MICROBIOLOGY VIRTUAL WEEK
Including Immunology, Infectious Disease & Influenza
SEPTEMBER 8-10, 2020

Date	Time	Track	Presentation Title	Speaker
8-Sep	06:00 - 07:00 AM	Modeling Approaches - September 8th	Digital PCR using QIAGEN's QIacuity system: an introduction	Andreas Missel, PhD Director R&D, QIAGEN GmbH
8-Sep	09:00 - 10:00 AM	Influenza - September 8th	Keynote Presentation: A Universal Influenza Virus Vaccine	Peter Palese, PhD Professor and Chair Department of Microbiology, Professor in Department of Medicine and Infectious Diseases, Icahn School of Medicine at Mount Sinai
8-Sep	10:00 - 11:00 AM	Influenza - September 8th	Keynote Presentation: Single-cell virus sequencing of influenza infections that trigger innate immunity	Jesse D. Bloom, PhD Associate Professor, Fred Hutch Cancer Research Center, Investigator, Howard Hughes Medical Institute
8-Sep	12:00 - 01:00 PM	Influenza - September 8th	Keynote Presentation: Structure-based Vaccine Design for COVID-19 and other Respiratory Viruses	Barney S. Graham, MD, PhD Deputy Director, Vaccine Research Center, Chief, Viral Pathogenesis Laboratory, NIAID (National Institute of Allergy and Infectious Diseases)
8-Sep	11:00 - 11:59 PM	Modeling Approaches - September 8th	Applications of Machine Learning to Predict Clinical Provenance of Haemophilus influenzae	Joshua Earl, PhD Head of Bioinformatics, Drexel University College of Medicine
8-Sep	11:00 - 11:59 PM	Modeling Approaches - September 8th	Deep Learning by Analogy: Applying Text and Image Processing Techniques to Sequence Analysis	Will Dampier, PhD Assistant Professor, Department of Microbiology & Immunology, Drexel University College of Medicine
8-Sep	11:00 - 11:59 PM	Influenza - September 8th	Deep mutational scanning of SARS-CoV-2 receptor binding domain reveals constraints on folding and ACE2 binding	Tyler Starr, PhD HHMI Damon Runyon Postdoctoral Fellow in Jesse Bloom's lab, Fred Hutchinson Cancer Research Center

8-Sep	11:00 - 11:59 PM	Influenza - September 8th	Development of Respiratory Syncytial Virus and Universal Influenza Virus Vaccines Conformationally Stabilized by Targeted Dityrosine Crosslinking	Mark A. Yondola, PhD Vice President, Research and Development, Calder Biosciences, Inc.
8-Sep	11:00 - 11:59 PM	Influenza - September 8th	Nanoparticle-based next-generation influenza vaccines	Masaru Kanekiyo, DVM, PhD Head, Molecular Immunoengineering Unit, Viral Pathogenesis Laboratory, Vaccine Research Center, NIAID
8-Sep	11:00 - 11:59 PM	Modeling Approaches - September 8th	Recombination, lineage-specific mutations and the emergence of SARS-CoV-2	Ioan Filip, PhD Associate Research Scientist, Columbia University
9-Sep	06:00 - 07:00 AM	Immunology - September 9th	Keynote Presentation: Causes and consequences of immune gene diversity in plants	Detlef Weigel, Executive Director Max Planck Institute for Developmental Biology
9-Sep	07:30 - 08:30 AM	Immunology - September 9th	Using cryo-EM for designing next-gen therapeutics against HIV	Dmitry Lyumkis, PhD Assistant Professor Laboratory of Genetics The Salk Institute for Biological Studies
9-Sep	09:00 - 10:00 AM	Immunology - September 9th	Keynote Presentation: Human Monoclonal Antibodies for Emerging Agents	James Crowe, MD Director of the Vanderbilt Vaccine Center, Ann Scott Carell Professor of Pediatrics, Pathology, Microbiology and Immunology
9-Sep	10:00 - 11:00 AM	Immunology - September 9th	Immunoprotective vs. immunopathogenic responses during fungal-associated allergic airway inflammation	Chad Steele, PhD Professor and Chair, Department of Microbiology and Immunology Tulane University
9-Sep	12:00 - 12:45 AM	Immunology - September 9th	A New KIR Haplotype MSA Empowers Two New Interpretation Algorithms	David Roe PhD candidate Bioinformatics and Computational Biology, University of Minnesota
9-Sep	12:00 - 12:45 AM	Immunology - September 9th	Bacterial Epigenomes: Technology, Pathogens and Microbiome	Gang Fang Associate Processor, Genomics Department, Icahn School of Medicine at Mount Sinai
9-Sep	12:00 - 12:45 AM	Immunology - September 9th	Environmental stress shapes the evolution of a plant viruses towards a mutualistic relationship with its host	Santiago F. Elena Professor, CSIC, Chairman, Head of the Evolutionary and Systems Virology Group, Institute for Integrative Systems Biology

9-Sep	12:00 - 12:45 AM	Immunology - September 9th	Fc gamma receptor activation during viral infections: a double-edged sword	Raymond A. Alvarez, PhD Assistant Professor, Division of Infectious Diseases, Ichan School of Medicine at Mount Sinai, Co-Founder and CEO, Ichor Biologics
9-Sep	12:00 - 12:45 AM	Immunology - September 9th	How Plant Virology Informs Emergence of Zoonotic Viruses Such as SARS-COV-2	Michael Goodin, PhD Professor, Department of Plant Pathology, University of Kentucky
9-Sep	12:00 - 12:45 AM	Immunology - September 9th	Immune-derived extracellular traps in COVID-19 and other infections	Imre Varju, MD, PhD, MPH Research Fellow, Semmelweis University, Academic Trainee, Columbia University Mailman School of Public Health
9-Sep	12:00 - 12:45 AM	Immunology - September 9th	Leveraging SMRT sequencing to resolve complex immune loci	Melissa L. Smith, PhD Assistant Professor, Biochemistry and Molecular Genetics, University of Louisville
9-Sep	12:00 - 12:45 AM	Immunology - September 9th	Lung immune cells as drivers of influenza outcomes	Juliet Morrison, PhD Assistant Professor, Department of Microbiology and Plant Pathology University of California, Riverside
9-Sep	12:00 - 12:45 AM	Immunology - September 9th	Understanding the role of virus-host interactions in tissue tropism of plant viruses	Svetlana Y. Folimonova Associate Professor, Department of Plant Pathology, Plant Molecular and Cellular Biology Program, University of Florida
10-Sep	06:00 - 07:00 AM	Infectious Disease - September 10th	Structure-guided design of SARS-CoV-2 antivirals	Quan Wang, PhD Assistant Professor Principal Investigator ShanghaiTech University Renhong Yan, PhD Postdoctoral Researcher Westlake University
10-Sep	07:30 - 08:30 AM	Microbial Communities - September 10th	Keynote Presentation: Discovery of a gene-microbiome interaction in lung cancer: lessons learned and future directions	K. Leigh Greathouse, PhD, MPH, MS, RD Assistant Professor, Baylor University
10-Sep	09:00 - 10:00 AM	Infectious Disease - September 10th	Congenital Cytomegalovirus - An Unrecognized and Preventable Problem: Fundamentals of Prevention, Diagnosis and Management	William Rawlinson, PhD Director of Serology and Virology Division (SAViD), Director Organ and Tissue Donor screening laboratory, Director NSW State Reference Laboratory for HIV, Chair Biosecurity Quality Assurance
10-Sep	10:00 - 11:00 AM	Microbial Communities - September 10th	Keynote Presentation: Squeezing out understanding from sequences: Genome to Phenome Connections in Viruses of Microbes	K. Eric Wommack Fellow American Academy for Microbiology, Deputy Dean and Assoc. Dean for Research & Graduate Education, College of Agriculture & Natural Resources, University of Delaware

10-Sep	11:00 - 12:00 PM	Microbial Communities - September 10th	Optimizing the extraction of human microbiome samples	Dominic O'Neil, MS, MBA Director of Microbiome Product Development, QIAGEN
10-Sep	12:00 - 01:00 PM	Infectious Diseases - September 10th	Bacterial strain typing and genomics characterization of multi-drug resistance with QIAGEN CLC Genomics Workbench	Jonathan Jacobs, PhD Senior Director of Bioinformatics, ATCC
10-Sep	01:00 - 02:00 PM	Infectious Disease - September 10th	Keynote Presentation: Evolution of host-specific virulence in an RNA virus of Pacific salmonid fish	Gael Kurath, PhD Research Virologist, Fish Health Section, USGS Western Fisheries Research Center
10-Sep	02:00 - 03:00 PM	Microbial Communities - September 10th	Dynamic live yeast and bacterial cell imaging using CellASIC ONIX2 microfluidic platform	Cindy Chen, PhD Applications Lead
10-Sep	03:00 - 04:00 PM	Microbial Communities - September 10th	Plant Microbiome: Harnessing Core Microbiome for Sustainable Agricultures	Brajesh Singh Professor, Western Sydney University
10-Sep	12:00 - 12:45 AM	Microbial Communities - September 10th	A novel strategy to investigate longitudinal changes within the gut microbiome: Insights from mouse models of sepsis and Alzheimer's disease	Candice M. Brown, PhD Assistant Professor, Department of Neuroscience and Rockefeller Neuroscience Institute, West Virginia University School of Medicine
10-Sep	12:00 - 12:45 AM	Infectious Disease - September 10th	Challenges in tracking horizontal gene transfer of antimicrobial resistance	Amy Mathers, MD, D(ABMM) Associate Professor of Medicine and Pathology, University of Virginia
10-Sep	12:00 - 12:45 AM	Infectious Disease - September 10th	Host responses to SARS-CoV-2	Angela L. Rasmussen, PhD Associate Research Scientist, Center for Infection and Immunity, Columbia Mailman School of Public Health
10-Sep	12:00 - 12:45 AM	Infectious Disease - September 10th	Identifying and linking antimicrobial resistance genes in metagenomes with new DNA sequencing technologies	Derek Bickhart, PhD Research Microbiologist/Bioinformatician, US Department of Agriculture's Dairy Forage Research Center
10-Sep	12:00 - 12:45 AM	Microbial Communities - September 10th	Insights into Aquatic Biofilm Dynamics by High-Throughput Identification of Bacterial Isolates and Full-Length 16S rRNA Gene Surveys	Joerg Graf, PhD Professor and Associate Department Head, Molecular and Cell Biology, University of Connecticut

10-Sep	12:00 - 12:45 AM	Microbial Communities - September 10th	Long read sequencing of the 16S-23S rRNA operon to characterize gut microbial changes associated with multiple sclerosis	Erin Longbrake, MD, PhD Assistant Professor of Neurology, Yale University
10-Sep	12:00 - 12:45 AM	Microbial Communities - September 10th	Precision infectious disease discovery using next-generation sequencing and AI to provide insights into respiratory, urine, and stool samples	Niamh O'Hara, PhD Co-founder and CEO of Biotia, Research Assistant Professor at SUNY Downstate Health Sciences University
10-Sep	12:00 - 12:45 AM	Infectious Disease - September 10th	Visualizing viral replication of oncogenic human herpesviruses	Lindsey M. Costantini, PhD Assistant Professor, Biological and Biomedical Sciences, North Carolina Central University