

Biological Threats in the Age of Emerging Biotechnology - A Workshop Series

Committee

Maria Espona

Co-Chair

Maria Espona is the Director of Argentina Information Quality (ArgIQ), a non-profit organization dedicated to advancing the Information Quality methodology across Argentina and Spanish-speaking countries. With a robust background in Weapons of Mass Destruction (WMD), particularly in the Biological Weapons Convention (BWC), biorisk management, and export control, Maria has authored numerous publications on these subjects. She serves as a Subject Matter Expert (SME) in various Health Security Partners and Coalescion projects, focusing on biorisk management and export control in Latin America, particularly in Argentina. Her work emphasizes zoonotic disease surveillance and biorisk management across diverse institutions. Maria also shares her expertise as an educator at universities in Argentina, Georgia, and Peru, where she teaches courses on Information Quality, CBRN export control, dual-use practices, and responsible data use. Maria's contributions extend to global health security efforts as a member of the World Health Organization's Technical Advisory Group on the Responsible Use of the Life Sciences and Dual-Use Research (TAG-RULS DUR) and the IBSEN's International Oversight Board. Maria has a doctorate in Criminology (with a focus on biological weapons) from the University of Granada, Spain.

Nidhi Adlakha

Member

Nidhi Adlakha is an Associate Professor at the Regional Centre for Biotechnology (RCB) in India. She is an expert in molecular biology, protein engineering, and bioprocessing. Utilizing synthetic biology tools, she has successfully engineered a variety of enzymes and microbes. Her extensive experience and training in fermentation and scale-up have been crucial in ensuring the biosafety of processes. With over 10 years of experience in enzyme engineering and fermentation optimization, Dr. Nidhi's work has been recognized with prestigious accolades such as the Biotechnology Award for Cutting Edge Research (2016) and the Biotechnology Ignition Award (2014).

Mayra Ameneiros

Member

Mayra Ameneiros is a Senior Fellow at the International Biosecurity and Biosafety Initiative for Science and has over 17 years of experience in biosecurity, biorisk management, research security and health-security threats. Ameneiros is a member of the WHO Health-Security Interface Technical Advisory Group (HSI-TAG), where she advises on health-security interface issues, including preparedness and response to deliberate events and chemical, biological, radiological and nuclear threats. She also serves on the Board of Directors of NextGen and liaises with the Global Health Security Agenda Consortium's Steering Committee and APP3 Group on Biosafety and Biosecurity, as well as the NGO working group of the Biological Weapons Convention. She is a Senior Advisor for Sandia National Laboratories, an Affiliated Expert at CRDF Global, and an SME for Health Security Partners, focusing on capacity building efforts in Latin America and promoting awareness of biorisk management, biosecurity, cyberbiosecurity and research security. In 2022, she was an ELBI Fellow at the Johns Hopkins Center for Health Security and an ACONA Fellow at Harvard University's Davis Center for Russian and Eurasian Studies. Ms. Ameneiros holds a BSc and MSc in Biochemistry, is an IFBA-certified professional in biorisk management and biosecurity and former IFBA mentor.

Luciana Balboa

Member

Luciana Balboa is an independent researcher at the Institute for Biomedical Research in Retroviruses and Aids (INBIRS) in Buenos Aires, Argentina where she and her team have worked to enhance comprehension of the immune response to Mycobacterium tuberculosis. Luciana has garnered seven awards, including the Leonard Rieser Award from the Latin American Academy of Sciences (2021). She was the first Argentinean young researcher to be part of the Global Young Academy (GYA). In her role at GYA, she co-led the launch of the Latin America Science Leadership Program, which supports early-career researchers in the region by providing them with leadership tools, and co-chairs the Science Diplomacy in the Americas Working Group. She also co-chairs the Young Academy of Argentina. Luciana was recently appointed to the steering board of the Coalition for Advancing Research Assessment, demonstrating her commitment to engaging young Latin American researchers in critical global discussions and initiatives. Luciana has a PhD in Immunology.

Mónica Lizeth Chávez González

Member

Mónica Lizeth Chávez González is a Professor and Coordinator of the Doctorate Program in Food Science and Technology at the Autonomous University of Coahuila, Mexico. She is the General Coordinator and founder of the Bioprocessing Mx-LATAM Network, whose objective is to promote R&D in bioprocessing through interaction between universities, institutes, research centers, and relevant industries in Mexico and Latin America. Monica's expertise includes bioprocessing, fermentation processes, microbial biotransformation, enzyme production, and industrial food waste valorization. She is a member of the Mexican Association of Food Science (AMECA) and the Food Safety Thematic Network: Valorization of Agro-industrial By-products and Reduction of Food Losses and Waste (PDA). Dr. Chávez has been a member of the National System of Researchers (México) since 2016. Mónica has a PhD in Food Science and Technology and has been awarded the Latin American Woman in Chemistry Award in the Emerging Leader category, granted by the American Chemical Society and the Latin American Federation of Chemical Associations (FLAQ).

Rocio Alejandra Chavez-Santoscoy

Member

Rocio Alejandra Chavez-Santoscoy is a Research Assistant Professor at Tecnológico de Monterrey, Campus Monterrey (Mexico), where she leads the Core Lab Genomics. Her expertise lies in the functional effects of natural compounds and other nutraceuticals on complex biological systems through the use of multi-omics data. She is also focused on the development of functional foods from agro-industrial waste, employing nanotechnology and multi-omics data. Alejandra has garnered recognition for her innovative work, including being named an Innovator under 35 LatAm 2017 by MIT Technology Review for her development of Functional Bread for chronic diseases. She holds three granted patents (2019, 2024 -2-) and has one patent application pending. In 2024, Alejandra was elected as a member of the Global Young Academy (GYA). Alejandra holds active membership in the International Bio-nanotechnology Network (with a focus on food sustainability) and Mexico's National Researchers Council. Alejandra has a PhD in Biotechnology and has published over 37 articles in indexed journals.

Maria Melina Florez-Cuadros

Member

Maria Melina Florez-Cuadros is a Lecturer with the Department of Veterinary Sciences at Universidad Peruana Cayetano Heredia, Peru. She is also the Science Policy Interface Leader for The Organization for Women in Science for the Developing World (OWSD) Colombian chapter. Melina completed a postdoctoral fellowship from the College of Agricultural and Life Sciences at North Carolina State University in Raleigh, NC where she was responsible for developing a 'male -only' transgenic strain of *Lucila cuprina* and transferring the technology developed to the laboratory in Panama operated by their collaborators at the USDA-ARS for the Eradication of Screwworm Program. She also worked at the US Naval Medical Research Unit SOUTH (NAMRU SOUTH) where she developed vaccines and immunoprophylactics against tropical diseases such dengue and malaria. Melina has a PhD in entomology and is a member of the Global Young Academy.

Uriel Alejandro López Lemus

Member

Uriel Alejandro Lopez Lemus is the General Director at Gene SL and President of the Center for Biodefense and Global Infectious Diseases in Mexico. He is also an entrepreneur, consultant, and Forensic Expert accredited by the Supreme Court of Justice of Mexico, where he conducts criminal investigations into high-impact crimes, including bioterrorism and bioweapons. Lemus holds credentials as a Registered Biosafety Professional (ABSA) and a Registered Biological Safety Officer accredited by the Canadian Association for Biological Safety. He is an active member of the International Society for Forensic Genetics and serves as an expert for the UN Biological Weapons Convention, representing Civil Society. Dr. Lemus completed postdoctoral training in emerging gene therapies at the City of Hope National Medical Center and The Scripps Research Institute in the USA. He has also undergone extensive management, technical, and scientific training at prestigious institutions such as the Harvard School of Public Health, the Robert Koch Institute in Germany, the University of Colorado at Denver, the CDC, FEMA, and the U.S. Department of Homeland Security.

Larisa Rudenko

Member

Larisa Rudenko is the Co-Founder of BioPolicy Solutions LLC, a boutique consultancy that works in the emerging biotechnology space to develop risk/safety assessments for novel products, and research affiliate for the MIT Program on Emerging Technologies. In her work she is responsible for developing fit for purpose risk/safety assessment methodologies for novel biotechnology products or technologies, policy issues for regulatory reform, especially for the products of biotechnology. Larisa was a Former senior advisor of 15 years for Biotechnology, US FDA Center for Veterinary Medicine where she developed the policy for the regulation of animals with intentionally altered genomes and built a group to implement that policy. She also represented US interests at major international harmonization convocations, worked on trade policy for products of biotechnology and served as an advisor to US Cabinet-level/Executive Office policy makers and international political, science, and policy advisory groups on safety assessments of emerging biotechnology products requiring creative, science-based application of existing laws. She received her PhD in Cellular and Molecular Biology at SUNY Stony brook and conducted research at the Brookhaven National Laboratory on DNA damage and repair.

Pamela A. Silver

Member

Pamela Silver (NAS) is a Professor of Systems Biology at Harvard Medical School and the Wyss Institute. She is one of the founding members of the Department of Systems Biology at Harvard Medical School, where she runs the Silver Lab. In her lab, she focuses on building synthetic cells that act as sensors, memory devices, bio-computers, producers of high value commodities and energy from the sun, and novel subsystems such as proteins with designed properties for therapeutic uses. Her research has been funded by grants from the NIH, DARPA, DOD, DOE, NSF, Novartis, Merck and The Moore Foundation. Pamela is a member of the National Academy of Sciences where she has participated in three projects and is also a former member of the National Science Advisory Board for Biosecurity (NSABB).