







GloMiNe-Peru

# **Global Microbiome Network - First Latin American Symposium**

January 15-17, 2021

# Agenda

REGISTER HERE: <u>https://bit.ly/3h9erio</u>

DAY 1 - Jan 15, 2021 (09:00-12:30 GMT -5)

### Welcome Words

09:00-09:15 JORGE MARCONE and MARÍA GLORIA DOMÍNGUEZ-BELLO (Rutgers)
09:15-09:40 PERUVIAN GOVERNMENT OFFICIAL (TBD): *Biodiversity value in Peruvian policies*

#### Session 1: The Human Microbiome

09:45-10:00 10:00-10:15	ROBERT GOODMAN (Rutgers): Global Microbiome Network: the role of universities MARTIN BLASER (Rutgers): Microbiome and health
10:15-10:30	Break
10:30-10:45	LIPING ZHAO (Rutgers): Guild-based data mining for understanding gut microbiome in human health and diseases
10:45-11:00	PASCALE VONAESCH (Swiss TPH): The human microbiota in chronic undernutrition
11:00-11:15	PABLO TSUKAYAMA (UPCH): Microbiome research in Peru
11:15-11:30	Discussion
11:30-11:45	Break
11:45-12:00	TORE MIDTVEDT (Karolinska Institutet): Why we need to preserve the microbiota
12:00-12:30	GENERAL DISCUSSION

### DAY 2 - Jan 16, 2021 (09:00-12:30 GMT -5)

### Session 2: Culture, Ecology and Ethics

- 09:00-09:15 JORGE MARCONE (Rutgers): Traditional narratives, food and ecology
- 09:15-09:30 CHIARA BARBIERI (University of Zurich): Bioanthropological research and community participation in South America
- 09:30-09:45 OSCAR NOYA (Universidad Central de Venezuela): Working on the health of remote Amazon communities
- 09:45-10:00 MARÍA GLORIA DOMÍNGUEZ-BELLO (Rutgers): Microbiomes and traditional lifestyles









- 10:00-10:15 DAN KNIGHTS (University of Minnesota): Immigration and microbiome. Considerations for restoration
- 10:15-10:30 ROBERTO ZARIQUEY-BIONDI (PUCP): The linguistic mosaic in the Amazonia
- 10:30-10:45 BREAK
- 10:45-11:00 DEBORAH DELGADO-PUGLEY (PUCP): Indigenous peoples of Peru. Protection and research
- 11:00-11:15 GABRIELA SALMON-MULANOVICH (PUCP): Regulation of human research in Peru
- 11:15-11:30 LUIS FELIPE TORRES-ESPINOZA (Federal University of Rio de Janeiro): *Cultural pertinence of research on indigenous communities*
- 11:30-12:00 GENERAL DISCUSSION

## DAY 3 - Jan 17, 2021 (09:00-12:30 GMT -5)

### Session 3: Methods of collection, preservation and research

09:00-09:15 09:15-09:30	MARÍA GLORIA DOMÍNGUEZ-BELLO (Rutgers): The Microbiota Vault History MATTHEW J. RYAN (CABI, U.K.): Collections: adapting to meet the needs of microbiome research
09:30-09:45	THOMAS SCHMIDT (Michigan Microbiome Project): Engineering the gut microbiome of a clinical cohort
09:45-10:00	RAÚL CANO (The BioCollective): Existing specimen preservation methods for fecal transplant: limitations and perspectives (TBD)
10:00-10:15	JOËL DORÉ (French National Research Institute for Agriculture, Food and the Environment): <i>Metagenomics</i> (TBD)
10:15-10:30	Break
10:30-10:45	ADRIAN EGLI (University Hospital Basel): Quality and standardization to pave the way into routine application of clinical metagenomics
10:45-11:00	NICHOLAS BOKULICH (ETH Zürich): Bioinformatics platforms for reproducible microbiome research
11:00-11:15	ROB KNIGHT (University of California San Diego): Microbiota Analyses
11:15-11:30	JACK GILBERT (University of California San Diego): Advancing microbiome research towards translation
11:45-12:00 12:00-12:15 12:15-12:30	MANUEL FANKHAUSER (Seerave Foundation): Role of foundations in the MV Initiative LEE KERKHOF (Rutgers): Sequencing outside the lab: the power of MinION GENERAL DISCUSSION

### **Organizing Committee**

DEBORAH DELGADO-PUGLEY • GABRIELA SALMON-MULANOVICH • PABLO TSUKAYAMA • LUIS FELIPE TORRES-ESPINOZA • JORGE MARCONE • MARÍA GLORIA DOMÍNGUEZ-BELLO • BETH NASH • MARCELO MEREGALLI-FERRER









#### **Speakers BIOs**

Chiara Barbieri is a researcher and leader of the group "Human Genetic Diversity across Languages and Cultures" at the University of Zurich. Her research uses genetic analysis to reconstruct demographic events such as migration, diffusion and contact, drawing parallels between genetics and other anthropological disciplines, especially linguistics. She is specialized in the study of (pre)history and current human diversity of South America.

Martin Blaser holds the Henry Rutgers Chair of the Human Microbiome and Professor of Medicine and Microbiology at the Robert Wood Johnson Medical School as well as Director of the Center for Advanced Biotechnology and Medicine at Rutgers University. A physician and microbiologist, his research has centered on the relationship of humans and bacteria, both as foes and friends. His award-winning book for general audiences about our changing microbiota, Missing Microbes, has been translated into 20 languages.

Nicholas Bokulich is an is Assistant Professor of Food Systems Biotechnology in the Department of Health Sciences and Technology at ETH Zürich. Before joining ETHZ, he completed postdoctoral training at New York University Medical Center and Northern Arizona University, and received his PhD at the University of California, Davis. He is a lead developer of the QIIME 2 multiomics analysis software platform (http://giime2.org/) and other bioinformatics methods for microbiome and omics analysis. His laboratory studies the interconnection between microbial ecosystems, food, and human health and development

Raúl Cano is the Chief Scientific Officer at The BioCollective, expert in Metagenomics and Microbiome analysis, Paleomicrobiology, Probiotic formulation.

**Deborah Delgado-Pugley** is a Professor of Sociology at the Pontificia Universidad Católica del Perú. She has a Ph.D. in International Development (Catholic University of Louvain) and Sociology (EHESS Paris School of Social Sciences Studies). She has researched on environmental and climate policies at the international and territorial level. She has field experience in the Amazon regions of Bolivia and Peru, where she has led research teams on climate change, indigenous movements, human rights, natural resource management, forestry development, and gender.



















**María Gloria Domínguez-Bello** is the Henry Rutgers Professor of Microbiome and Health at Rutgers University, and is the Director of the New Jersey Institute for Food Nutrition and Health (IFNH). Her lab focuses on multidisciplinary approaches to study impacts of modern practices on the microbiome and strategies for restoration. She is a fellow of the American Academy of Microbiology, and of the Infectious Disease Society of America.

Joël Doré is a Research Director at the French National Research Institute for Agriculture, Food and the Environment, INRAE, and President of the Executive Committee of the Pre-Industrial Demonstrator MetaGenoPolis, a platform of excellence dedicated to quantitative and functional metagenomics, and the Deputy Head of the MICALIS institute "Food and Gut Microbiology for Human Health" and scientific board member of Microbiology Pole of the Doctoral School "Therapeutic Innovations" at Paris-XI University. He received his Ph.D. from the University of Illinois at Urbana-Champaign, USA.

Adrian Egli leads the Applied Microbiology Research group at University Hospital Basel in Switzerland, to translate our understanding of the complex host-pathogen interactions into clinical applications, such as novel adjuvant development targeting specific signaling pathways or preventive measurements on a population level.

**Manuel Fankhauser** is Manuel Fankhauser is Chief Scientific Officer at Seerave Foundation, an independent family foundation that aspires to broaden and enhance the Standard of Care for cancer patients, with the underlying conviction that more benign approaches can be developed to treat cancers and other illnesses by modulating the nutrition / microbiome / metabolite / immune system axis. Dr. Fankhauser holds a PhD in bioengineering from the Swiss Federal Institute of Technology in Lausanne (EPFL), where he worked on understanding the role of lymphatics in shaping anti-tumor immune responses.

**Jack A. Gilbert** is a Professor in Pediatrics and the Scripps Institution of Oceanography at University of California San Diego. Dr. Gilbert uses molecular analysis to test fundamental hypotheses in microbial ecology. He cofounded the Earth Microbiome Project and American Gut Project. He has authored more than 300 peer reviewed publications and book chapters on microbial ecology. He is also the founding Editor in Chief of mSystems journal.



















**Robert Goodman** is a plant biologist and virologist who from 2005 to 2020 served as Executive Dean of Agriculture and Natural Resources at Rutgers University, executive dean of the School of Environmental and Biological Sciences, executive director of the New Jersey Agricultural Experiment Station, and Distinguished Professor of Ecology, Evolution, and Natural Resources. In 2020, he was named a University Professor by the Rutgers Board of Governors and Executive Dean Emeritus.

**Lee Kerkhof** is a marine microbiologist who began working with nucleic acids nearly 40 years ago. His research is focused on detecting active microorganisms (prokaryotic, archaeal, and eukaryotic) in aeolian, aquatic, sediments/soils systems, and in association with eukaryotic hosts. His recent efforts include ribosomal RNA operon profiling of complex samples and detecting microbes incorporating 13C and 15N into their genomes.

**Rob Knight** is the Director of the Center for Microbiome Innovation at University of California San Diego, where he is a Professor of Pediatrics, Bioengineering, and Computer Science & Engineering. He has spoken at TED and written over 700 scientific articles. He was honored with the 2017 Massry Prize, often considered a predictor of the Nobel. His work combines microbiology, DNA sequencing, ecology and computer science to understand the vast numbers of microbes that inhabit our bodies and our planet.

**Dan Knights** is an Associate Professor in the Department of Computer Science and Engineering and the BioTechnology Institute at the University of Minnesota. He obtained his Ph.D. in Computer Science under Rob Knight and Mike Mozer at the University of Colorado at Boulder, with a certificate in Interdisciplinary Quantitative Biology from the University of Colorado's BioFrontiers Institute. He came to the University of Minnesota from a post-doctoral fellowship in the lab of Ramnik Xavier at Harvard Medical School and the Broad Institute of MIT and Harvard.

Jorge Marcone is an Associate Professor in the Department of Spanish and Portuguese, and the Program in Comparative Literature at Rutgers University. His research focuses on narratives where identity and well-being are understood within multispecies communities, or in networks of entangled human and nonhumans. He collaborates in activism towards cultural preservation of traditional food production systems, and he is interested in indigenous and local environmental movements.

















**Tore Midtvedt** was a Professor in Medical Microbiology, University of Oslo, Norway and Professor and Chairman in the Department of Medical Microbial Ecology, Cell and Molecular Biology in Karolinska Institute, Stockholm, now Professor Emeritus in Karolinska Institute since 1990.

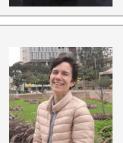
**Mathew J. Ryan** curates the CABI microbial culture collection and has led research into the development of novel microbial cryopreservation protocols. He plays an active role in various international activities to ensure that biobanking infrastructure is developing to meet the needs of the microbiome research community, especially in Agri-food. He leads a UK BBSRC project to establish a crop microbiome cryobank, is a collaborator on the EU MicrobiomeSupport project and is a board member of the International Alliance for Phytobiomes Research.

**Gabriela Salmon-Mulanovich** holds a B.S. in Biology and Biotechnology at the Universidad Nacional Agraria La Molina, Peru. She completed epidemiology studies at master's level at the Universidad Peruana Cayetano Heredia. She obtained her Ph.D. from the Department of International Health, Epidemiology and Global Disease Control, Johns Hopkins University Bloomberg School of Public Health. Her research has been focused on infectious diseases for evidence-based public policies.

**Thomas Schmidt** is the Director of the Michigan Microbiome Project and a microbiologist who has studies microbes from diverse environments. Most recently he has focused on understanding how environmental characteristics in the GI tract influence the functioning of the gut microbiota and how to engineer that system for desired outcomes.

**Luis Felipe Torres-Espinoza** graduated in Anthropology from the Pontificia Universidad Católica del Perú, Magister in Latin American Studies from the University of Newcastle (U.K.) and a Ph.D. candidate in Social Anthropology from the National Museum of the Federal University of Rio de Janeiro (Brazil). Dedicated to research in the field of indigenous ethnology and public policies related to indigenous peoples in isolation and initial contact in the Amazon.













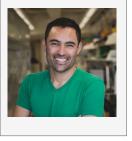




**Pablo Tsukayama** is Assistant Professor of Microbiology and Principal Investigator of the Microbial Genomics Laboratory at Universidad Peruana Cayetano Heredia in Lima. He did his Ph.D. at Washington University in St. Louis with Prof. Gautam Dantas studying the transmission dynamics of antibiotic resistance genes between human and environmental microbiomes in peri-urban communities in Lima.

**Pascale Vonaesch** is an Assistant Professor at the University of Basel. Her lab focuses on fundamental and translational/clinical research about the human intestinal ecosystem and the contribution of the microbiota to health and disease. In her research, she is especially interested in the role of the intestinal microbiome in childhood malnutrition and in the development of microbiota-targeted interventions. She has been the recipient of the prestigious Swiss National Science Foundation Professorial Fellowship and is a member of the Swiss Society of Microbiology.

**Liping Zhao** is the Eveleigh-Fenton Chair of Applied Microbiology at Rutgers University. He is a fellow of American Academy of Microbiology, a senior fellow of Canadian Institute for Advanced Research, and a member of the Scientific Advisory Board for the Center for Microbiome Research and Education of the American Gastroenterology Association. His pioneer research applies metagenomicsmetabolomics integrated tools and dietary interventions for manipulating gut microbiota to improve human metabolic health. SCIENCE magazine (Science 336: 1248) featured his work on gut microbiota and obesity.















## Speakers' Affiliation & Contact Info

NAME	EMAIL	AFFILIATION	COUNTRY
Barbieri Chiara	barbieri.chiara@gmail.com	University of Zurich	Switzerland
Blaser, Martin	martin.blaser@cabm.rutgers.edu	Rutgers, the State University of New Jersey	USA
Bokulich, Nicholas	nicholas.bokulich@hest.ethz.ch	ETH Zurich	Switzerland
Cano, Raul	rauljcano@gmail.com	The BioCollective	USA
Delgado-Pugley, Deborah	deborah.delgado@pucp.pe	Pontificia Universidad Católica del Perú	Perú
Domínguez-Bello, María G.	mg.dominguez-bello@rutgers.edu	Rutgers, the State University of New Jersey	USA
Dore, Joel	joel.dore@inra.fr	INRA	France
Egli, Adrian	adrian.egli@usb.ch	University Hospital Basel	Switzerland
Fankhauser, Manuel	manuel.fankhauser@seerave.org	Seerave Foundation	Switzerland
Gilbert, Jack	gilbertjack@gmail.com	University of California San Diego	USA
Goodman, Robert	robert.goodman@rutgers.edu	Rutgers, the State University of New Jersey	USA
Knight, Rob	robknight@ucsd.edu	University of California San Diego	USA
Knights, Dan	dknights@umn.edu	University of Minnesota	USA
Marcone, Jorge	jmarcone@spanport.rutgers.edu	Rutgers, the State University of New Jersey	USA
Midtvedt, Tore	tore.midtvedt@ki.se	Karolinska Institute	Sweden
Ryan, Matthew	m.ryan@cabi.org	САВІ	UK
Salmon-Mulanovich, Gabriela	gsalmonm@pucp.edu.pe	Universidad Peruana Cayetano Heredia	Perú
Schmidt, Thomas	schmidti@umich.edu	Michigan Microbiome Project	USA
Torres-Espinoza, Luis Felipe	lufelipeis@gmail.com	National Museum / Federal University of Rio de Janeiro	Brazil
Tsukayama, Pablo	pablo.tsukayama@upch.pe	Universidad Peruana Cayetano Heredia	Perú
Vonaesch, Pascale	pascale.vonaesch@swisstph.ch	Swiss TPH	Switzerland
Zariquiey, Roberto	rzariquiey@pucp.edu.pe	Pontificia Universidad Católica del Perú	Perú
Zhao, Liping	liping.zhao@rutgers.edu	Rutgers, the State University of New Jersey	USA