



## **Cali Marriott Hotel**

Avenida 8 Norte No 10-18

Cali, Valle del Cauca, Colombia

[www.orionbio.com/caliconf2019](http://www.orionbio.com/caliconf2019)

# 5<sup>th</sup> Conference on Mitigation Strategies for Infectious Diseases Cali, Colombia

Tuesday October 15, 2019		
08:30 AM – 07:00 PM	Registration & Badge Pickup Venue	
09:30 AM – 11:30 AM	Visit to International Center of Tropical Agriculture Palmira: Host: Joseph Tohme	
<b>12:00 – 01:00 PM</b>	<b>Lunch</b>	
02:00 PM – 04:00 PM	Visit to Cali's Secretary of Health Vector Control Laboratory: Host: Olga Cuellar	
07:30 PM – 09:30 PM	<b>Welcoming Remarks of the Organizers</b> <b>This session is by invitation only</b>	<b>Willy A. Valdivia, USA</b> <b>Nelson Sinisterra, Colombia</b> <b>Garth D. Ehrlich, USA</b> <b>Jürgen A. Richt, USA</b> <b>John Hernández Nopsa, Colombia</b>
Wednesday October 16, 2019 Morning Session		
<b>08:00 AM</b>	<b>Registration &amp; Badge Pickup Venue: Marriott Hotel, Salon Cartago</b>	
ANTIMICROBIAL RESISTANCE AND METAGENOMICS		
CHAIR: FRANCISCO VEAS, FRENCH INSTITUTE FOR DEVELOPMENT (MONTPELLIER, FRANCE)		
08:30 AM – 09:00 AM	Welcoming Remarks of the Regional Health Authority	Maria Cristina Lesmes, Secretary of Health of the Valle del Cauca (Cali, Colombia)
09:00 AM – 09:30 AM	Cali's Health Network in Response to Infectious Diseases	Nelson Sinisterra, City of Cali Secretary of Health (Cali, Colombia)
09:30 AM – 10:00 AM	Identifying Predictive Graphical Patterns In Microbiome and RNA Data Using Discrete Classification Mathematics	Jeffrey R. Lapedes Drexel University (Pennsylvania, USA)
10:00 AM – 10:30 AM	Transcriptional Characterization of Ebola Patients in Liberia	Francisco Veas French Inst. for Development (Montpellier, France)
<b>10:30 – 11:00 AM</b>	<b>Coffee Break</b>	<b>Venue: Marriot Hotel</b>
11:00 AM – 11:30 AM	Development of Machine Learning Approaches to Identification & Characterization of Unannotated Virulence Genes from Bacterial Genomic Dark Matter	Garth D. Ehrlich, Drexel University (Pennsylvania, USA)
11:30 AM – 12:00 AM	Global Genetic Cartography of Urban Metagenomes and Anti-Microbial Resistance	María Mercedes Zambrano Corporación Corpogen (Bogotá, Colombia)
12:00 AM – 12:15 PM	<b>Lightning Talk:</b> Therapeutic efficacy against <i>Helicobacter pylori</i> of a triple scheme: Omeprazole, Clarithromycin and Amoxicillin OCA-14 in two Colombian populations with the risk of Gastric Cancer	Mercedes Figueroa Macca Universidad del Valle (Cali, Colombia)
12:15 PM – 12:30 PM	<b>Lightning Talk:</b> Antibacterial Effect of Propolis and Lysozyme Against Multidrug Resistant Bacteria in Veterinary Settings	Francisco Vargas Ortiz University Antonio Nariño (UAN) (Bogotá, Colombia)
<b>12:30 – 02:00 PM</b>	<b>Lunch</b>	<b>Venue: Marriot Hotel</b>



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 for Emerging and Zoonotic Animal Diseases  
 A Department of Homeland Security  
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**Wednesday October 16, 2019 Afternoon Session**

**VECTOR BORNE INFECTIOUS DISEASES**

**CHAIR: WILLIAM C. WILSON, UNITED STATES DEPARTMENT OF AGRICULTURE (KANSAS, USA)**

02:00 PM – 02:30 PM	Entomological Risk Factors for Transmission of Rift Valley Fever Virus in the United States	Rebekah Kading Colorado State University (Colorado, USA)
02:30 PM – 03:00 PM	Arbovirus-Mosquito Vector-Host Interactions: Dengue, Zika, Yellow Fever	Stephen Higgs, Biosecurity Research Institute (Kansas, USA)
03:00 PM – 03:30 PM	Sterile Insect Techniques, Strategies to Eliminate the Wild Vector	Daiver Cardona Universidad Autónoma de Occidente (Cali, Colombia)
<b>03:30 – 04:00 PM</b>	<b>Coffee Break</b>	<b>Venue: Marriot Hotel</b>
04:00 PM – 04:45 PM	<b>Panel Discussion</b> Moderator: Janet Marroquin Institute for Defense Analyses (Washington DC) Gene Drivers, Transgenic Mosquitoes and Biological Control. What is possible?	Rebekah Kading, Colorado State Univ. Nelson Sinisterra, Secretary of Health Stephen Higgs, BRI William C. Wilson, USDA Jayme Augusto de Souza Neto, UNESP
<b>Welcoming Reception by Local Authorities</b> <b>This session is only by invitation</b>		
07:00 PM – 07:10 PM	Welcoming Remarks by the Governor	Dylian Francisca Toro, Governor of the Valle del Cauca (Cali, Colombia)
07:10 PM – 07:20 PM	What is CaliCONF trying to Accomplish?	Willy A. Valdivia, Orion Integrated Biosciences Inc. (New York, USA)
07:30 PM – 08:15 PM	<b>Keynote</b> By Mule and by Boat: The Rugged Route of Drug Trafficking and its Future in Colombia	Isabella Bernal Vega Vice News / HBO (New York, USA)
08:30 PM – 10:00 PM	Social	



## Keynote Speaker

**Isabella Bernal Vega**  
Vice News, New York



Isabella Bernal is a Colombian reporter and photographer based in Queens, New York who brings together her interests on economics and nature to build stories that reflect the social and ecological effects of man's relationship with the Earth.

Ms. Bernal studied journalism at Universidad Javeriana in Bogota, Colombia, and completed her Master of Arts in Peace, Conflict and Development in Bradford University in the United Kingdom. She graduated from the Documentary Practice and Visual Journalism program at the International Center of Photography in New York, where she was the recipient of the Wall Street Journal Scholarship.

Ms. Bernal has worked as a video producer and writer in Colombia. In 2015, she directed the multimedia project *Sanar Narrando*, awarded by the Association of Journalists of Bogotá. In 2017, she worked as a government consultant during the Colombian Peace Process with the FARC guerrillas

while producing the documentary film *La Paz* awarded by the International Film Festival in Cartagena. In 2018, she was nominated finalist of the Gabriel García Márquez Journalism prize for her documentary, *Colombia's Hidden Cocaine Route: El Naya*.





# PROCOLOMBIA

## Thursday October 17, 2019 Morning Session

### HUMAN AND ANIMAL HEALTH

**CHAIR: GARTH D. EHRlich, DREXEL UNIVERSITY (PENNSYLVANIA, USA)**

08:30 AM – 09:00 AM	Violence Impacts Infectious Disease Control and Surveillance	Robinson Pacheco Lopez ICESI University (Cali, Colombia)
09:00 AM – 09:30 AM	Rapid Biosurveillance of Emerging Infectious Diseases - Taking the Lab to the Field	Chris Detter MRI Global (Florida, USA)
09:30 AM – 10:00 AM	Mitigating Pathogen Emergence from Wildlife	David T S Hayman Massey University (Palmerston North, New Zealand)
10:00 AM – 10:30 AM	Status of Arbovirus Infectious Diseases in Colombia	Marcela Mercado Reyes National Institutes of Health (Bogota, Colombia)
<b>10:30– 11:00 AM</b>	<b>Coffee Break</b>	<b>Venue: Marriot Hotel</b>
11:00 AM – 11:30 AM	African Swine Fever: Development of Vaccines and Point-Of-Care Diagnostics	Juergen Richt, Kansas State University (Kansas, USA)
11:30 AM – 12:00 AM	Current Status of Pork Diseases in Colombia	Mario Eduardo Peña González PorkColombia (Bogota, Colombia)
<b>12:00 – 02:00 PM</b>	<b>Lunch</b>	<b>Venue: Marriot Hotel</b>

## Thursday October 17, 2019 Afternoon Session

### GLOBAL HEALTH AND BIOSURVEILLANCE

**CHAIR: FRANCISCO VEAS, FRENCH INST. FOR DEVELOPMENT (MONTPELIER, FRANCE)**

02:00 PM – 02:30 PM	Lessons Learned from EU Policies that Required Solid Evidence-Based Facts for Health, Agro and Trade	Guy Van den Eede European Commission (Brussels, Belgium)
02:30 PM – 03:00 PM	A vision of Global Health, One Health	Kay M. van der Horst Applied Biological and Biosecurity Research Laboratory (Pennsylvania, USA)
03:00 PM – 03:30 PM	Strengthening Laboratory Capacities for Research on Human Pathogens in Low-Income Countries and Crisis Situations: The GABRIEL Network	Guy Vernet Foundation Merieux (Washington DC, USA)
<b>03:30 – 04:00 PM</b>	<b>Coffee Break</b>	<b>Venue: Marriot Hotel</b>
04:00 PM – 04:30 PM	Global Surveillance System for Plant Health	Joseph Tohme International Center for Tropical Agriculture (Palmira, Colombia)
04:30 PM – 05:00 PM	RIGEL: A Global Awareness System to Mitigate Human, Animal and Plant Infectious Diseases	Willy A. Valdivia, Orion Integrated Biosciences (Washington DC, USA)

**Friday October 18, 2019 Morning Session**

**VECTOR BORNE INFECTIOUS DISEASES**

**CHAIR: JONATHAN O. RAYNER, UNIVERSITY OF SOUTH ALABAMA (ALABAMA, USA)**

08:30 AM– 09:00 AM	Migration Crisis and Vector Borne Diseases: Consequences of Venezuelan on Latin America Epidemiology	Alfonso Rodriguez Morales Technical University of Pereira (Pereira, Colombia)
09:00 AM – 09:30 AM	Insect Salivary Biomarkers for Tracking Pathogen Transmission Dynamics	Berlin Londono Kansas State University (Kansas, USA)
09:30 AM – 10:00 AM	Transcriptional and microbial diversity dynamics in the Amazonian malaria vector <i>Anopheles darlingi</i> upon <i>Plasmodium vivax</i> infection	Jayne Augusto de Souza Neto São Paulo State University (UNESP) (São Paulo, Brasil)
10:00 AM – 10:30 AM	Understanding Arbovirus Evolution to Inform Mitigation Strategies	William C. Wilson, United States Department of Agriculture (Kansas, USA)
<b>10:30 – 11:00 AM</b>	<b>Coffee break</b>	<b>Venue: Marriot Hotel</b>
11:00 AM – 11:30 PM	Efficacy of annexin V treatment on chikungunya virus infection in immunocompetent C57BL/6J mice	Jonathan O. Rayner University of South Alabama (Alabama, USA)
11:30 AM – 12:00 PM	Pebble Labs Directed Biotics Addresses Major Infectious Diseases in Health, AG and Aquaculture	Aristobulo Loaiza Pebble Labs (New Mexico, USA)
<b>12:00 – 02:00 PM</b>	<b>Lunch</b>	<b>Venue: Marriot Hotel</b>
<b>02:00 – 02:15 PM</b>	<b>Conference Planning and Chairs for CaliCONF2020</b>	<b>Venue: Marriot Hotel</b>

**Friday October 18, 2019 Afternoon Session**

**AGRICULTURE AND FOOD SECURITY**

**CHAIR: JOHN HERNÁNDEZ NOPSA, AGROSAVIA (BOGOTA, COLOMBIA)**

02:15 PM – 02:45 PM	Emerging Plant Pathogens: Biosecurity Implication	James Stack, Biosecurity Research Institute, KSU (Kansas, USA)
02:45 PM – 03:15 PM	Plant Pathogens at the Port in Colombia	Julio Ramírez Durán AGROSAVIA (Bogota, Colombia)
03:15 PM – 03:45 PM	Genetic Resistance to Diseases and Sustainable Agriculture	Carlos German Munoz Perea Universidad Nacional de Colombia (Palmira, Colombia)
<b>03:45 – 04:00 PM</b>	<b>Coffee break</b>	<b>Venue: Marriot Hotel</b>
04:00 PM – 04:30 PM	Artificial Intelligence-Powered Plant Disease Detection. A Case Study for Banana	Javier Alejandro Vergara International Center for Tropical Agriculture (Palmira, Colombia)
04:30 PM – 05:00 PM	Plant Virome, Implications in Food Security	Wilmer Cuellar, International Center for Tropical Agriculture (Palmira, Colombia)
05:00 PM – 05:30 PM	Semillas y Asuntos Fitosanitarios en Colombia	Leonardo Ariza ACOSEMILLAS (Bogota, Colombia)
05:30 PM – 06:00 PM	How to produce quality seed in AGOSAVIA	John Fredy Hernández Nopsa AGROSAVIA (Bogota, Colombia)

**Saturday October 19, 2018 Field Visits to Different Production Systems**