Data Analytics – Genomics and Beyond

Day 1
Monday April 23rd 2018

12:00 pm -4:00 pm	Registration and Poster set up
2:00 pm – 4:00 pm	**Workshop by TriNetx** https://www.trinetx.com/
4:00 pm – 4:30 pm	Break
4:30 pm – 7:30 pm	Poster and Reception

Day 2
Tuesday April 24th 2018

7:00 am – 8:00 am	**Registration and Breakfast**
8:00 am – 8:15 am	**Opening Remarks and Welcome** • Jerry B. Adams President/CEO, Arkansas Research Alliance, Conway, AR • Stephanie Gardner, Pharm.D., Ed.D. Interim Chancellor, University of Arkansas for Medical Sciences, Little Rock, AR
8:15 am – 11:45 am	**Session 1: Data Analytics for Genomics** **Session Co-Chairs** • David W. Ussery, Ph.D., Professor, Biomedical Informatics, University of Arkansas for Medical Sciences, Little Rock, AR • Fred Prior, Ph.D., Professor and Chair, Biomedical Informatics, University of Arkansas for Medical Sciences, Little Rock, AR
8:15 am – 8:45 am	**MG-RAST, a Metagenomics Service for Analysis of Microbial Community Structure and Function** Folker Meyer, Ph.D., Argonne National Laboratory, University of Chicago, Argonne, IL
8:45 am – 9:150 am	**What is Life? Five-hundred Functional Domains found in all genomes across the Tree of Life** David W. Ussery, Ph.D., Professor, Biomedical Informatics, University of Arkansas for Medical Sciences, Little Rock, AR
9:15 am – 9:45 am	**Precision Medicine Clinical Trials and the Role of Liquid Biopsies** Donald Johann, Jr, M.D., Associate Professor, Biomedical Informatics, University of Arkansas for Medical Sciences, Little Rock, AR
9:45 am – 10:15 am	**Break**
10:15 am – 10:45 am	**Whole genome resequencing for mapping the genetics of hypertension in broilers**

	Douglas Duane Rhoads, Ph.D., Professor, Department of Biological Sciences, University of Arkansas, Fayetteville, AR
10:45 am – 11:15 am	**Integrative analysis identifies potential DNA methylation biomarkers for pan-cancer diagnosis and prognosis** Tieliu Shi, Ph.D., East China Normal University, Shanghai, China
11:15 am – 11:45 am	**RNA-seq and its applications** Mary Yang, Ph.D., Associate Professor, University of Arkansas at Little Rock, Little Rock, AR
11:45 am – 1:00 pm	**Lunch**
1:00 pm – 5:00 pm	**Session 2 – Data Analytics Beyond Genomics** **Session Co-Chairs** - Weida Tong, Ph.D., Director, Division of Bioinformatics and Biostatistics, National Center for Toxicological Research, US FDA, Jefferson, AR - John R. Talburt, Ph.D., Professor, University of Arkansas at Little Rock, Little Rock, AR
1:00 pm – 1:30 pm	Zak Joundi, MISO
1:30 pm – 2:00 pm	**Disruptive Technology and Business Model Trends** Gary Dowdy, B.S., MBA, Head of Innovation and Disruptive Technology J. B. Hunt
2:00 pm – 2:30 pm	**Beyond connecting the dots: network clustering algorithms and their applications**
2:30 pm – 3:00 pm	**Break**
3:00 pm – 3:30 pm	**Real World Text Mining at FDA/NCTR** Joe Meehan , Ph.D., Computer Scientist, Division of Bioinformatics and Biostatistics, National Center for Toxicological Research, US FDA, Jefferson, AR
3:30 pm – 4:00 pm	**Natural Language Processing – Techniques and Applications to Bioinformatics** Susan E. Gauch, Ph.D., Professor, Department of Biological Sciences, University of Arkansas, Fayetteville, AR
4:00 pm – 4:30 pm	**From *in silico* drug design and discovery to commercialization** Cesar Compadre, Ph.D., Professor, University of Arkansas for Medical Sciences, Little Rock, AR
4:30 pm – 5:00 pm	**Regulatory applications of Quantitative Structure Activity Relationship (QSAR)** Weida Tong, Ph.D., Director, Division of Bioinformatics and Biostatistics, National Center for Toxicological Research, US FDA, Jefferson, AR
5:00 pm – 5:10 pm	**Closing Remarks** Weida Tong, Ph.D., Director, Division of Bioinformatics and Biostatistics, National Center for Toxicological Research, US FDA, Jefferson, AR