

Monday, May 26

Start Time	End Time	Laboratorio Génesis	Laboratorio Génesis
9:00 am	4:00 pm	Tutorial: Extremophiles and Rare Microorganisms Workshop: isolation, culturing and characterization - Dr. Nahui Olin Medina-Chavez & Dr. Susana De la Torre Zavala	Tutorial: Microbial Genomes and Highthroughput Sequencing - Dr. Cuaúhtemoc Licona-Cassani

Tuesday, May 27						
Start Time	End Time	Laboratorio Génesis	Laboratorio Génesis	Laboratorio Génesis	Field sites and Hotel Marielena	Hotel Marielena
9:00 am	4:00 pm	Tutorial: Extremophiles and Rare Microorganisms Workshop: isolation, culturing and characterization - Dr. Nahui Olin Medina-Chavez & Dr. Susana De la Torre Zavala	Tutorial: Microbial Genomes and Highthroughput Sequencing - Dr. Cuaúhtemoc Licona-Cassani	Tutorial: Metagenomic Analyses of Microbial Communities from Extreme Environments - Dr. Bárbara Moguel and Dr. Manuel Barrios	Tutorial: Ecology and Conservation of the Aquatic Box Turtle (Terrapene coahuila) - Dr. Gamaliel Castañeda Gaytán	Tutorial: Remote Sensing and Landscape Modeling for Desert Environments - M.Sc. Plinio Guzmán

Wednesday, May 28		
Start Time	End Time	CBTA22 Main Auditorium
9:00 am	9:45 am	Opening Keynote: Cuatro Ciénegas: What have we learned in 25 years? - Valeria Souza & Luis Eguiarte
9:45 am	10:10 am	Ecosystem responses to severe hydric disturbance in Cuatrociénegas, Coahuila - Irene Pisanty
10:10 am	10:35 am	A microbiological canary in the end of the world: Advances of the Magellanic microbiome project - Luis E. Eguiarte
10:35 am	11:00 am	Microbial taxonomic and functional stability across environmental gradients in a pristine coastal lagoon: Insights from San Quintán Bay - Silvia Pajares
11:00 am	11:15 am	Coffee Break
11:15 am	12:00 pm	Keynote talk: Tracking diversity and defense in phototrophic communities - Devaki Bhaya
12:00 pm	12:25 pm	Giant DNA Viruses Shape Microbial Community Structure and Biogeochemical Cycling in an Ancient Oasis - Katia Aviña-Padilla
12:25 pm	12:50 pm	Guilt by association: Genes related to the presence of Highly Iterated Palindromes in Cyanobacteria - Luis Delage
12:50	13:15	Functional microbiomes in mangrove recovery: Linking ecology, genomics, and restoration outcomes - Mirna Vazquez
13:15 PM	14:45 PM	Networking Lunch - Hotel Marielena
14:45 PM	15:30 PM	Keynote talk: Biomarkers, molecular fossils and stable isotopes as powerful tools to decipher life in extreme environments: from deep ocean to Mars - Daniel Carrizo
15:30 PM	15:55 PM	A SynCom Approach to disentangle how biotic interactions influence bloom-forming cyanobacteria population dynamics.- Beatriz Baselga Cervera
15:55 PM	16:20 PM	A soil property dataset to support land surface modeling and ecological forecasting across the regional scale of a water-limited environment in Cuatro Cienegas, Mexico - Mario Guevara
16:20 PM	16:45 PM	Biota Del Cretacico De La Formacion La Virgen Y Sus Facies Transicionales - Alejandra Guadalupe Gutierrez Alejandro
16:45 PM	17:10 PM	The Collapse of Churince hydrological system and its microbial community effect - Antonio González-Sánchez
17:10 PM	17:35 PM	Phenotypic and genomic characterization of two heavy metal and temperature tolerant Cupriavidus gilardii strains isolated from the Naica mine (Mexico) - Antonio González-Sánchez
17:35 PM	19:00 PM	Poster session - Hotel Marielena

Thursday, May 29		
Start Time	End Time	CBTA22 Main Auditorium
9:30 am	11:30 am	Trip to Pozas Azules
12:00 pm	12:45 pm	Opening Keynote: Hot springs as windows into the deep biosphere - Karen Lloyd
12:45 pm	13:05 PM	Microbial influence on carbonate and clay formation in volcanic lacustrine sediments of central Mexico - Mariano Cerca
13:05 PM	13:25 PM	Unveiling Microeukaryotic Diversity and Stress Adaptations in the Extreme Maar Lake Rincon de Parangueo - Barbara Mogue
13:25 PM	13:45 PM	Highly diversified archaea dominate polyextreme ecosystems bordering the limits of life - Ana Gutiérrez-Preciado
13:45 PM	15:00 PM	Networking Lunch - Hotel Marielena
15:00 PM	15:45 PM	Keynote talk: Spatial segregation during oxytaxis-driven bioconvection in multispecies planktonic bacterial communities - Joel Stavans
15:45 PM	16:05 PM	A synthetic community strategy to disentangle biotic and abiotic effects on microbial assembly - Sur Herrera
16:05 PM	16:25 PM	A Genomic and Functional Perspective on antibiotic resistance from sediment isolates from Cuatro Ciénegas, Mexico: Adaptive Roles of β -Lactamases in Natural Microbial Communities - Gabriela Olmedo Alvarez
16:25 PM	16:45 PM	Spectroscopy study of metal ions in biological systems: a journey through the chemistry of copper and its interaction with proteins, peptides and hormones. - Carolina Sánchez-López
16:45 PM	17:00 PM	Coffee break
17:00 PM	17:45 PM	Keynote talk: Species and strain diversity of bacterial genera in large-scale metagenomic datasets - João Carlos Setubal
17:45 PM	18:15 PM	Construction and analysis of some non-trophic ecological networks - Beatriz Carely Luna Olivera
18:15 PM	18:45 PM	REvolutionH-tl: A Scalable and Interpretable Framework for Inference of Gene Family Evolution - Maribel Hernández-Rosales
18:45 PM	19:05 PM	Detecting Horizontal Gene Transfer in Clinical Resistomes through Topological Data Analysis - Shaday Guerrero

Friday, May 30		
Start Time	End Time	CBTA22 Main Auditorium
9:00 am	9:45 am	Opening Keynote: Fossil and Recent Microbialites, a multiscale study - Elizabeth Chacón Baca
9:45 am	10:10 am	Vulnerability of the Cuatro Ciénegas Aquifer System, Coahuila - Dora Carreón Freyre
10:10 am	10:35 am	The importance of online water analytics to protect fragile aquatic environments - Otoniel Carranza-Díaz
10:35 am	11:00 am	Variability of above and belowground C stocks in La Joya-La Barreta Ecological Park, Querétaro, Mexico; basis of a C monitoring system - Mariano Torres-Gómez
11:00 am	11:15 am	Coffee Break
11:15 am	12:00 pm	Keynote: The Changing Landscape of Computing in Life Sciences - Laxmi Parida
12:00 pm	12:25 pm	Microbiome-mediated strategies to mitigate nutrient stress and enhance plant-associated biodiversity - Luis David Alcará
12:25 pm	12:50 pm	RiPPs gene clusters with blood brain barrier penetration activity predicted in a thermotolerant <i>Streptomyces</i> sp. isolated from karstic pond in Cuatro Ciénegas Basin - Martha Adriana Martínez-Olivas
12:50 pm	13:15 PM	PABLO: From Outbreak Monitoring to Microbial Ecology - Octavio Patricio García González
13:15 PM	14:45 PM	Networking Lunch - Hotel Marielena
14:45 PM	15:30 PM	Keynote: Experimental Evolution and the Origins of Complexity - Mike Travisano
15:30 PM	15:55 PM	Microbial architects: the hidden role of bacteria in plant-insect coevolution - Etzel Garrido
15:55 PM	16:20 PM	Is evolution predictable? - eco-evolutionary feedbacks mediated by hypermutation in a predator-prey microcosm - Pu Wang
16:20 PM	16:45 PM	Can we transplant the soil microbiome between traditional milpa agroecosystems, to help adapt agriculture to changing environmental conditions? - Eneas Aguirre-von-Wobeser
16:45 PM	17:10 PM	Intestinal Organoids: A Model for the Study of Communicable and Non-Communicable Diseases in Mexico - Martha Espinosa-Cantellano
17:10 PM	17:35 PM	Biogeochemistry of sediments with microbial mat from Pozas Rojas at Cuatro Ciénegas, Coahuila, Mexico - Felipe García-Oliva
17:35 PM	19:00 PM	Poster Session - Hotel Marielena
20:00 PM	23:00 PM	Conference networking dinner (ticket required)

Sunday, June 1		
Start Time	End Time	Start from Hotel Marielena
7:00 am	6:00 pm	Field trip: Geological and hydrogeological features of the Cuatro Ciénegas Basin and mountains - Dr. Mariano Cerca, Dr. Jorge Aranda Gómez, Dr. Dora Carreón Freyre, and Dr. Gabriel Chávez Cabello