martha Padrón López, Lucero Vázquez Cruz, Luis José Rangel Ruiz. División Académica de Ciencias Biológicas, Universidad Juárez Autónoma de Tabasco.
118.	<b>Pathogenic bacteria in tilapia (<i>Oreochromis niloticus</i>) cultivation.</b> María de Lourdes Torres Pérez, Rosa Martha Padrón López y Lucero Vázquez Cruz. División Académica de Ciencias Biológicas, Universidad Juárez Autónoma de Tabasco.
119.	<b>Characterization of antagonistic bacteria of phytopathogenic fungi obtained from a strawberry orchard with organic management.</b> Alejandra Torres Lara, Mayra Niño González, Francisco Córdoba Andrade, Ulises Esquivel Naranjo, Fidel Landeros Jaime, Rosario Abraham Juárez, José Antonio Cervantes Chávez. Degree in Biology. Autonomous University of Queretaro
120.	<b>Ribosome profiling analysis of a Pth (Ts) <i>E. coli</i> mutant strain.</b> Augusto Uc-Mass, Yuritza Olgún, Eva Jacinto-Loeza, and Gabriel Guarneros. Departamento de Genética y Biología Molecular, CINVESTAV IPN.
121.	<b>Cloning, purification and production of polyclonal antibodies for the detection of Bap adhesin in enterohemorrhagic <i>Escherichia coli</i>.</b> Sergio Iván Vázquez Arellano, María Lilia Cedillo Ramírez, Ignacio Martínez Laguna, Jorge Alberto Girón Ortiz, Cristina Lara Ochoa. Centro de Detección Biomolecular-BUAP.
122.	<b>Identificación de genes involucrados en la hidroxilación de lípidos de membrana en <i>Burkholderia cenocepacia</i> J2315.</b> Maritza Lorena Vences Guzmán, Miguel Ángel Vences Guzmán, Christian Sohlenkamp. Centro de Investigación en Dinámica Celular, UAEM.
123.	<b>Studies of microbial communities associated to the root of <i>Typha spp.</i> exposed to a mixture of diclofenac and naproxen in a horizontal wetland of subsurface Flow.</b> Ana Laura Zapata Morales, Ma. Catalina Alfaro de la Torre Hernández Morales Alejandro. Facultad de Ciencias Químicas, Universidad Autónoma de San Luis Potosí.
124.	<b>Safety of <i>Pseudomonas spp.</i> and <i>Bacillus spp.</i> strains that inhibit the growth of <i>Fusarium spp.</i> and promote maize growth.</b> Mario Blanco Camarillo, Ramón I. Arteaga Garibay, Lily X. Zelaya Molina. Centro Nacional de Recursos Genéticos INIFAP.

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125.	<b>Functional analysis of the aminoacid sequence involved in localization of the hybrid protein CdgB of <i>Azospirillum brasiliense</i> Sp 245.</b> Acatitla Jácome Iris, Viruega Góngora Víctor I., María Luisa Xiqui Vazquez Beatriz E. Baca, Alberto Ramírez Mata. Centro de Investigaciones en Ciencias Microbiológicas, BUAP
126.	<b>An exploration of tRNA utilizing enzymes using EvoMining reveals novel antibiotic biosynthetic gene clusters in <i>Actinobacteria</i>.</b> César Aguilar, Hilda E. Ramos Aboites, Nelly Sélem Mojica, Paulina M. Mejía Ponce, Pablo Cruz Morales. Francisco Barona Gómez. Unidad de Genómica Avanzada. CINVESTAV. IPN.
127.	<b>Ureolytic bacteria as Geological Agents: Their role in metal carbonates formation in mine tailings.</b> Jose Luis Aguirre Noyola, Gustavo Cuaxinque Flores, Esperanza Martinez Romero, Oscar Talavera

	Mendoza. Centro de Ciencias Genómicas, UNAM
128.	<b>Changes observed in insulin and IL-15 levels in patients with pulmonary tuberculosis with or without type 2 diabetes mellitus.</b> Eduarda Cerón, Julia Moreno, Manuel Castillejos, Demetrio Bernal, Noé Alvarado. Instituto Nacional de Enfermedades Respiratorias "Ismael Cosío Villegas".
129.	<b>Functional identification of two operon related to the use of specific carbohydrates of tissues of animal origin, in <i>Avibacterium paragallinarum</i>.</b> Alma Gabriela Bárcenas Villalobos, María Elena Cobos Justo, Patricia Sánchez Alonso, Erasmo Negrete Abascal, Candelario Vázquez Cruz. Centro de Investigaciones en Ciencias Microbiológicas. BUAP
130.	<b>The cytotoxicity of <i>Thymus vulgaris</i> in eukaryotic cells.</b> Jesús Rodrigo Morales Baéz, Mirian Becerril Ramírez, Luis Eduardo Canul Chulim, Germán Rubén Aguilar Gutiérrez, Carlos Cabrera Maldonado, Marcos Flores Encarnación. Facultad de Medicina. BUAP
131.	<b>Mutation and phenotypic study of the gene AMK58_RS02950 that encodes a proposed hybrid protein (GGDEF-EAL) of <i>Azospirillum brasiliense</i> Sp7.</b> Diana Carolina Castro Fernández, Alberto Ramírez Mata and Beatriz Eugenia Baca. Centro de Investigaciones en Ciencias Microbiológicas, BUAP.
132.	<b>Indole-3-acetic acid biosynthesis by the bacterium <i>Azospirillum brasiliense</i> cultured under a biogas atmosphere allows its beneficial association with microalgae.</b> Jorge Alejandro Barbosa Nuñez, Oskar Alejandro Palacios, Raúl Snell Castro, Rosa Isela Corona González, Francisco Javier Choix Ley. CUCEI-Universidad de Guadalajara.
133.	<b><i>iorA</i> gene is involved in IAA biosynthesis in <i>A. brasiliense</i> Sp7.</b> Ricardo Cuatlayotl Olarte, Cynthia Marcos Jimenez, Alberto Ramirez Mata, Beatriz Eugenia Baca. Centro de investigaciones en ciencias microbiológicas, BUAP.
134.	<b>The effect of different carbon sources in <i>Kluyveromyces marxianus</i> growth kinetics.</b> Pablo Diaz de León Trujillo, Rafael de la Huerta Benites, Veronica Corssen Blando, Claudia Ivette Cisneros Reyes, Rafael Torres Guardado, Julia del Carmen Martínez Rodríguez. DDCyT. Universidad Autónoma de Guadalajara,
135.	<b>Physicochemical analysis of four mixed cultures prepared with different strain combinations.</b> Blanca Estela García Caballero, Raúl Rodríguez Herrera, Silvia Marina González Herrera, Cristóbal Noé Aguilar González, Olga Miriam Rutiaga Quiñones and Adriana Carolina Flores Gallegos. Chemical Sciences Faculty. Coahuila Autonomous University
136.	<b>Bioprospecting for Actinobacterias isolated from tropical soils with antimicrobial properties.</b> Viviana Gutiérrez Foronda, Evvy Rico Velazco, Navila De la Cruz Ceferino, Susana De la Rosa Garcia, Sergio Gómez Cornelio. División Académica de Ciencias Biológicas, Universidad Juárez Autónoma de Tabasco
137.	<b>Seeding public goods is essential for maintaining cooperation in <i>Pseudomonas aeruginosa</i>.</b> Luis Daniel Loarca Alvarez, Rodolfo García Contreras. Departamento de Microbiología y Parasitología, Facultad de Medicina. UNAM.
138.	<b>Engineering a biosynthetic pathway for the production of novel bioactive diterpenoids.</b> Dalia Magaña-Van Den Hengel, Verónica Rodríguez-Celestino, Sergio Sánchez, Sara Centeno Leija, Hugo Serrano Posada. Tecnoparque CLQ, Universidad de Colima.
139.	<b>Characterization of PGPR isolated from rhizospheric soils of <i>Agave angustifolia</i>.</b> Cristian Medina Nieto, Erick Marrón Montiel. Tecnológico de Estudios Superiores de Villa Guerrero
140.	<b>Antimicrobial metabolites from fungal strains isolated from agroindustrial waste products.</b> Benjamín Hernández Figueroa, Luis Fernando Sepúlveda Sáenz, Guadalupe Virginia Nevárez Moorillón. Facultad de Ciencias Químicas. Universidad Autónoma de Chihuahua.
141.	<b>Antioxidant peptides from whey fermentation and bacteriocin production by <i>Enterococcus faecium</i> strains.</b> María Georgina Venegas Ortega, Adriana Carolina Flores Gallegos, Raul Rodriguez Herrera, Jose Luis Martínez Hernández, Cristóbal Noe Aguilar González, Guadalupe Virginia Nevárez Moorillón. Facultad de Ciencias Químicas. Universidad Autónoma de Chihuahua.
142.	<b>Proteins of <i>Helicobacter pylori</i>, which scavenge iron from human sources.</b> José de Jesús Olivares-Trejo, Juan Mosqueda, Cristhian Sánchez Cruz, Marco Antonio González López. Posgrado en Ciencias Genómicas, Universidad Autónoma de la Ciudad de México
143.	<b>Efecto sobre el crecimiento de células de las líneas celulares de cáncer HCT15, MDA-MB231, MCF-7, PC3, HeLa y HEP-G2 de metabolitos secundarios producidos por Actinobacterias.</b> Dolores Viridiana Patiño Parra. BUAP
144.	<b>Participation of phosphatases in the solubilizing activity of phosphates in <i>Gluconacetobacter diazotrophicus</i> Pal5.</b> Alma Rosa Pérez Rodríguez. Luis Javier Martínez Morales. Lucía Soto Urzúa. Centro de Investigaciones Microbiológicas, Instituto de Ciencias, BUAP.
145.	<b>The hemolysin of <i>Gluconacetobacter diazotrophicus</i>.</b> Ailyn María Fernanda Ramírez González, Marcos Flores Encarnación, Ricardo Carreño López, Silvia del Carmen García García. Facultad de Medicina. BUAP.

146.	<b>The participation of the pyruvate carboxylase and phosphoenolpyruvate carboxylase enzymes in the aerobic metabolism in <i>Rhizobium phaseoli</i> CIAT652.</b> Alma Ruth Reyes González, Carmen Vargas Lagunas, Michael Dunn Lourdes Girard, Jaime Mora. Laboratorio de Biología de Sistemas y Biología Sintética, Centro de Ciencias Genómicas, UNAM
147.	<b>Biochemical characterization of two proteins involved in the metabolism of polyhydroxybutyrate (PHB) in <i>Azotobacter vinelandii</i>.</b> Jessica Ruiz Escobedo, Holjes Salgado Lugo, Josefina Guzmán, Libertad Adaya García, Alma Reyes González, Guadalupe Espín, Daniel Segura. Instituto de Biotecnología, UNAM
148.	<b>Purification of the recombinant Fur1248 protein of <i>Gluconacetobacter diazotrophicus</i> Pal5 strain: Factors that affect the oligomerization state.</b> Brenda Estefany Roldán León, Luis Javier Martínez Morales, Beatriz Eugenia Baca, Lucía Soto Urzúa. Centro de Investigaciones en Ciencias Microbiológicas, ICUAP-BUAP.
149.	<b>Flow cytometry assessment of membrane integrity of lactic acid bacteria maintained under preservation.</b> José Martín Ruvalcaba Gómez, Lily Xochilt Zelaya Molina, Edith Rojas Anaya, Bibiana Ríos Galicia, Ramón Ignacio Arteaga Garibay. Centro Nacional de Recursos Genéticos-INIFAP.

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150.	<b>Nodules of <i>Phaseolus vulgaris</i>: the unexpected place for <i>Rhizobium</i> conjugation.</b> Luis Alfredo Bañuelos Vazquez, Gonzalo Torres Tejerizo, Lourdes Girard, Laura Cervantes de la Luz, David Romero, Susana Brom. Centro de Ciencias Genómicas, UNAM
151.	<b>Structural genomics for nonribosomal peptide synthetases analysis in symbiotic bacteria.</b> Brandon Bueno Hernández, Edgar Dantán González. Centro de Investigación en Biotecnología, Universidad Autónoma del Estado de Morelos,
152.	<b>Genomic analysis of <i>Rhizobium</i> prophages.</b> Patricia Bustos, Rosa I. Santamaría, Arun Reverte Vera, Luis Lozano, Gabriela Guerrero, Víctor González. Centro de Ciencias Genómicas, UNAM
153.	<b>Intra- and inter-plasmid regulation of conjugative transfer in <i>Sinorhizobium</i>.</b> Laura Cervantes De la Luz, Gonzalo Torres Tejerizo, Eunice López Fuentes, Fabiola Miranda Sánchez-Susana Brom Klanner. Centro de Ciencias Genómicas, UNAM.
154.	<b>Unveiling the elusive nature of <i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> pathogenicity after a functional phylogenomics approach.</b> Ámbar G. Gómez Díaz, Alan G. Yañez Olvera Francisco Barona Gómez. Unidad de Genómica Avanzada LANGEBIO CINVESTAV IPN
155.	<b>Bioinformatic analysis of aerobic carbon monoxide dehydrogenase from <i>Streptomyces thermocarboxydus</i>.</b> María Paula Gómez Román, Ajit Kumar Passari and Sergio Sánchez. Instituto de Investigaciones Biomédicas, UNAM
156.	<b>Translation efficiency and codon usage bias among prokaryotes.</b> González Serrano Francisco Maximiliano, Delaye Arredondo Luis José. Laboratorio de Genómica Evolutiva, CINVESTAV.
157.	<b>Evolutionary and Transmission Dynamics of a highly prevalent <i>Acinetobacter baumannii</i> lineage (ST758) in Mexico.</b> Lucía Graña Miraglia, Santiago Castillo Ramírez
158.	<b>Identification of the gene involved in biosynthesis of polysaccharide produced by <i>Lactobacillus hilgardii</i> WKGMX in water kefir.</b> Pamela Heredia del Orbe, Violeta Larios Serrato, Lourdes Villa Tanaca, César Hernández Rodríguez. Escuela Nacional de Ciencias Biológicas, IPN.
159.	<b>Metagenomic analyses uncover the differential effect of azide treatment on bacterial community structure by enriching a specific Cyanobacteria present in a saline-alkaline environmental sample.</b> Luis Mario Hernández Soto, Francisco Martínez Abarca, Daniel Montiel Lugo, Hugo Ramírez Saad, José Félix Aguirre Garrido. Universidad Autónoma Metropolitana-Lerma.
160.	<b>Transcriptome analysis of a conditional knockdown mutant in an essential gene participating in cell division and cell polarity in <i>Rhizobium etli</i> CFN42.</b> Sofía Martínez Absalón, Carmen Guadarrama, Araceli Dávalos, Susana Brom, David Romero. Centro de Ciencias Genómicas UNAM
161.	<b>A detailed analysis of the sets of essential genes in <i>Pseudomonas aeruginosa</i> strains PAO1 and PA14.</b> Enrique Martínez Carranza, Luis David Alcaráz Peraza, Luis Servín González Gloria Soberón Chávez. Instituto de Investigaciones Biomédicas, UNAM
162.	<b>The essential genes of <i>Pseudomonas aeruginosa</i> are well conserved in <i>Azotobacter vinelandii</i>.</b> Enrique Martínez-Carranza, Luis David Alcaráz Peraza, Luis Servín González Gloria Soberón Chávez. Instituto de Investigaciones Biomédicas, UNAM
163.	<b>Stability of Drug Resistance in Bacterial Population.</b> Sandra Mayoral Álvarez, Rafael Peña Miller y Ayari

	Fuentes Hernández. Centro de Ciencias Genómicas, UNAM
164.	<b>Transcriptional expression and phylogenetic analysis of outer membrane protein genes (OMP) <i>alpA</i> and <i>alpB</i> in <i>Helicobacter pylori</i>.</b> Daniela Meléndez Sánchez, Margarita de la Luz Camorlinga Ponce, Jorge Alberto Gonzalez y Merchand. Escuela Nacional de Ciencias Biológicas, IPN.
165.	<b>In silico approach of potential like binding proteins of Cry <i>Bacillus thuringiensis</i> in mammals</b> Arnold Mendoza Osorno, Carlos Javier Sanchez, Gabriela E Olguin Ruiz, Hilda Perez Cervantes Ernesto Alarcon Hernandez E, Gloria G Guerrero M. Escuela Nacional de Ciencias Biológicas. IPN.
166.	<b>Environmentally driven gene content convergence and the <i>Bacillus</i> phylogeny.</b> Ismael Hernández González, Gabriel Moreno Hagelsieb, Gabriela Olmedo Álvarez, Department of Genetic Engineering, CINVESTAV Irapuato
167.	<b>Characterization of local adaptations in the genus <i>Virgibacillus</i> through pangenomic analysis.</b> Marisol Navarro Miranda, Manuel García Ulloa Gámiz, Mariette Viladomat Jasso, Valeria Souza Saldiva. Instituto de Ecología, UNAM
168.	<b>Genomic analysis reveals genetic markers that can be used for the specific identification of <i>Campylobacter fetus</i>, an important livestock pathogen.</b> Daniel Rivera Mendoza, Víctor H. Bustamante, Deyanira Pérez Morales. Centro de Investigación en Biotecnología, Universidad Autónoma del Estado de Morelos
169.	<b>Cophylogenetic analysis suggests cospeciation between scorpions and their Mollicutes symbionts.</b> Mónica Rosenblueth, Luis M. Bolaños, Tonalli García Santibáñez, Amaranta Manrique de Lara, Analí Migueles Lozano, Citlali Gil Aguillón, Valeria Mateo Estrada, Francisco González Serrano, Carlos E. Santibáñez López, Esperanza Martínez Romero. Programa de Ecología Genómica, Centro de Ciencias Genómicas, UNAM
170.	<b>Gut microbiome from <i>Geopherus berlandieri</i> tortoises contain nitrogen fixing <i>Klebsiella variicola</i>.</b> Mónica Rosenblueth, Diana Paola Montes Grajales, Esperanza Martinez Romero. Programa de Ecología Genómica, Centro de Ciencias Genómicas, UNAM.
171.	<b>Whole genome sequencing of <i>Mycolicibacter kumamotoensis</i>: in search of structural and functional characteristics of this potentially pathogenic microorganism.</b> Ricardo Sánchez Estrada, Mauricio Flores Valdez, Alfonso Méndez Tenorio, Ana Laura Cortés Cueto, Diana Angelica Aguilar Ayala, Jorge Francisco Cerna Cortés, Sandra Rivera Gutiérrez, Jorge Alberto González y Merchand. Departamento de Microbiología. ENCB IPN
172.	<b>Genomic Diversity of Bacteriophages Associated to Rhizobium a Nitrogen-Fixing Bacteria .</b> Rosa I. Santamaría, Jannick Van Cauwenbergh, Patricia Bustos, Soledad Juárez, & Víctor González. Centro de Ciencias Genómicas, UNAM.
173.	<b>Potential of novel polyketide and non-ribosomal peptide production in marine-derived actinomycetes from the coast of Yucatan.</b> Remes-Rodríguez, C.A., Márquez-Velázquez N. A., Prieto-Davó, A. Posgrado en Ciencias del Mar y Limnología, UNAM
174.	<b>Study of enzymatic promiscuity at the enzyme level, family and metabolic pathway, and its role in genomic mining of natural products.</b> Nelly Sélem Mojica, César Aguilar, Eduardo Martínez, Hilda E. Ramos Aboites, Francisco Barona Gómez. LANGEBIO. Unidad de Genómica Avanzada. CINVESTAV, IPN.
175.	<b>Two genetic variants of a D6-like plasmid-prophage are associated with specific IncA/C plasmid types in the emerging <i>Salmonella Typhimurium</i> ST213 genotype in Mexico.</b> Claudia Silva, Edmundo Calva, Marcos Fernández Mora, José L. Puente, Pablo Vinuesa. Departamento de Microbiología Molecular, Instituto de Biotecnología, Programa de Ingeniería Genómica, Centro de Ciencias Genómicas UNAM.
176.	<b>Comparative genomics of bacterial endosymbionts of the Mexican medicinal leeches.</b> Víctor Manuel Sosa Jiménez, Alejandro Francisco Oceguera Figueroa. Instituto de Biología, UNAM.
177.	<b>How to live under strong selection pressures and be successful? The case of <i>Pseudomonas mendocina</i> P6115, a bacterium isolated from mine tailings.</b> Lizbeth Victoria Vazquez Hernandez, Violeta Larios Serrato, Alejandra Miranda Carrazco, María de Lourdes Villa Tanaca, César Hugo Hernández Rodríguez. Departamento de Microbiología. ENCB. IPN.
178.	<b>Plant Cell Wall Degrading Enzymes diversity of Mexican <i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> strains.</b> Alan G. Yañez Olvera, Lorena Rodríguez Orduña, Francisco Barona Gómez. Evolution of Metabolic Diversity Laboratory, Unidad de Genómica Avanzada LANGEBIO, CINVESTAV-IPN.

#### HOST-PATHOGEN INTERACTION

179.	<b>Associated bacteria to urethritis in men who have sex with men (MSM).</b> Aguilera Arreola Ma. Guadalupe, Peña Toribio Arturo, García Mendiola Rebeca Eunice, Contreras Rodríguez Araceli. Laboratorio de Bacteriología Médica, ENCB, IPN.
180.	<b>Effect of metabolites produced by <i>Bacillus atrophaeus</i> on the activity of enzymes involved in the defense system of Hass avocado (<i>Persea Americana</i>).</b> Bañuelos González, Miriam del Carmen, Aguilera Aguirre, Selene, López García, Ulises, Montalvo González, Efigenia, Chacón López, Alejandra. Tecnológico Nacional de México Instituto Tecnológico de Tepic.
181.	<b>Infection of <i>Phratylenchus</i> spp. in roots colonized by native arbuscular mycorrhizal fungi of <i>Zea mays</i></b> L. Mónica Alvarado Herrejón, John Larsen, Mayra E. Gavit, Pablo Jaramillo Lopé, Miguel Martínez Trujillo, Yazmín Carreón Abud. Universidad Michoacana de San Nicolás de Hidalgo.
182.	<b>Arbuscular mycorrhizal fungi protect plants of heavy metals.</b> Nancy Rosita Rosas Jacuinde, María de los Ángeles Beltrán Nambo, Patricia Ríos Chávez, Miguel Martínez Trujillo, Yazmín Carreón Abud. Facultad de Biología. Universidad Michoacana de San Nicolás de Hidalgo.
183.	<b>The role of different amino acid residues of the SehB antitoxin on the virulence of <i>Salmonella enterica</i> serotype <i>Typhimurium</i>.</b> Fernando Chimal Cázares, Jorge A. González y Merchand Miguel A. De la Cruz. Hospital de Pediatría. Centro Médico Nacional Siglo XXI.
184.	<b>Analysis of the expression of SNAP23 and SNAP25 proteins during infection in macrophages by <i>Brucella melitensis</i>.</b> Josué Saúl Cruz Rabadán, Alfredo Castañeda Ramírez, Antonio Verdugo Rodríguez. Facultad de Medicina Veterinaria y Zootecnia, UNAM.
185.	<b>Induction of <i>Salmonella Typhimurium</i> expression of PDL1 on B cells is independent of the mechanisms involved in its persistence.</b> Alonso Daniel Cruz Cruz, Leopoldo Flores Romo y Vianney Ortiz Navarrete. Departamento de Biología Celular. CINVESTAV IPN
186.	<b>Rhizobium rhizogenes to transform <i>Capsicum annuum</i> and protection against root pathogens using bacteria or fungus as biocontrol agents.</b> Yadira Yumiko De la Cruz Rodríguez, Jaime Sagredo Beltrán, Alejandro Alvarado Gutiérrez, Miguel Alvarado Rodríguez, Saúl Fraire Velázquez. Universidad Autónoma de Zacatecas.
187.	<b>Distinct phenotypic and genomic characteristics of two Mexican <i>Pectobacterium carotovorum</i> strains of the subspecies <i>brasiliensis</i>.</b> De Sandozequi Andrés, Delia Narváez Barragán, Mabel Rodríguez, Karel Estrada, Omar E. Tovar Herrera, Lorenzo Segovia and Claudia Martínez Anaya. Instituto de Biotecnología, UNAM
188.	<b>Vaccine efficacy of BCG in bovine tuberculosis by monitoring response to ESAT-6 and CFP-10 antigens.</b> Fernando Díaz Otero, Laura Jaramillo Meza, Anabelle Manzo Sandoval, Rafael Pérez González. CENID-SAI, INIFAP.
189.	<b>Effect of coinfection by <i>Fasciola hepatica</i> and <i>Mycobacterium bovis</i> on bovine tuberculosis immunodiagnosis.</b> Fernando Díaz Otero, Laura Jaramillo Meza, Xitli García López, Héctor Quiroz Romero, Fernando Diosdado Vargas. CENID-SAI, INIFAP.
190.	<b>Monitoring autophagic flux induced by <i>Haemophilus influenzae</i> on HEp-2 cells observed by TEM.</b> María del Rosario Espinoza Mellado, Judith Taba Santos, Edgar Oliver López Villegas, Silvia Giono Cerezo. Departamento de Investigación ENCB. IPN
191.	<b>Saliva an innate defense in oral cavity: Study of histatin 5 effect in <i>Streptococcus mutans</i> morphology and Cystatin C in the immunomodulation of human gingival fibroblasts incubated with <i>Porphyromonas gingivalis</i>.</b> Ana María Fernández Presas, Yamilli Márquez Torres, Blanca Blancas Luciano, Lourdes Lanzagorta Rebollo. Facultad de Medicina. UNAM
192.	<b>Actinobacteria associated with indigenous maize soil from the traditional milpa agroecosystem display antagonistic activity against the phytopathogenic fungus <i>Fusarium graminearum</i>.</b> Héctor García López, Rosina Cabrera, Jesus Antonio Orozco Avitia, Eneas Aguirre von Wobeser, Mayra de la Torre. Centro de Investigación y Desarrollo en Agrobiotecnología.
193.	<b>Study of the virulence of fungi of medical interest in <i>Galleria mellonella</i>.</b> Romina Guzmán Barrón, Nancy E. Lozoya-Pérez, Jessica Ornelas Gutiérrez, Andrea Johana Falcón Aguirre, Leonardo Padró Villegas, Héctor Manuel Mora Montes. Universidad de Guanajuato
194.	<b>Interaction in the production of biofilm between <i>Candida kefyr</i>, <i>Escherichia coli</i> and <i>Streptococcus dysgalactiae</i> isolated from bovine mastitis.</b> Israel Daniel Ricardo González, Laura Hernández Andrade, Ana Lilia del Monte Gutiérrez, Marco Antonio Santillán Flores, Miguel Ángel Blanco Ochoa, Luis Octavio Campuzano Reyes, Alberto Oswaldo Jiménez Saavedra. Facultad de Medicina Veterinaria y Zootecnia UNAM.
195.	<b>Immune response of vaccinated calves against bovine tuberculosis defined <i>Mycobacterium bovis</i> antigens.</b> Jaramillo Meza Laura, Díaz Otero Fernando, Clara I. Espitia Pinzón Rafael Pérez González,

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196.	<b>Antigenic recognition in vaccinated calves with BCG, or with protein extract of <i>Mycobacterium bovis</i>.</b> Jaramillo Meza Laura, Díaz Otero Fernando, Hernández Andrade Laura, Manzo Sandoval Anabelle CENID-SAI, INIFAP.
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199.	<b>Effect of <i>Salmonella</i> Newport internalized in cherry tomatoes in the colonization of the gastrointestinal tract of Balb/c mice.</b> Mancilla Becerra L. M., Barba León J., Armas Puente P., Ramírez Jiménez C. L., Pedroza Roldán C. Ruiz López M. A., González Aguilar D. G. and Martínez Chávez L. and Martínez González N. CUCBA. Universidad de Guadalajara
200.	<b><i>Campylobacter fetus</i> induces proinflammatory response in bovine endometrial epithelial cells.</b> Campos Múzquiz Lizeth Guadalupe, Méndez Olvera Estela Teresita, Martínez Gómez Daniel División de Ciencias Biológicas y de la Salud, UAM Xochimilco,
201.	<b><i>Helicobacter pylori</i> and expression of miR-411-5p, miR-548d-3p and miR-892c-5p in patients with chronic gastritis and gastric cancer.</b> Sandra Inés Lorenzo Nazario, Judit Alarcón Millán, Josefina Atrisco Morales, Salomón Reyes Navarrete, José María Tremes Roche, Hilda Jiménez Wences, Julio Ortíz Ortiz, Miguel Ángel Mendoza Catalán, Berenice Illades Aguiar, Dinorah Nashely Martínez Carrillo, Gloria Fernández Tilapa. Facultad de Ciencias Químico Biológicas, Universidad Autónoma de Guerrero.
202.	<b>Chemokine dysregulation during HIV and TB Co-infection.</b> Yazmin B. Martinez Matt B. Huante, Sadhana Chauhan, George Golovko, Yuriy Fofanov, Benjamin Gelman, Janice J. Endsley. Department of Microbiology and Immunology, UTMB, Galveston, TX, USA.
203.	<b>Rescue of the thermosensitive mutation of peptidyl t-RNA hydrolase from <i>Escherichia coli</i> by three Pths from <i>Entamoeba histolytica</i> modified by directed mutagenesis.</b> Karina Moreno Escandón, Sara Abaunza Alvarado, María Elizabeth Reséndiz Juárez, María Margarita Carranza Cruz, Milagros Gómez Nieto, Armando Pérez Rangel, José Manuel Hernández, Gloria León Avila. Departamento de Zoología, ENCB, IPN
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205.	<b>Development of an <i>in vitro</i> granuloma model for the study of <i>Mycobacterium tuberculosis</i> antigens.</b> David Ortega Tirado, Aldo Arvizu Flores, Carlos Velázquez, Clara Espitia, Adriana Sumoza Toledo, Adriana Garibay Escobar. Departamento de Ciencias Químico Biológico, Universidad de Sonora.
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220.	<b>Functional analysis of the Type VI Secretion Systems in the opportunistic pathogen <i>Enterobacter cloacae</i>.</b> <i>Jorge Soria Bustos, Jorge A. González y Merchand, and Miguel Ángel De la Cruz.</i> Hospital de Pediatría. Centro Médico Nacional Siglo XXI.
221.	<b>Epidemiological and clinical characteristics of Coronavirus infections in patients treated at INER (November 2013- March 2018).</b> <i>Daniel Valencia Trujillo, Eduardo Becerril Vargas, Arturo Martínez Orozco, Christian Mireles Dávalos, Mario Mujica Sánchez, Elena Jiménez Martínez, Andrea Delgado Cueva, Elia Flores Pérez.</i> Instituto Nacional de Enfermedades Respiratorias.
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225.	<b>Effect of a monoclonal antibody IgA anti-lipid A in the polymyxin B sensitivity of <i>Salmonella</i>.</b> <i>Martha Elena Zaragoza Martínez, María de los Ángeles Padilla Mendoza and Emma Isabel Melendro Lozano.</i> Facultad de Medicina, UNAM. Hospital General de México Dr. Eduardo Liceaga SS.

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228.	<b>Osteomyelitis with Panton- Valentine Leukocidin producing <i>Staphylococcus aureus</i> strains, experience in a tertiary pediatric hospital in Mexico city.</b> Nancy Evelyn Aguilar Gómez, Alejandra Aquino Andrade, Guillermo José Vázquez Rosas, Jocelin Mérida Vieyra, Oscar Daniel Isunza Alonso, Oscar Tamez Rivera, Agustín de Colsa Ranero. Department of Pediatric Infectious Diseases, Instituto Nacional de Pediatría.
229.	<b>Detection of some virulence factors in <i>Salmonella</i> sp strains of environmental origin.</b> Denisse Flores Martínez, Ana Karen Álvarez Contreras, Iván Natividad Bonifacio, Carlos Vázquez Salinas, Elsa Irma Quiñones Ramírez. Departamento de Microbiología, ENCB. IPN.
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267.	<b>Detection of bacteria potentially producing biogenic amines in <i>Octopus maya</i> (Voss y Solís, 1966).</b> Betsabe Natividad Pérez-Hernández Mariel Gullian-Klanian. University of the sea, Campus Puerto Angel Oaxaca
268.	<b>Strains Characterization of <i>Saccharomyces cerevisiae</i> Isolated from Natural Fermentations of Sotol.</b> Janet Rentería García, Iván Salmerón Ochoa, Jorge A. Santiago Urbina, Hipócrates Nolasco Cancino, Francisco Ruiz Terán. Departamento de Alimentos y Biotecnología, Facultad de Química, UNAM
269.	<b>Characterization of <i>Enterococcus</i> sp. isolated from miscarriage products during the first trimester of pregnancy.</b> Rodrigo Pérez Zamudio, Margarita Pineda López, Sandra Ruiloba de León, Oscar Rodolfo Rodas Suárez. Departamento de Microbiología, ENCB. IPN.
270.	<b>Biological nitrogen fixation in pozol fermentation.</b> Jocelin M. Rizo Villagranaa, Marco A. Rogel Hernándezc, Daniel A. Guillén Santosa, Ma. del Carmen Wacher Rodarteb, Sergio Encarnación Guevarac, Romina Rodríguez-Sanojaa. Instituto de Investigaciones Biomédicas, UNAM
271.	<b>Probiotic potential of <i>Lactobacillus</i> strains isolated from an artisanal raw-milk cheese.</b> José Martín Ruvalcaba-Gómez, Edith Rojas-Anaya, Lily Xochilt Zelaya-Molina, Dalia Vanesa Pérez-Hernández, Jacqueline Díaz-Padilla, Ramón Ignacio Arteaga-Garibay. Centro Nacional de Recursos Genéticos-INIFAP.
272.	<b>Isolation and identification of filamentous fungi in vegetables in the central area of the state of Puebla.</b> Julieta Romero Gómez, Claudia Montalvo Paquini, María Borraz Argüello. Universidad Politécnica de Puebla.
273.	<b>Risk of acquiring toxoplasmosis infection by transfusion of hemoderivates.</b> Martha Rosales Aguilar, Cesar Gerardo Díaz Trujillo, María de los Remedios Sánchez Díaz, Paris Astrid Mier Maldonado. Facultad de medicina y Psicología. Universidad Autónoma de Baja California.
274.	<b>Phenotypic and genotypic characterization of bacteria in meat for human consumption in a population of the Sierra Sur of Oaxaca, 2019-2020.</b> Elidet Salinas Robles, Ana María González Villoria, Patricia Lozanos Sarain, Guilibaldo Gabriel Zurita Vásquez. Maestría en Salud Pública Universidad de la Sierra Sur.
275.	<b>Seroprevalence of infectious circulating antibodies in relation to the blood group in blood donors.</b> María de los Remedios Sánchez Díaz, Martha Rosales-Aguilar, Cesar Gerardo Díaz Trujillo, Edgar Ramiro

	Méndez Sánchez. Facultad de Medicina y Psicología, Ecisalud Valle de las Palmas
276.	<b>Structure-function relationship of <i>Streptococcus infantarius</i> subsp. <i>infantarius amylopullulanase</i>.</b> Alma Asiri Santiago Gutiérrez, Daniel Guillén, Romina Rodríguez Sanoja. Departamento de Biología Molecular y Biotecnología. Instituto de Investigaciones Biomédicas, UNAM.
277.	<b>Correlation between Polymerase Chain Reaction and Cervical Cytology Results in Patients from Oaxaca, Mexico.</b> Juana A. Sarmiento Porras, Perla M. Martínez Cruz, Sergio R. Aguilar Ruiz, Lisandro Sosa Velasco, Cristóbal Ortíz, Lucía Martínez Martínez. Centro de Investigación. Facultad de Medicina, UNAM-UABJO.
278.	<b>Effect of a Hand-washing Workshop on the decrease of total aerobes on the hands of social service students of the Pharmacy Degree.</b> Diana Hazel Tapia Mazón, Janeth Gómez-García, Carlos Antonio Arjona Canul, Blanca Estela Duque Montaño, Oscar Torres Angeles, Nallelyt Segundo Arizmendi. Universidad Autónoma del Estado de Morelos
279.	<b>Comparison of the microbiological and chemical characteristics of pulque from Claveles, Guanajuato in two seasons.</b> Luis Fernando Sepúlveda Sáenz, Carlos Alan Hernández, Luisa Fernanda Moriel Cano, Hilda Amelia Piñón Castillo, Joan Sebastián Salas Leiva, Martha Graciela Ruíz Gutiérrez, Layla Nayzel Muñoz Castellanos y Reyna Reyes Martínez. Facultad de Ciencias Químicas, Universidad Autónoma de Chihuahua
280.	<b>Determination of virulence profile of Shiga toxin-producing <i>Escherichia coli</i> from Chicken Carcasses from Retail Markets in Culiacan, Sinaloa, Mexico.</b> Amézquita-López B. A, Terrazas-Alcaraz C. A, Soto-Beltrán M, Lugo-Melchor O. Y, García-Caldera T. Y, Domínguez-Esquerra W. E & Quiñones B. Facultad de Ciencias Químico Biológicas. Universidad Autónoma de Sinaloa
281.	<b>Rapid detection of influenza viruses A and B using the system influenza A + B Veritor™ BD compared with the RT-qPCR in Mexican patients during the winter period of 2018-2019.</b> Daniel Valencia Trujillo, Eduardo Becerril Vargas, Arturo Martínez Orozco, Christian Mireles Davalos, Mario Mujica Sánchez, María del Carmen García Colín, Andrea Delgado Cuevas, Elia Flores Pérez. Instituto Nacional de Enfermedades Respiratorias
282.	<b>Inhibitory effect of volatile organic compounds of oregano essential oil on the growth of <i>Rhizopus stolonifer</i> in vitro.</b> Jonatan Vargas Moreno, Carlos Víctor Muñoz Ruiz, José Luis Montañez Soto, Jesús Rubén Torres García, Luis Fernando Ceja Torres, Guadalupe Oyoque Salcedo & Ernesto Oregel Zamudio. Centro Interdisciplinario de Investigación para el Desarrollo Integral Regional, IPN
283.	<b>Phenotypic and genotypic detection of <i>Clostridium difficile</i> isolated from asymptomatic carriers”.</b> Mercedes Uriyah Velazquez Romero, Claudia Fabiola Martinez de la Peña. Center in Microbiological Sciences, Institute of Sciences BUAP.
284.	<b>Study of antibiotic resistance mechanisms in <i>Acinetobacter</i> spp. isolated from hospitalized patients.</b> Ricardo Verdugo-Yocupicio, María Elena Bello-López, Rosa del Carmen Rocha-Gracia, Guadalupe Jiménez-Flores, Deysi Alejandrina Cabrera-Segura, Patricia Lozano-Zarain. Posgrado en Microbiología. Centro de Investigaciones en Ciencias Microbiológicas, Instituto de Ciencias, BUAP.
285.	<b>Characterization of UPEC clinical isolates in pregnant women.</b> Villavicencio Carrisoza O, León Juárez, García Correa A, Sosa González I, Villeda Gabriel G, Martínez Salazar M.G, González y Merchand J. A, Helguera Repetto A. Departamento de Microbiología. ENCB. IPN.
286.	<b>Drug susceptibility testing of <i>Mycobacterium mucogenicum</i> isolates from different sources.</b> Elizabeth Arana-Medina, Diana Angelica Aguilar-Ayala, Samantha Yong-Mendoza, Addy Cecilia Helguera-Repetto, Jorge Francisco Cerna-Cortés1, Sandra Rivera-Gutiérrez, Jorge Alberto González-y-Merchand. Laboratorio de Microbiología Molecular. ENCB. IPN

## MICROBIOTA AND MICROBIOME

287.	<b>Metagenomic analysis of a bacterial biofilm grown on an asphalt rock in the Gulf of Mexico.</b> Libertad Adaya, Armando Hernández, Ziromara Ramos, José Luis Rodríguez, Adolfo Gracia, Alejandra Escobar, Ernestina Godoy, Alejandro Sánchez, Liliana Pardo. Instituto de Biotecnología. UNAM.
288.	<b>Bacterial co-occurrence networks from traditional agroecosystems from contrasting climates.</b> Eneas Aguirre von Wobeser, Jorge Rocha Estrada, Lori Shapiro Mayra de la Torre Martínez. Centro de Investigación y Desarrollo en Agrobiotecnología Alimentaria, Centro de Investigación en Alimentación y

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289.	<b>Pre and probiotics effects on the growth and intestinal microbiota of an endemic fish from Mexico with aquaculture potential.</b> Jesus Mateo Amillano Cisneros, Luciana Raggi Hoyos, Carlos Antonio Martínez Palacios. INIFAP. Universidad Michoacana de San Nicolás de Hidalgo
290.	<b>Fecal bacterial profile of the Mexican wolf (<i>Canis lupus baileyi</i>) in reserve and zoo environments.</b> Sergio Iván Barraza-Guerrero, Cristina García-De la Peña, Felipe Vaca-Paniagua, Clara Díaz-Velásquez, Claudia Fabiola Méndez-Catalá, Mónica Valdés-Solana, Erick Sierra-Campos, César Alberto Meza-Herrera, Cameron W. Barrows. Unidad Regional Universitaria de Zonas Áridas, Universidad Autónoma Chapingo.
291.	<b>Microbiota of diarrheagenic <i>Escherichia coli</i> is characterized by the presence of Phylum Proteobacteria, Family Enterobacteriaceae and genera <i>Escherichia-Shigella</i>.</b> Adriana Becerra, Mario Meza Segura, Mussaret B. Zaidi, Teresa Estrada García. Department of Molecular Biomedicine, CINVESTAV IPN.
292.	<b>Bacterial communities associated with heterocystous cyanobacteria in the cycad coralloid root may have a role in symbiosis.</b> Edder D. Bustos-Díaz, Karina Gutiérrez-García, Angélica Cibrián-Jaramillo- Francisco Barona-Gómez. Unidad de Genómica Avanzada LANGEBIO. CINVESTAV IPN.
293.	<b>Taxonomic and functional changes in the microbiota of the white shrimp (<i>Litopenaeus vannamei</i>) associated to postlarvae ontogenetic development.</b> Estefanía Garibay-Valdez, Marcel Martínez-Porchas, Kadiya Calderón, Francisco Vargas-Albores, Teresa Gollas-Galván, Luis Martínez-Córdova. Centro de Investigación en Alimentación y Desarrollo, A. C.
294.	<b>Interactions between bacterial genera from a hydrocarbon degrading marine microbial consortium.</b> Diego Humberto Cuervo Amaya, Fidel Alejandro Sanchez Flores, Elizabeth Ernestina Godoy Lozano, María del Refugio Trejo Hernández, Liliana Pardo López. Instituto de Biotecnología, UNAM
295.	<b>Characterization of lactic acid bacteria, isolated from musts during the production of artisan mezcal in Oaxaca.</b> Víctor Adrián Espinoza Martínez, Claudia López Sánchez, Felipe de Jesús Palma Cruz. National Technologic of Mexico/Technologic Institute of Oaxaca.
296.	<b>Metatranscriptional characterization of gut intestinal microbiome in obese and obese with Metabolic Syndrome Mexican children.</b> Luigui Gallardo-Becerra, Fernanda Cornejo-Granados, Filiberto Sánchez, Samuel Canizales-Quinteros, Adrián Ochoa-Leyva. Instituto de Biotecnología, UNAM.
297.	<b>Microbial profiling of gestational diabetes pathophysiology: First steps towards dysbiosis characterization using amniotic fluid, placenta, meconium and colostrum samples.</b> July Stephany Gámez Valdez, Raúl Piñeiro Salvador, Gelacio Jiménez Blanco, Dalia Liliana Rodríguez Reyes, Alan Heriberto Montoya Rincón, Marion Brunck, Víctor Javier Lara Díaz, Cuauhtémoc Licona Cassani. Centro de Biotecnología FEMSA, Tecnológico de Monterrey
298.	<b>Gamma aminobutyric acid-mediated neuroprotection conferred by dietary <i>Escherichia coli</i> strain HT115 in <i>Caenorhabditis elegans</i>.</b> Arles Urritia , Víctor Antonio García Angulo, Andrés Fuentes Flores, Mauricio Caneo, Paula Burdisso, Marcela Legue, Sebastián Urquiza, Juan Ugalde, Andrea Calixto. Centro de Genómica y Bioinformática, Universidad Mayor, Chile.
299.	<b>Prevalence of <i>Porphyromona gingivalis</i> and <i>Tannerella forsythia</i> bacterial species in <i>E. gingivalis</i>-ST1 and/or ST2-kamakli subtypes carriers.</b> Gabriela García Pérez, Fernando Ramos Reyes. Facultad de Medicina,
300.	<b>Linking up the metabolically active versus total <i>Vibrio</i> spp. population in the digestive tract of <i>Litopenaeus vannamei</i> during their post-larval development.</b> Estefanía Garibay-Valdez, Luis Rafael Martínez-Cordova, Marco A. Lopez-Torres, F. Javier Almendariz-Tapia, Marcel Martínez-Porchas. Kadiya Calderón. Centro de Investigación en Alimentos y Desarrollo A.C.
301.	<b>Contribution of hospitals in the microbiome inside Mexico City Subway System.</b> Carolina González Cedillo, Luis D. Alcaraz Peraza, Mariana Peimbert. Facultad de Ciencias. UNAM.
302.	<b>Distribution of rhizospheric bacterial diversity of corn from a production area of Jalisco.</b> Jairo Eder Guerra-Camacho, Aremi Rebeca Contreras-Toledo, Carlos Ivan Cruz-Cárdenas, Lily Xochilt Zelaya-Molina, César Hugo Hernández-Rodríguez, Ramón Ignacio Arteaga-Garibay. ENCB. IPN.
303.	<b>Impact of bacteriophages associated with childhood obesity in the intestinal microbiome in a model murine.</b> Abigail Hernández-Reyna, Shirley Bikel, Fernanda Cornejo-Granados, Filiberto Sánchez, Luigui Gallardo-Becerra, Adrián Ochoa-Leyva. Instituto de Biotecnología, UNAM.
304.	<b>Mycobiota associated with dieback in Mexican Lime (<i>Citrus aurantifolia</i>) affected by Huanglongbing (HLB).</b> Julio Cesar Herrera Ortiz, Karina de la Paz García Mariscal, Manuel de Jesús Bermúdez Guzmán, José Joaquín Velázquez Monreal, Mario Orozco Santos, Francisco Javier Delgado Virgen. Instituto Tecnológico de Colima.
305.	<b>Dynamic and Asymmetric Changes of the Microbial Communities after Cohousing in Laboratory Mice.</b>

	Roberta Caruso, Masashi Ono, Marie E. Bunker, Gabriel Núñez, Naohiro Inohara. Department of Pathology, University of Michigan Medical School
306.	<b>Characterization of bacterial diversity of healthy individuals and patients with ocular surface infection.</b> Silvia Bernardina López-Gaytán, Juan Campos-Guillén, Rosa Paulina Calvillo-Medina, Diana Gabriela Ponce-Angulo, Luis Antonio Bautista-Hernández, Dulce Karina Rico-Amador, Victor Manuel Bautista-de Lucio. Faculty of Chemistry, Autonomous University of Querétaro.
307.	<b>Microbiota response to stress situations.</b> Jael López Martínez, María del Pilar Gabriel-de la Torre, Miguel-Ángel Mayoral-Chávez. Centro de Investigación UNAM-UABJO
308.	<b>Lactobacillus gasseri and <i>Sneathia sanguinegens</i> in women non-squamous intraepithelial lesion and cervical cancer with HR-HPV infection.</b> Dinorah Nashely Martínez Carrillo, Iraly Yarizbet Sotelo Ortiz, Elvis Uriel González Marroquín, Ángel Said Hipólito Valenzuela, Julio Ortiz Ortiz, Javier Sánchez Rendón, Francisco Israel Torres Rojas, Miguel Ángel Mendoza Catalán, Berenice Illades Aguiar, Gloria Fernández Tilapa, Adolfo Román Román, Hilda Jiménez Wences. Facultad de Ciencias Químico Biológicas, UAGro.
309.	<b>Microbial diversity and structure of the parasitic plants <i>Phoradendron velutinum</i> and <i>Arceuthobium gilli</i>.</b> Erika Mendez Manzano, Noé Flores Hernández, Luis Mario Hernández Soto, Jose Abraham Canales Meza, José Félix Aguirre Garrido. Universidad Autónoma Metropolitana Unidad Lerma.
310.	<b>Metagenomic Analysis of Gut Microbiota Associated with Obesity.</b> Alma Delia Nicolás-Morales, Yaneth Castro-Coronel, Arturo Ramírez-Peralta, Hugo Castelán-Sánchez, Yordanis Pérez-Llano, Natividad Castro-Alarcón. Laboratorio de Investigación en Microbiología-UAGro.
311.	<b>Metagenomic analysis of Actinobacteria phylum in patients with Irritable Bowel Syndrome.</b> Braulio Manuel Fitz González, Yolanda López Vidal, Patricia Orduña Estrada. Programa de Inmunología Molecular Microbiana, Facultad de Medicina, UNAM.
312.	<b>Fecal bacterial profile of the Merriam's kangaroo rat, <i>Dipodomys merriami</i>, in the Chihuahuan Desert.</b> Irene Pacheco-Torres, Cristina García-De la Peña, Felipe Vaca-Paniagua, Clara E. Díaz-Velásquez, Claudia Fabiola Méndez-Catalá, César A. Meza-Herrera, Luis Antonio Tarango-Arambula, Cameron W. Barrows. Unidad Regional Universitaria de Zonas Áridas, Universidad Autónoma Chapingo
313.	<b>Fecal bacterial microbiota of the pallid bat, <i>Antrozous pallidus</i>, in the Chihuahuan Desert.</b> Irene Pacheco-Torres, Cristina García-De la Peña, Felipe Vaca-Paniagua, Clara E. Díaz-Velásquez, Claudia Fabiola Méndez-Catalá, César A. Meza-Herrera, Luis Antonio Tarango-Arámbula, Cameron W. Barrows. Unidad Regional Universitaria de Zonas Áridas, Universidad Autónoma Chapingo
314.	<b>Oral sodium butyrate induces substantial intestinal changes in IL-17 / IFNγ and stabilizes tight junction proteins in an experimental model of cholestasis.</b> Marcela Peña Rodríguez, Natali Vega Magaña, Leonel García Benavides, Lucero González Hernández, Jaime Andrade Villanueva, Sergio Zepeda, Susana del Toro Arreola, Juan Manuel Benavides y Miriam Ruth Bueno Topete. Instituto de Investigación en Enfermedades Crónico Degenerativas, CUCS, U de G.
315.	<b>Evaluation of domestic canaries (<i>Serinus canaria</i>) gut microbiota. Potential zoonotic pathogens and antibiotic resistance patterns.</b> Marian Ramos-Rivera, Melissa Fierro-Loera, Norma Lizeth Soriano-Oviedo, Erica Karime Ventura-García, Claudia Isela Avitia-Domínguez, Alfredo Téllez-Valencia, Mónica Andrea Valdez-Solana, Erick Sierra-Campos. Facultad de Ciencias Químicas, UJED.
316.	<b>Prevalence of bacterial communities and potential pathogens in surface waters of the Rio Grande/Bravo in Reynosa Tamaulipas.</b> Requena-Castro Rocío, Aguilera-Arreola María Guadalupe, Cruz-Hernández María Antonia, Martínez-Vázquez Ana Verónica, Bocanegra-García Virgilio. Centro de Biotecnología. Genómica, IPN.
317.	<b>Gut microbiome in small ruminants.</b> Edith Rojas-Anaya, Elizabeth Loza-Rubio, Rodrigo J. Barrón Rodríguez, Rocío Parra-Laca, José Luis Gutiérrez-Hernández, Efrén Díaz-Aparicio, Moisés A. Cortes-Cruz MA. Centro Nacional de Recursos Genéticos, INIFAP.
318.	<b>Identification of actinobacterial strains isolated from rhizosphere of experimental wheat varieties from CIMMYT by MALDI-TOF mass spectrometry and 16s gene sequencing.</b> Julia del Carmen Martínez Rodríguez, Claudia Ivette Cisneros Reyes, Jessica Viridiana Galvez Calvario, César Salgado Lozada, DDCyT. Universidad Autónoma de Guadalajara
319.	<b>Bioprospection of actinobacteria and study of bacterial diversity from Calakmul aguadas (wetlands-like) using comparative genomics and metaprofiling.</b> Karina Verdel-Aranda, Joel Lara Reyna, Aída Martínez Hernández, Cuauhtemoc Licona Cassani. Colegio de Postgraduados, Campus Campeche.
320.	<b>Bacterial flora in stool of a captive manatee calf.</b> Lucero Vázquez Cruz, Rosa Martha Padrón López, María de Lourdes Torres Pérez, Julia María Lesher Gordillo, Adolfo López Hernández, León David Olivera Gómez y Darwin Jiménez-Domínguez. Universidad Juárez Autónoma de Tabasco

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321.	<b>Functional genetic study of the interaction of GacS and LadS kinases in <i>Azotobacter vinelandii</i>.</b> Verónica Acocal González and Miguel Castañeda. Centro de Investigaciones en Ciencias Microbiológicas. BUAP
322.	<b>Study of the regulation of polyhydroxybutyrate (PHB) depolymerization in <i>Azotobacter vinelandii</i>.</b> Thalía Barrientos Millán, Libertad Adaya García, Holjes Salgado Lugo Josefina Guzmán Aparicio, Soledad Moreno León, Carlos Peña Malacara, Guadalupe Espín Ocampo, Daniel Segura González. Instituto de Biotecnología. UNAM
323.	<b>Expression of the Fla2 flagellin in <i>R. sphaeroides</i>: analysis of the control mechanisms.</b> Julia M. Benítez, Manuel González-Vera, Sebastián Poggio, Georges Dreyfus, Laura Camarena. IIBO – IFC – UNAM
324.	<b>In silico and functional analyses of GrIR, the LEE pathogenicity island repressor in enteropathogenic <i>Escherichia coli</i>.</b> Jordan Euler Bernaldo Agüero, Carmen A. Contreras García, José Luis Puente. Instituto de Biotecnología, UNAM
325.	<b>Differences in HBsAg detection and oxidative stress gene expression between wild type and C107R mutant of Hepatitis B Virus genotype H.</b> Marina Campos-Valdez, Sina Feustel, Carolina Barrientos-Salcedo, Hugo Christian Monroy Ramírez, Belinda Gomez Meda, Juan Armendáriz Borunda, Laura Sánchez Orozco. Centro Universitario de Ciencias de la Salud, Universidad de Guadalajara
326.	<b>Effect of <i>pdeL</i> phosphodiesterase and the pair phosphodiesterase diguanylate cyclase <i>pdeL-dgcl</i> on the expression of some virulence genes and biofilm formation in Enteropathogenic <i>Escherichia coli</i>.</b> Daniel Ramses Carlos Carrillo y Ricardo Oropeza Navarro. Instituto de Biotecnología, UNAM
327.	<b>Roles of quorum-sensing and Rsm systems on virulence factors production by <i>Pseudomonas aeruginosa</i> ID4365.</b> Miguel Cocotl-Yáñez Martín Paolo Soto-Aceves, Abigail González-Valdez, Gloria Soberón-Chávez. Facultad de Medicina, UNAM
328.	<b>Inter- and intra-molecular interactions of the <i>Salmonella Typhimurium</i> regulator InvF.</b> Daniel Cortés Avalos, Luis E. Romero González, Mario A. Ortiz Moncada, Miguel A. De la Cruz, Villegas, Lourdes Villa Tanaca, José Antonio Ibarra García. ENCB IPN.
329.	<b>Effect of H-NS, Lrp and ppGpp on the P8 and P9 promoters of the <i>Salmonella Typhi</i> <i>leuO</i> gene.</b> Guadalupe Nallely Cortés López, Marcos Fernández-Mora, Edmundo Calva. Instituto de Biotecnología, UNAM
330.	<b>Analysis of a putative operon in <i>A. brasiliense</i> Sp245 involved in growth and motility.</b> Yessica I. Cosme-Herrera, Carlos D. Cordero-Rivera, Ma. Luisa Xiqui-Vázquez, Alberto Ramírez-Mata, and Beatriz E. Baca. Centro de Investigaciones en Ciencias Microbiológicas, BUAP.
331.	<b>Study of the activity of select promoters by the transcriptional regulator TyrR of <i>Azospirillum brasiliense</i> Sp7.</b> Enrique Cruz Aparicio, Sandra R. Reyes Carmona, Saúl Jijón Moreno, Alberto Ramírez Mata and Beatriz Eugenia Baca. Centro de Investigaciones en Ciencias Microbiológicas, BUAP.
332.	<b>Study of the motility of bacteria of the genus <i>Vibrio</i> under different salinity conditions.</b> Leticia Cruz Mendoza, Francisco Javier de la Mora y Georges Dreyfus. Instituto de Fisiología Celular, UNAM
333.	<b>Expression and function of <i>cdgD</i> gene encoding a hybrid DGC-EAL protein from <i>Azospirillum brasiliense</i>.</b> José Francisco Cruz Pérez, Roxana Lara Queilhé, Cynthia Marcos-Jiménez, Adriana Gamboa Pérez, Ricardo Cuatlayotl Olarte, Beatriz Eugenia Baca, Alberto Ramírez Mata. BUAP.
334.	<b>CtrA regulation mediated by ClpXP in <i>Rhodobacter sphaeroides</i>.</b> Clelia Domenzain, Elidet Gómez-César, Georges Dreyfus, Sebastian Poggio, Laura Camarena. IIBO – IFC – UNAM
335.	<b>Identification of a gene encoding for a phosphodiesterase and likely diguanylate cyclase hybrid protein in <i>Azospirillum brasiliense</i> Sp245.</b> Jesús Uriel Espino Aldaba, Antonio de Jesús Salazar García, Sandra Raquel Reyes-Carmona, Ma. Luisa Xiqui-Vázquez, Beatriz Eugenia Baca and Alberto Ramírez Mata. Centro de Investigaciones en Ciencias Microbiológicas, BUAP
336.	<b>A new alternative against urinary tract infection: design and generation of uroplakin-silenced bladder cells line.</b> Marco Antonio Flores Oropeza, Víctor Manuel Luna Pineda, Ariadna Cruz Córdova, Sara Ariadna Ochoa Pérez, Vicenta Cázares Domínguez, Karina Espinosa Mazariego, Gerardo Escalona Venegas, Guillermo Aquino Jarquín, and Juan Xicotencatl Cortes. Programa Doctorado Directo en Ciencias Biomédicas, UNAM
337.	<b>Co-expressed gene modules share similar function and regulation.</b> Edgardo Galán Vásquez, Ernesto Pérez Rueda. Instituto de Investigaciones en Matemáticas Aplicadas y en Sistemas, UNAM
338.	<b>Functional gene association networks analysis suggests that the ORF VCA0231 from <i>Vibrio cholerae</i> codes for a common iron uptake regulator in proteobacteria.</b> Bernardo Sachman Ruiz, Alexia Torres

	Muñoz and Víctor Antonio García Angulo. Instituto Nacional de Investigaciones Forestales, Agrícolas y Pecuarias. México. Instituto de Ciencias Biomédicas, Universidad de Chile.
339.	<b>Role of the histidine kinase LadS involved in alginate production in <i>Azotobacter vinelandii</i>.</b> Diana Laura Garcia Gonzalez & Miguel Castañeda Lucio. Centro de Investigaciones Microbiológicas, Instituto de Ciencias, BUAP.
340.	<b>The LEE-encoded regulator GrlA, promotes the expression of the type III secretion effector gene nleH1 in enteropathogenic <i>Escherichia coli</i>.</b> Fabiola González Lara, José Luis Puente. Instituto de Biotecnología, UNAM.
341.	<b>Mutational analysis of genes encoding a putative non-ribosomal peptide synthetase involved in the synthesis of phaseolotoxin in <i>Pseudomonas syringae</i> pv. <i>phaseolicola</i> NPS3121.</b> Lizeth Guardado Valdivia, Edwin López García, Alejandra Chacón López, José Luis Hernández Flores, Ariel Álvarez Morales, Selene Aguilera Aguirre. Instituto Tecnológico de Tepic
342.	<b>Study of the gen Avin_15460 (gacS2) involved in the synthesis of alginates in <i>A. vinelandii</i>.</b> Lennis Hernández Campos, Miguel Castañeda Lucio. Centro de Investigaciones en Ciencias Microbiológicas. BUAP
343.	<b>Characterization of GSU1771 regulator involved in electron transfer and energy generation in <i>Geobacter sulfurreducens</i>.</b> José Alberto Hernández-Eligio, Sergio Martínez Bahena, Guillermo Huerta, Margarita Miranda-Hernández and Katy Juárez López. Instituto de Biotecnología, UNAM.
344.	<b>Study of pyocyanin synthesis by the reiterated operons phzA1-G1 and phzA2-G2 in <i>Pseudomonas aeruginosa</i> ID4365.</b> René Hernández Estrada, Gloria Soberón Chávez, Miguel Cocotl Yañez. Facultad de Medicina, UNAM.
345.	<b>Molecular characterization of SehB, a type II antitoxin of <i>Salmonella enterica</i> serotype Typhimurium.</b> Gabriela Hernández-Martínez, José A. Ibarra-García, and Miguel A. De la Cruz. Hospital de Pediatría, CMN Siglo XXI, IMSS.
346.	<b>Transcriptional analysis of putative genes involved in the synthesis of c-di-GMP under biofilm conditions in <i>Geobacter sulfurreducens</i>.</b> Jesús Manuel Huerta Amparán, Katy Juárez López and José Alberto Hernández Eligio. Departamento de Ingeniería Celular y Biocatálisis, Instituto de Biotecnología, UNAM
347.	<b>Biochemical characterization of <i>Salmonella enterica</i> transcriptional regulator InvF.</b> Luis E. Romero González, Denisse A. Paredes Hernández, Wendy D. González Ibarra, Daniel Cortés Avalos, Cristina Lara Ochoa, Paulina Estrada de los Santos, Lourdes Villa-Tanaca, Victor H. Bustamante Santillán, Miguel A. de la Cruz Villegas, José Antonio Ibarra García. ENCB. IPN.
348.	<b>CreR, an EIL domain-containing protein, positively regulates the expression of the ecp fimbrial operon in <i>Citrobacter rodentium</i>.</b> María Inés Isidro-Coxca, Verónica I. Martínez-Santos, Andrés Escalera Maurer, Gustavo Caballero Flores, Alejandra Vázquez Ramos, José Luis Puente. Instituto de Biotecnología, UNAM.
349.	<b>A member of ANR family modulates the expression of genes regulated by PerA in enteropathogenic <i>Escherichia coli</i>.</b> Juan Bernardo Jaramillo-Rodríguez, María Lilia Cedillo-Ramírez, Ygnacio Martínez-Laguna and Cristina Lara-Ochoa. Centro de Detección Biomolecular, BUAP
350.	<b>Effect of the two-component system CpxRA on the expression of the pathogenicity island 2 of <i>Salmonella enterica</i> serovar Typhimurium.</b> Nancy León Montes, Jorge Alberto González y Merchand, Miguel Ángel De la Cruz Villegas. Centro Medico Nacional "Siglo XXI"
351.	<b>The GacS/A pathway regulates positively the motility and flagella synthesis in <i>A. vinelandii</i> ATCC.</b> Liliana López-Pliego, Dalia Molina Romero and Miguel Castañeda Lucio. Centro de Investigaciones en Ciencias Microbiológicas, BUAP
352.	<b>Regulation of the synthesis of poly-β-hydroxybutyrate by the response regulator GacA and ELLANtr in <i>Azotobacter vinelandii</i>.</b> Mariana López Valdez, Soledad Moreno, Guadalupe Espín, Josefina Guzmán. Instituto de Biotecnología, UNAM
353.	<b>The PhoP protein of <i>Mycobacterium tuberculosis</i> activates gene expression of the MTP pilus under different growing conditions.</b> Eduardo Martínez Hinojosa, Diana Angélica Aguilar Ayala, Sandra Rivera Gutiérrez, Jorge Alberto González y Merchand, Miguel Ángel Ares Jiménez. Departamento de Microbiología, ENCB, IPN.
354.	<b>Genetic elements involved in pH resistance in <i>Salmonella enterica</i> serovar Typhi.</b> Blanca Dinora Mendoza-Mejía, Liliana Medina-Aparicio, Isaac Olivar-Casique, Esteban Rebollar-Flores, Sarahí Rodríguez-Gutiérrez, Alejandra Vázquez-Ramos, Ismael Hernández-Lucas. Instituto de Biotecnología, UNAM
355.	<b>CRISPR-Cas transcriptional regulation in <i>Salmonella enterica</i> serovar Typhi.</b> Liliana Medina Aparicio, Javier Esteban Rebollar Flores, América Abigail Beltrán Luviano, Alejandra Vázquez Ramos, Rosa María Gutiérrez Ríos, Leticia Olvera Rodríguez, Edmundo Calva Mercado and Ismael Hernández Lucas. Instituto de

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356.	<b>Study of <i>retS</i> mutants in <i>Azotobacter vinelandii</i> strain AEIV.</b> <i>Eduardo Minto González, Miguel Castañeda and Liliana López-Pliego.</i> Miguel Castañeda. Centro de Investigaciones en Ciencias Microbiológicas, BUAP
357.	<b>The type III secretion system of <i>Pseudomonas aeruginosa</i> PAO1 is regulated positively by the Rhl quorum sensing system.</b> <i>Luis Fernando Montelongo Martínez, Gloria Soberón Chávez, Miguel Cocotl Yañez.</i> Departamento de Biología Molecular y Biotecnología, IIBM, UNAM
358.	<b>Regulation of the E2348C_1013 gene by GrlA in enteropathogenic <i>Escherichia coli</i>.</b> <i>Álvaro Damián Morales Ibarra, Emilio Cadena-Guinto, Ramón Cervantes-Rivera, José Luis Puente.</i> Instituto de Biotecnología, UNAM
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361.	<b>Characterization of the replicator region of the <i>Acinetobacter baumannii</i> plasmid pAba3207a carrying a carbapenem resistance gene (<i>blaOXA-58</i>).</b> <i>Angeles Pérez-Oseguera, Miguel A. Pantoja, Angeles Espinobarros, Luis Altamirano-Pacheco, Semiramis Castro Jaimes and Miguel Angel Cevallos.</i> Centro de Ciencias Genómicas UNAM.
362.	<b>Creation and characterization of a thermo-inducible prophage of <i>Pseudomonas aeruginosa</i> for RNA-Seq analysis.</b> <i>Irais Ramírez Sánchez and Gabriel Guarneros.</i> CINVESTAV IPN
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365.	<b>The effect of PqsE in virulence factors production by <i>Pseudomonas aeruginosa</i> INP43.</b> <i>Diana Rivera-Bazan, Alejandra A. González Valdez, Selene García-Reyes, Gloria Soberón-Chávez.</i> Instituto de Investigaciones Biomédicas, UNAM
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373.	<b>Do the SPFH-containing proteins affect secretion in enteropathogenic <i>Escherichia coli</i> in association of membrane microdomains?</b> <i>Lidia Steinemann Hernández, José Enrique Guzmán Flores, Elizabeth García Gómez, Claudia Rodríguez Rangel, Norma Espinosa, Adrián Álvarez, Bertha González Pedrajo, Dimitris Georgellis.</i> Instituto de Fisiología Celular, UNAM
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378.	<b>CdgB is a Hybrid GGDEF and EAL Protein Located in the Cytoplasmic Membrane of <i>Azospirillum brasiliense</i> Sp245.</b> Víctor J. Viruega Góngora, Iris S. Acatitla Jácome, Sandra R. Reyes Carmona, María L. Xiqui Vázquez, Beatriz E. Baca and Alberto Ramírez-Mata. Centro de Investigaciones en Ciencias Microbiológicas, BUAP
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380.	<b>Study of the effect of the simultaneous mutation of the rsmA and pycA genes on the production of PHB in <i>Azotobacter vinelandii</i>.</b> Brenda Zárate Morales, Miguel Castañeda Lucio. Centro de Investigaciones en Ciencias Microbiológicas. BUAP

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382.	<b>The transcriptome and drug susceptibility of <i>Mycobacterium tuberculosis</i> in a lipid-rich dormancy model.</b> Diana Angélica Aguilar-Ayala, Laurentijn Tilleman, Filip Van Nieuwerburgh, Dieter Deforce, Peter Vandamme, Juan Carlos Palomino, Addy Cecilia Helguera-Repetto, Jorge Francisco Cerna-Cortés, Sandra Rivera-Gutiérrez, Anandi Martin and Jorge Alberto Gonzalez-Y-Merchand. Instituto Nacional de Perinatología Isidro Espinosa de los Reyes
383.	<b>Transference Of Antibacterial Resistance From Environment To Agricultural And Healthcare Workers.</b> Arredondo Hernández René, López Vidal Yolanda, Ponce de León Rosales Samuel, Siebe Grabach Christina, Villa Romero Antonio, López Magaña Rosario Patricia. Departamento de Microbiología y Parasitología, Facultad de Medicina. UNAM
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389.	<b>Actinomycetes isolated from Mexican jungle soils with activity on diverse physiological capacities of human antibiotic-resistant pathogenic bacteria.</b> Michelle A. Chávez-Hernández, Luis A. González-Braga, Vanessa N. Alcántara-Garduño, Daniel O. Ríos-Talamantes, Graciela Castro-Escarpulli, Lourdes Villa-Tanaca, César Hernández-Rodríguez. Escuela Nacional de Ciencias Biológicas, IPN
390.	<b>Typing of Virulence Factors and Class 1 and 2 Integrons in the Epidemic clone O25b of Multidrug-resistant Uropathogenic <i>Escherichia coli</i>.</b> Laura María Contreras-Alvarado, Juan Xicohtencatl-Cortes, Victor Manuel Luna-Pineda, Ariadna Cruz-Córdova, Virginia Alcazar-López, Sergio Zavala-Vega, Graciela Castro-Escarpulli, Sara Ariadna Ochoa Pérez. Laboratorio de Investigación en Bacteriología Intestinal, HIMFG
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400.	<b>Trimethoprim sulfamethoxazole (SXT) resistance in clinical isolates of <i>Stenotrophomonas maltophilia</i>.</b> Dafne Guillén-Navarro, Rosa González Vázquez, María Córdova Espinoza, Silvia Giono Cerezo. ENCB. IPN
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404.	<b>Genome sequencing of two environmental <i>Escherichia coli</i> strains from agricultural drainage ditch water in Sinaloa, Mexico.</b> José Antonio Magaña-Lizárraga, Jesús Ricardo Parra Unda, Ines Fernando Vega López, Francisco Delgado Vargas, Bruno Gómez Gil, María Elena Báez Flores. Facultad de Ciencias Químico Biológicas, Universidad Autónoma de Sinaloa
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408.	<b>Surveillance of carbapenem-resistant <i>Pseudomonas aeruginosa</i> in a tertiary care pediatric hospital in Mexico City.</b> Jocelin Merida Vieyra, Alejandro Tapia Reyes, Enrique Luna Tenorio, Scott Alonso Macías Rodríguez, Audelia Moreno Huizar, Agustín De Colsa Ranero, Aparicio Ozores Gerardo, Alejandra Aquino Andrade. Instituto Nacional de Pediatría
409.	<b>Effect of Sodium Hexanoate on Planktonic Cells and Biofilms Formation of <i>Klebsiella pneumoniae</i>.</b> Ana Cristina Morales Moreno, Ruth Reyes Cortés, Joel Edmundo López Meza, Patricia Nayeli Alva Murillo. Departamento de Biología, Universidad de Guanajuato
410.	<b>Live attenuated <i>Salmonella enterica</i> expressing Cell-permeable Bax BH3 peptide elicits antitumor activity in a murine xenograft model of human B Non-Hodgkin's Lymphoma.</b> Paola Muñoz-López, Armando A. Mateos Chávez, Elayne I. Becerra Báez, Luis F. Flores Martínez, Diego Prada Gracia, Liliana M. Moreno Vargas, Guillermina J. Baay Guzmán, and Rosendo Luria Pérez. Hospital Infantil de México Federico Gómez.
411.	<b><i>Mycobacterium tuberculosis</i> biofilms susceptibility to compounds with antimicrobial activity.</b> Esmeralda Ivonne Niño Padilla, Adriana Garibay Escobar, Erika Silva Campa, Efraín Alday Noriega, Alexel Jesús Burgara Estrella. Universidad de Sonora
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413.	<b>Tetracycline resistance in <i>E. coli</i> strains isolated from surface and wastewaters in Reynosa.</b> Ortega Balleza, Jessica Lizbeth, Cruz González, Eduardo, Requena Castro, Rocio, Castro Escarpulli Graciela, Bocanegra García Virgilio. Centro de Biotecnología Genómica, IPN.
414.	<b>Inhibitory activity of plant extracts from the semi-desert of Coahuila against spores of phytopathogenic fungi.</b> Manuel Ramírez Pérez, María de Lourdes Froto Madariaga, José Roberto Guerrero Ramírez, Ana Paola Rocha García, Betssy Valeria Murguía Hidalgo. Autonomous University of Coahuila.
415.	<b>Genomic and pathogenicity determination of hypermucoviscous <i>Enterobacteriaceae</i> clinical isolates.</b> Nadia Rodríguez Medina, Humberto Barrios Camacho, Jesús Silva Sánchez, Jesús Martínez Barnetche, Humberto Valdovinos Torres, Alejandro Aguilar Vera, Ulises Garza Ramos. Instituto Nacional de Salud Pública
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417.	<b>Antivirulence properties of synthetic organic compounds and plant extracts in <i>Salmonella enterica</i>.</b>

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418.	<b>Antimicrobial activity of the essential oil of the regional plant <i>Rhus trilobata</i>.</b> Alejandro Iván Solís Rentería, Blanca Estela Rivera Chavira, María Carmen Elizabeth Delgado Gardea, María Olga González Rangel, Carmen Oralía Meléndez Pizarro, León Raúl Hernández Ochoa, Blanca Sánchez-Ramírez. Facultad de Ciencias Químicas, Universidad Autónoma de Chihuahua
419.	<b>Molecular characterization of clinical isolates of <i>Klebsiella pneumoniae</i> carrying <i>bla</i><sub>NDM-1</sub> and <i>bla</i><sub>TEM</sub>.</b> José Eduardo Toledano Tableros, Catalina Gayosso Vázquez, María Dolores Jarillo Quijada, José Luis Fernández Vazquez, Rayo Morfín Otero, Eduardo Rodríguez Noriega, José Di Conza, Gabriel Gutkind, José Ignacio Santos Preciado, Silvia Giono Cerezo, Mará Dolores Alcántar Curiel. Facultad de Medicina, UNAM
420.	<b>Characterization of Gallium resistance induced in a <i>Pseudomonas aeruginosa</i> cystic fibrosis isolate.</b> Arturo Tovar García, Vanesa Angarita Zapata, Adrián Cazares, Luis Esaú López Jacome, Rodolfo García Contreras. Facultad de Medicina, UNAM. CMN SXXI, IMSS.
421.	<b>Detection of clonal complex of <i>Staphylococcus aureus</i> isolates obtained from blood cultures of pediatric patients admitted in a tertiary care hospital in Mexico City.</b> Guillermo José Vázquez-Rosas, Zayra Mundo Franco, Antonino Lara Hernández, Agustín De Colsa Ranero, Gerardo Aparicio Ozores, Alejandra Aquino Andrade. Instituto Nacional de Pediatría

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422.	<b>Comparing silico tools for metabolical prediction: Tax4Fun and Picrust.</b> Erick Aarón Cervantes Rodríguez, Elcia Margareth Souza Brito, Claudio E. Parente and César Augusto Caretta. Universidad de Guanajuato
423.	<b><i>Burkholderia pseudomallei</i> identification in México.</b> Georgina Meza Radilla, Ausel Méndez Canarios, J. Eduardo Solis Hernández, J. Antonio Ibarra, Paulina Estrada de los Santos. ENCB – IPN.
424.	<b>Phenotypic and genotypic characterization of strains of the <i>Burkholderia cepacia</i> complex isolated from patients with pneumonia.</b> Meza Radilla G, Ibarra García JA, Estrada de los Santos P. ENCB – IPN.
425.	<b>Multilocus sequence analysis of endophytic fungi.</b> Fernando Sustaita Aguilar, Ivette Guadalupe Herrera Pérez, Fernanda Flores Soria y Jesús Israel Morales Jiménez. Consorcio de Investigación, Innovación y Desarrollo de las Zonas Áridas. CIIDZA-IPICYT-CONACYT