PROCINORTE Animal Health Task Force

NORTH AMERICAN ONLINE WORKSHOP

ON

PRIORITY ANIMAL DISEASES IN 2024: EMERGING AND ZOONOTIC INFLUENZA VIRUSES, AFRICAN SWINE FEVER,

AND BOVINE TUBERCULOSIS

June 11-13, 2024





SPEAKERS BIOS



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June 11th

Emerging and Zoonotic Influenza Viruses





Néstor Avendaño



Veterinarian and zootechnician, Epidemiologist.

12 years of experience in the official veterinary services of El Salvador: In charge of the national poultry health program, in charge of the national swine health program, in charge of the epidemiological surveillance information system, head of the Veterinary Services Division and General Director of Livestock.

Focal point for animal disease notification to the World Organization for Animal Health (OIE) and Delegate of El Salvador to the OIE.

Currently working as a consultant for animal health projects at OIRSA, coordinating the regional project for the detection, prevention and control of respiratory zoonoses, with emphasis on avian influenza in Central America and the Dominican Republic and the Regional Poultry Health Program.

David Suarez



Dr. David Lee Suarez obtained a degree in Veterinary Medicine in 1988 from Auburn University and practiced small animal medicine for 3 years. He obtained his Ph.D. degree from Iowa State University in Veterinary Microbiology in 1995. Dr. Suarez is board certified in the American College of Veterinary Microbiology in both Virology and Immunology. He joined the Southeast Poultry Research Laboratory, Agriculture Research Service, USDA as a Veterinary Medical Officer in 1995. In 2005, he started as the Research Leader of the Exotic and Emerging Avian Viral Disease Research Unit. His primary research interests are avian influenza virus (AIV) and Newcastle disease virus (NDV).

Oliver Lung



Research Scientist/Head, Genomics Unit Canadian Food Inspection Agency National Centre for Foreign Animal Disease

Dr. Lung completed his Ph.D. in Molecular Biology and Genetics at Cornell University in 2000. He joined the Canadian Food Inspection Agency (CFIA) in 2006 as a Research Scientist at the Lethbridge Laboratory in Alberta, where he oversaw the microarray facility and developed automated multi-pathogen detection and subtyping assays, and served as the WOAH (World Organization for Animal Health) expert for bovine viral diarrhea. In 2016, he moved to the CFIA's National Centre for Foreign Animal Disease in Winnipeg, where he spearheaded the establishment of the Genomics Unit that operates the containment level 2 and 3 genomics laboratories. His research interests include the genomic characterization and evolution of emerging, novel, and unexpected viruses in terrestrial and aquatic animals. Dr. Lung is an Editor of Scientific Reports, is co-author of more than 69 scientific papers, co-inventor of two USPTO patents, and an Adjunct Professor of the Department of Biological Sciences at the University of Manitoba.

Anthony Signore



I completed a Ph.D in molecular biology and respiratory physiology at the University of Manitoba in 2016. I went on to a post-doctoral fellowship at the University of Nebraska where I used genomics and protein engineering to link genome evolution with biochemical adaptations to extreme environments. In 2022, I began a second post-doctoral fellowship at the University of Manitoba where I worked on the development of therapeutic agents for respiratory diseases. In 2023, I began work as a Research Scientist at the National Centre for Foreign Animal Disease where I study the evolution of avian influenza viruses.

Tavis Anderson



Tavis Anderson is a Research Biologist at the National Animal Disease Center (USDA-ARS) and combines computational and experimental studies to understand how RNA viruses evolve as they are transmitted among hosts and across landscapes. Current research efforts include the identification of genetic predictors of influenza host range and virulence, the use of sequence data to understand the genetic and antigenic variability of endemic viruses, and the application of these results in vaccine development. An additional focus of research is the development of machine learning tools that quantify the diversity of RNA viruses infecting swine, and the curation of genetic sequence data in online databases with associated near real-time epidemiology tools in collaboration with veterinary diagnostic labs.

José Iván Sánchez Betancourt



Full-time Professor and Researcher at the Faculty of Veterinary Medicine and Animal Husbandry.

Within the research line "infectious diseases", he has 42 articles published in JCR.

He has trained more than 50 undergraduate, Master's, Doctoral and Postdoctoral students.

He has presented more than 100 abstracts in conference proceedings.

Belongs to the National System of Researchers, Level 2.

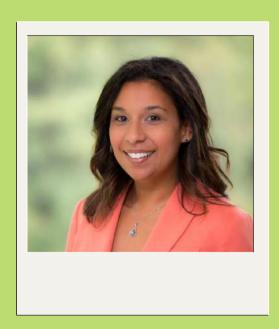
PRIDE "D", which is the highest recognition of productivity at UNAM.

<u>Jorge Galindo Barboza</u>



He is a Veterinarian and Zootechnician graduated from the University of Guadalajara (UDG), he has a Master's degree in Tropical Animal Production with a specialization in Health from the Autonomous University of Yucatan (UADY). He works as a Senior Researcher C at the National Institute of Forestry, Agricultural and Livestock Research (INIFAP) and is currently pursuing a PhD in Animal Production and Health Sciences at the National Autonomous University of Mexico (UNAM).

Roxann Motroni



Roxann Brooks Motroni, DVM, PhD

National Program Leader for Animal Health; Animal Production and Protection: Agricultural Research Service: US Department of Agriculture Roxann Motroni is the National Program Leader for Animal Health at the U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS). In this role, she provides the strategic direction and national coordination for USDA's intramural research program focused on bacterial and parasitic diseases of importance to animal health in 9 research locations across the country. The animal health program has an ~\$123M budget and 44 projects. She is also actively involved in coordinating and communicating the agency's research in antimicrobial resistance (AMR), planning the transition to the new National and Bio Agrodefense Facility (NBAF) and leading many workforce development efforts. Prior to this position, she was a program manager and American Association for the Advancement of Science (AAAS), Science and Technology Policy Fellow at the U.S. Department of Homeland Security (DHS), Chemical and Biological Defense Division (CBD) in the Agriculture Defense Branch. She holds a Doctorate of Veterinary Medicine and a PhD in Comparative Pathology from the University of California, Davis and completed advanced training in food animal ambulatory and production medicine at the University of Tennessee. She raises beef cattle and remains actively involved in mentoring pre-vet and veterinary students as well as AAAS Fellows.

June 12th

African Swine Fever

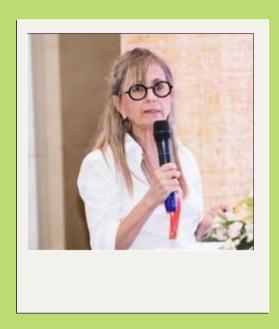


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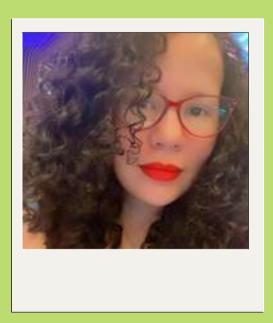


Silvia Kreindel



Dr Silvia Kreindel is the USDA-APHIS Incident Commander for African Swine Fever (ASF) response in the Dominican Republic (DR). In this role, she is responsible for assisting all aspects of the ASF response including contributing to the development of a regulatory framework, assessing surveillance strategies, implementing biosecurity standards, and movement controls. In her previous role, Dr Kreindel served as the APHIS Area Director for China and Mongolia. Silvia was also posted at the Food and Agriculture Organization of the United Nations (FAO)-Animal Health Division where she worked as the USDA/ Veterinary Services expert on risk analysis and epidemiology. Doctor Kreindel received her Doctorate in Veterinary Medicine from the University of Buenos Aires, Argentina, and her Master of Public Health in epidemiology from the University of Massachusetts.

Yussaira Castillo



Dr. Yussaira Castillo is currently a veterinary field officer for the USDA-APHIS incident command for ASF in the Dominican Republic. She works in the design and implementation of protocols for environmental sample collection, field necropsies and projects oriented to control the disease through health education. She has a PhD in Pathological Veterinary Sciences and Preventive Medicine with vast experience in infectious models, immunomodulation of food-borne pathogens and OneHealth country scale interventions for Neglected Tropical Diseases. Dr. Castillo is also a research professor at the School of Veterinary Medicine of the Universidad Autonoma de Santo Domingo and received her PhD from the Yamaguchi University Graduate School of Veterinary Medicine, Yamaguchi, Japan.

Kalhari Goonewardene



Dr. Kalhari Goonewardene is a Research Scientist at the Mammalian Disease Unit, National Center for Foreign Animal Disease, Canadian Food Inspection Agency (CFIA-NCFAD). She has been conducting research on African swine fever (ASF) and classical swine fever (CSF) for the past five years, with a focus on identifying novel diagnostic tools for ASF and CSF surveillance and early detection as well as characterization of new ASF and CSF virus strains to understand their pathogenesis. Dr. Goonewardene is a veterinarian graduated from University of Peradeniya, Sri Lanka and she hold a PhD on Veterinary Pathology from Western College of Veterinary Medicine (WCVM), University of Saskatchewan, Saskatoon, Canada.

<u>Julieta Sandra Cuevas Romero</u>



Dr. Julieta Sandra Cuevas Romero, Veterinary Doctor graduated from the School of Veterinary Medicine and Animal Husbandry, with a Master's degree in Microbiology and Virology, and a PhD from the Swedish Agricultural University (Uppsala). Incorporated in the National System of Researchers Level II. Focused on the study of viral diseases affecting Animal Health, particularly those related to problems in the area of Swine, with focus on the applications of biotechnological tools for the development of diagnostic systems from recombinant proteins and development of "New Generation Immunogens".

José Luis Cerriteño Sánchez



Biochemical Engineer from the Instituto Tecnológico de Morelia. Master of Science in Biochemical Engineering from the Instituto Tecnológico de Celaya. D. in Chemical Sciences from the Benemérita Universidad Autónoma de Puebla. Post-doctorate from the Universidad Nacional Autónoma de México. C Researcher at the NATIONAL CENTER FOR DISCIPLINARY RESEARCH IN ANIMAL HEALTH AND INOCUITY of INIFAP. Training of human resources: one Ph.D. graduate student, three M.S. graduate students and two undergraduate students. Member of the National System of Researchers, Level I by CONAHCYT.

Alejandro Zaldivar Gómez



Veterinary Zootechnician and Specialist in Geographic Information Systems by the Universidad Autónoma del Estado de México, with a Master's Degree in Health Sciences by the Instituto Politécnico Nacional, and currently a PhD Candidate in Production Sciences and Animal Health by the Universidad Nacional Autónoma de México. With more than 10 years of experience in diagnosis of infectious diseases, quality management in laboratories and preventive programs in animal health, he is a professor at UAEM and a consultant in animal health. He is a member of the Mexican Association of Veterinary Epidemiology and is certified in epidemiology by CONCERVET. His areas of interest include data analysis, epidemiology, risk analysis and the development of analytical tools to strengthen prevention and control programs.

Andrés Josafat Iniesta Valencia



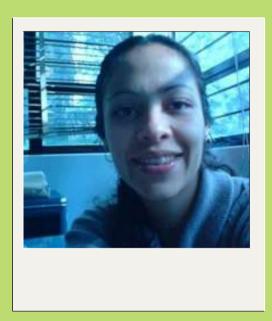
Andrés J. Iniesta Valencia, is a Veterinarian Zootechnician, graduated from the Faculty of Veterinary Medicine (FMVZ) of the UNAM, has a Diploma in Basic Veterinary Epidemiology and in Applied Veterinary Epidemiology by the FMVZ of the UNAM, as well as in Evaluation of Public Policies and Programs by the Ministry of Finance. She has a Master's Degree in Food Safety from the Universidad Abierta y a Distancia de México (Open and Distance University of Mexico). He has worked at the National Service of Health, Safety and Agrifood Quality (SENASICA) for more than 15 years, where he has carried out activities related to risk assessment, import analysis, evaluation of veterinary services, determination of risk factors in imports, verification visits, among others. He currently holds the position of Head of the Department of Animal Health Risk Analysis.

Aruna Ambagala



Dr. Aruna Ambagala is the Section Head at the Mammalian Diseases Unit, and the WOAH (OIE) reference laboratory expert for African and classical swine fevers at the Canadian Food Inspection Agency- National Centre for Foreign Animal Disease, Winnipeg, Canada. As the Section Head, he oversees testing services, technology development, research, training and scientific consultation to the national animal health program for high-consequence viral diseases such as classical and African swine fever, bluetongue, epizootic hemorrhagic disease, Schmallenberg, rabbit hemorrhagic disease, pseudorabies and other emerging viral diseases affecting farm animals. Dr. Ambagala received his Bachelor of Veterinary Medicine degree from Sri Lanka and his PhD from the University of Nebraska-Lincoln, NE, USA. He holds adjunct appointments at the Faculty of Veterinary Medicine-University of Calgary, the Department of Animal Sciences and the Department of Medical Microbiology and Infectious Diseases - University of Manitoba.

Elizabeth Ramírez



Elizabeth Ramirez-Medina is a veterinarian from Mexico City. She earned her Veterinary Medicine degree in 2005 at UAM-Xochimilco. She started her career at CENID-INIFAP doing experimental animal research on classical swine fever virus, and rabies virus. After that, she was part of the Molecular Biology Unit at the diagnostic laboratory of CPA-BSL3, SENASICA, performing diagnostic activities in multiple foreign and emergent viral animal diseases. Posteriorly, she joined to USDA/Agricultural Research Service (ARS) at the laboratory of Plum Island Disease Center in New York, USA. Here, she has been working from the last 12 years on experimental animal research on foot and mouth disease, classical swine fever, and African swine fever viruses. Among her most important achievements, is the development of the first recombinant live attenuated vaccine for the prevention of African swine fever in the market, as well as the characterization of more than 25 viral proteins and their association with the virulence of ASF.

Douglas Gladue



Dr. Gladue earned a B.S. in Microbiology from the University of Rhode Island and went on to earn a PhD in Molecular Genetics and Microbiology from Stony Brook University. He is an Executive Board Member and Scientific Director for the Global African Swine Fever Research Alliance (GARA). Additionally, he serves as an Editorial Board Member for several scientific journals, including the Journal of Virology and of Viruses. He developed vaccines previously led and from concept commercialization for foreign animal diseases at the Plum Island Animal Disease Center for the Agricultural Research Service (ARS) in the U.S. Department of Agriculture (USDA). In his role with the USDA, he led research, invented, and commercialized the first and second liveattenuated vaccines for ASF. Dr. Gladue is one of the only ARS employees in history to receive the prestigious Arthur S. Flemming award for his ASF vaccine accomplishments. Currently as Vice President of Veterinary Pharmaceuticals for Seek Labs, Dr. Gladue is developing CRISPR based bio-therapeutics to control animal diseases, with successful trials to control ASFV.

June 13th

Bovine Tuberculosis



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Gabriel Ayala Borunda



Veterinarian by the Universidad Autónoma Agraria "Antonio Narro" Unidad Laguna and Master in Microbiology by the Facultad de Estudios Superiores Cuautitlán, UNAM.

He was a researcher at the Instituto Nacional de Investigaciones Pecuarias (now INIFAP). In 1994, he joined the Commission for the Eradication of Bovine Tuberculosis and Brucellosis (CONETB) as State Coordinator and in 2001 he was appointed in charge of the Subdirection of Swine and Poultry Health.

He was National Consultant in the FAO-SAGARPA Policy Evaluation Project and later Consultant and Coordinator of the National Evaluation of Results of the Agri-Food Health and Safety Program (PSIA).

In 2019, he joined as advisor to the General Directorate of Animal Health, for participatory strategic planning projects and as of April 2022, he was appointed Director of Animal Health Campaigns, a position he currently holds.

Olga Andrievskaia



Dr. Olga Andrievskaia is a research scientist and the Head of the Molecular Biology Unit at the National Reference Laboratory for Bovine Tuberculosis, Canadian Food Inspection Agency. Her activities revolve around diagnostic and applied research in molecular methods and novel technological platforms, particularly in the identification and genotyping tuberculosis pathogens. As the Unit Head, she oversees molecular diagnostic services and scientific consultation to the national animal health program related to bovine tuberculosis.

José Angel Gutierrez Pabello



Full-time Professor C, Department of Microbiology and Immunology, Faculty of Veterinary Medicine and Animal Husbandry, Universidad Nacional Autónoma de México.

Veterinary Zootechnician, UNAM.

Master of Science in Veterinary Microbiology, School of Biological Sciences, University of Surrey, United Kingdom.

Doctor of Philosophy in Veterinary Microbiology, Texas A&M University, U.S.A.

Postdoctoral Fellow in Infectious Diseases, School of Public Health, Harvard University, U.S.A.

Head of the Bovine Tuberculosis Research Laboratory, FMVZ, UNAM.

<u>Om Surujballi</u>

Dr. Om Surujballi is a research scientist employed with the Canadian Food Inspection Agency (CFIA). Om joined Agriculture and Agri-Food Canada in 1987 as a post-doctoral fellow and transitioned to the CFIA upon it formation in 1997. Throughout his career, he worked on diseases of concern to animal health with the development and validation of technologies for diagnosis of bovine tuberculosis and Brucellosis being areas of long standing focus. Development of immunological-based technologies for diagnosis of bovine tuberculosis has been a major challenge over the years. The development of a serological test that is economical and of high throughput, that can be used to diagnose this disease across a variety of livestock species with high sensitivity and specificity still remains an important focus of his work.

Lucia Favila



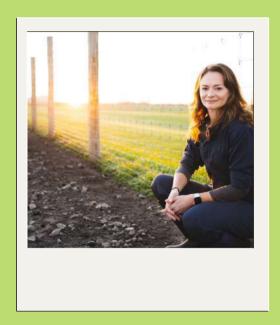
Zootechnical Veterinarian graduated from FMVZ, UNAM in 2002. Master of Science with focus on molecular diagnostics.

Researcher assigned to the mycobacteria laboratory of the CENID Animal Microbiology of INIFAP from 2008-2013, during which time the laboratory was authorized for the diagnosis of tuberculosis and multiple projects were developed to determine the prevalence of emerging diseases in cattle, sheep and goats, as well as projects for the development of diagnostic techniques mainly in paratuberculosis.

Professor of Bacterial and Fungal Diseases from 2010-2016.

Technical advisor in the area of animal health for Latin America at Thermo Fisher Scientific from 2015-2023. In 2024 I expand my responsibility to the area of agribusiness that involves both animal health and genetic improvement in plants and animals.

Paola Boggiatto



I am a research veterinary medical officer at the National Animal Disease Center in Ames, lowa. I am trained as a veterinary immunologist with an interest in host-pathogen interactions, specifically the induction of adaptive immune responses following infection or vaccination. Our group works with two persistent bacterial infections of agricultural importance with zoonotic potential, bovine brucellosis and bovine tuberculosis. Our work focuses on understanding mechanisms of immunopathogenesis and on the development of improved diagnostics and vaccination strategies for livestock and wildlife species that serve as reservoir for the disease. I am particularly interested in understanding species-specific differences in adaptive immune responses to infection and characterizing immunological mechanisms associated with resistance vs. susceptibility.

Feliciano Milián Suazo



Veterinary Doctor in Animal Husbandry from UNAM, FES-C.

Master's degree from Cornell University in the USA.

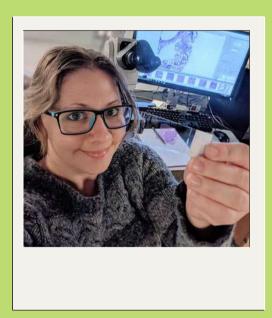
Doctorate at Colorado State University.

Former representative of Mexico in the Animal Health Task Force of PROCINORTE.

Many years working in the field of bovine tuberculosis.

Currently trying to do field trials to generate information that will lead to the registration and commercialization of a vaccine for dairy herds.

Carly Kanipe



Dr. Carly Kanipe is a Research Veterinary Medical Officer with the USDA's National Animal Disease Center's Agricultural Research Service. She serves as part of the Tuberculosis group under the Infectious Bacterial Diseases unit. Dr. Kanipe's primary focus is the immunopathologic differences of granulomas that form within BCG-vaccinated and non-vaccinated cattle and deer which are infected with Mycobacterium bovis. The goal of her research is to elucidate these differences to aid in the construction of an improved vaccine.

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