



Almaden Institute 2014: Sequence the City

Metagenomics in the Era of Big Data

May 6, 2014

8:00	Registration and Continental Breakfast	12:30	Lunch
9:00	Welcome to Sequence the City Robert Prill, Ph.D. <i>Research Staff Member - Bioinformatics, IBM Research - Almaden</i>	1:30	Genomic Analytics with IBM Watson Ajay Royyuru, Ph.D. <i>Director, Computational Biology Center, IBM Thomas J. Watson Research Center</i>
9:10	IBM Research Overview: Accelerating Discovery Jeff Welser, Ph.D. <i>Vice President and Lab Director, IBM Research - Almaden</i>	2:15	Initiatives and Impact Panel Laurie Garrett, Ph.D. (Moderator) <i>Council on Foreign Relations</i> Ann Marie Kimball, MD <i>Program Manager, Bill and Melinda Gates Foundation</i> Christopher Mentzel <i>Program Director, Gordon and Betty Moore Foundation</i> Paula Olsiewski, Ph.D. <i>Program Director, Alfred P. Sloan Foundation</i>
9:30	Large-scale Cancer Genomics David Haussler, Ph.D. <i>Investigator, Howard Hughes Medical Institute, Director, Center for Biomolecular Science & Engineering, University of California, Santa Cruz</i>	3:15	Break
10:15	Fast and Accurate Analysis of Metagenomic Sequencing Reads Daniel Huson, Ph.D. <i>Professor, Algorithms in Bioinformatics, Tübingen University</i>	3:45	The Microbiology of the Built Environment Network (microBEnet) Jonathan Eisen, Ph.D. <i>Professor, Genome Center, University of California, Davis</i>
10:45	Break	4:30	Can Bioinformed Design Promote Healthy Urban Ecosystems? Jessica Green, Ph.D. <i>Professor, University of Oregon and Santa Fe Institute</i>
11:15	Next-Gen Sequencing for Discovery and Diagnosis of Infectious Disease Joe DeRisi, Ph.D. <i>Investigator, Howard Hughes Professor, University of California, San Francisco</i>	5:00	Reception
12:00	Microbes, Sewage, Health and Disease: Mapping the New York City Metagenome Jane Carlton, Ph.D. <i>Director, Center for Genomics, Center for Genomics & Systems Biology, New York University</i>	7:00	End of day one



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May 7, 2014

8:00	Registration and Continental Breakfast	1:30	PathoMap - The Molecular Phylogeographical Dynamics of NYC's Subway and Surface Microbiomes
9:00	Welcome Robert Prill, Ph.D. <i>IBM Research - Almaden</i>		Chris Mason, Ph.D. <i>Assistant Professor, Physiology and Biophysics, Weill Cornell Medical College</i>
9:05	Opportunities and Challenges in Metagenomic Characterization Mark Adams, Ph.D. <i>Scientific Director, J. Craig Venter Institute</i>	2:00	Sequencing Chicago: Microbiology of the Built Environment Jack Gilbert, Ph.D. <i>Associate Professor, University of Chicago</i>
9:50	Modeling Bacteria in Human Communities Eric Alm, Ph.D. <i>Associate Professor, Biological Engineering, MIT; Associate Member, Broad Institute</i>	2:10	NGS in Food Safety: Implementation for Public Health and Disease Dynamics Bart Weimer, Ph.D. <i>Professor, School of Veterinary Medicine, University of California, Davis</i>
10:20	Break	2:55	Break
10:45	Uncovering Structure-Function in Viral Proteins using High-density Population Genetics Raul Andino, Ph.D. <i>Professor, Microbiology and Immunology, Univ. of California, San Francisco</i>	3:25	Metagenomics and Food Safety in a Global Supply Chain David Crean <i>Global Head of Food Safety, Mars</i>
11:30	Sequencing Technology Panel Jack Gilbert, Ph.D. (Moderator) <i>Associate Professor, Ecology and Evolution, University of Chicago</i> Brett Bowman, Ph.D. <i>Lead Scientist Metagenome Applications, Pacific Biosciences</i> Radoje (Rade) Drmanac, Ph.D. <i>Senior VP BGI; Director and Chief Scientific Officer, Complete Genomics</i> Scott Kahn, Ph.D. <i>Vice President, Commercial Enterprise Informatics, Illumina</i> Mike Lelivelt, Ph.D. <i>Director of Software Products, Ion Torrent Life Science Solutions</i>	3:55	Flies as Vectors of Food-borne Pathogens: A Metagenomic Analysis of "The Excretome" Astri Wayadande, Ph.D <i>Assistant Director, Food & Agricultural Biosecurity, Oklahoma State University</i>
		4:25	Regulatory Food Safety Applications for Metagenomics at the FDA: the Good, the Bad, and the Unwieldy Christopher Elkins, Ph.D. <i>Director, Div. Molecular Biology, FDA</i>
		4:55	Concluding Remarks Robert Prill, Ph.D. <i>IBM Research - Almaden</i>
12:40	Lunch	5:00	End of day two