

Genetics Virtual Week

Including Genomics, Molecular Diagnostics & Precision Medicine

APRIL 21-23, 2020



| Date | Time | Track | Presentation Title | Speaker |
|--------|---------------------------|-----------------------|---|---|
| 21-Apr | 06:00 - 07:00 AM | Molecular Diagnostics | Advantages of digital PCR and its applications - the power of partitioning | Daniel Heinz Löfgren, MSc. Market Development Manager PCR/dPCR EMEA |
| 21-Apr | 07:30 - 08:30 AM | Genomics | Novel CRISPR Knock-In Technology for the Robust Analysis of Cells and Tissue | Scott H. Soderling, PhD Founder and CSO, CasTag Biosciences Chair and Professor of Cell Biology, Duke University |
| 21-Apr | 10:30 - 11:30 AM | Genomics | Long HiFi Reads for High-Quality Genome Assemblies | Jonas Korlach, PhD Chief Scientific Officer, Pacific Biosciences |
| 21-Apr | 10:30 - 11:30 AM | Genomics | Optimizing human karyomapping to phase single Igene defects with improved DNA amplification | Samuel Rulli, PhD Senior Global Product Manager, RNA Profiling , QIAGEN |
| 21-Apr | 12:00 - 01:00 PM | Genomics | Expanding the Hi-C toolbox: New high-resolution approaches for diploid genome phasing, protein-directed chromatin architecture mapping and more | Iain Russell, PhD Associate Director of Marketing |
| 21-Apr | 01:30 - 02:30 PM | Genomics | Spatially Resolved Molecular Investigation of Triple Negative Breast Cancer | Dina Finan, PhD Senior Product Manager Stephen Williams, PhD Senior Computational Biologist, 10x Genomics |
| 21-Apr | 12:00 - 12:05 AM | Genomics | Bionano Genome Imaging: unbiased, genome-wide structural variation detection in genetic disease and cancer, down to 1% allele fraction | Sven Bocklandt, PhD Sr. Director of Scientific Affairs & Marketing, Bionano Genomics |

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| 21-Apr | 12:00 - 12:05 AM | Genomics | Contribution of transposons to structural variation and phenotypic diversity in tomato | Matthias Benoit, PhD Research Associate, Lippman Lab, Howard Hughes Medical Institute, Cold Spring Harbor Laboratory |
| 21-Apr | 12:00 - 12:05 AM | Genomics | Single cell gene expression: new insights through the lens of full length mRNA isoform resolution | Jason G. Underwood, PhD Principal Scientist |
| 21-Apr | 12:00 - 12:05 AM | Genomics | Single Cell Multi-omics: Solving the Jigsaw | Ivan K. Lukić, MD, PhD Senior Field Application Scientist, Partek |
| 21-Apr | 05:30 - 05:35 PM | Genomics | PRINCESS: A Framework for Comprehensive Detection and Haplotype Phasing of SNPs and Structural Variants | Medhat Mahmoud, PhD Postdoctoral Associate |
| 21-Apr | 12:00 - 01:00 PM | Genomics | SNVs to Large Structural Variation: Capturing nucleotide through inter-chromosomal variants through a powerful three-dimensional data type | Cory Padilla, PhD Head of Scientific Affairs, Dovetail Genomics |
| 22-Apr | 06:00 - 07:00 AM | Genomics | Improved Genome Editing Using Single-Stranded DNA | Ye Chen, PhD Associate Director of Research and Development for GENEWIZ |
| 22-Apr | 09:00 - 10:00 AM | Genomics | From Data to Biological Insight using QIAGEN OmicSoft and IPA: Single Cell Sequencing of Normal Human Liver | Jean-Noel Billaud, PhD Senior Principal Scientist, QIAGEN Digital Insights |
| 22-Apr | 12:00 - 12:05 AM | Precision Medicine | Aggregating and Sharing Clinical Evidence to Improve the Diagnosis of Rare Diseases | Ben Liesfeld, PhD Co-Founder and Managing Director, Limbus Medical Technologies |
| 22-Apr | 12:00 - 12:05 AM | Precision Medicine | Clinical Applications of Estrogen Metabolism Genetic Testing: Improving Estrogen Health, Preventing Breast Cancer and Prescribing Estrogenic Medications with Precision | T.J. Hills Breast Cancer Prevention Advocate & Author |
| 22-Apr | 12:00 - 12:05 AM | Precision Medicine | Genomic Landscapes: Leveraging Genetic Evidence throughout the Pharma Pipeline | Mark Kiel, MD, PhD Co-Founder and Chief Science Officer, Genomenon |

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| 22-Apr | 12:00 - 12:05 AM | Precision Medicine | Long-range technologies resolve complex genomic regions overlooked by short-read sequencing | Mark Ebbert, PhD Mayo Clinic |
| 22-Apr | 12:00 - 12:05 AM | Precision Medicine | Nanotherapeutics: An insight into healthcare and future multi-dimensional clinical applications | Pratibha Kakadia, PhD Research Affiliate, Integrative Behavioural Health Research Institute |
| 22-Apr | 12:00 - 12:05 AM | Precision Medicine | Population Health and Genetic Testing | Matthew J. Ferber, PhD, FACMG Associate professor and consultant in the Department of Laboratory Medicine and Pathology, Founder and director of the Clinical Genome Sequencing Laboratory at Mayo |
| 22-Apr | 12:00 - 12:05 AM | Molecular Diagnostics | Precision Infectious Disease Diagnostics Using Next-Generation Sequencing and AI | Dorottya Nagy-Szakal, MD PhD Chief Medical Officer, Biotia, Research Assistant Professor, Department Cell Biology/College of Medicine, SUNY Downstate Health Sciences University |
| 22-Apr | 12:00 - 12:05 AM | Precision Medicine | Priming the Precision Medicine Pipeline: New Models for Applied Genomics Education | Barbara Kraatz Fortini, PhD Program Director, MS in Human Genetics and Genomic Data Analytics, Assistant Professor of Genetics, School of Pharmacy and Health Sciences at the Keck Graduate Institute |
| 22-Apr | 12:00 - 12:05 AM | Precision Medicine | Rapid Diagnosis of Complex Rare Disease Cases Using Exome Sequencing | Louisa Ive, MSc HCPC Clinical Scientist, Congenica |
| 22-Apr | 12:00 - 12:05 AM | Precision Medicine | RNA-seq for the Detection of Gene Fusions in Tumors | Kevin Halling, MD, PhD Mayo Clinic |
| 22-Apr | 12:00 - 12:05 AM | Molecular Diagnostics | The Cardean Transistor Infrastructure: using cloud-analysis software and "lab on a chip" technology to develop handheld readers for rapid virus detection | Brett Goldsmith, PhD Co-Founder and CTO, Cardea Bio |
| 23-Apr | 06:00 - 07:00 AM | Precision Medicine | Latest Applications of PacBio Sequencing for Clinical Research | Jonas Korlach, PhD Chief Scientific Officer, Pacific Biosciences |
| 23-Apr | 07:30 - 08:30 AM | Precision Medicine | Keynote Presentation: The Massively Parallel Sequencing (MPS) Revolution | David Smith, PhD Professor and Consultant, Department of Laboratory Medicine and Pathology, Mayo Clinic |

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| 23-Apr | 09:00 - 10:00 AM | Precision Medicine | Keynote Presentation: Individualized Health | Michael Snyder, PhD Stanford Ascherman Professor, Chair of Genetics Director of the Center of Genomics and Personalized Medicine |
| 23-Apr | 10:30 - 11:30 AM | Precision Medicine | Keynote Presentation: Systematic identification of therapeutic strategies that leverage tumor evolution | Kris C. Wood, PhD Associate Professor, Department of Pharmacology and Cancer Biology, Duke University |