# DEAN'S WORKSHOP Inauguration of the Yale Center for Biomedical Data Science

# Wednesday, February 7, 2018 1:00–5:00 pm The Anlyan Center Auditorium 300 Cedar St., New Haven

Reception to follow in TAC lower lobby

The new field of biomedical data science has developed in response to a great increase in the amount of biomedical data, stemming from the expanding application of large-scale genomic sequencing, other large 'omics' data generation efforts, imaging, mobile and wearable devices, and electronic medical records. These exciting new research directions have strengths at Yale in fields ranging from basic biological research to clinical investigation. This has led to creation of the new Yale Center for Biomedical Data Science (CBDS) as a focus for our emerging data science community in computational data science and informatics. The center will enhance research at the medical school and at Yale as a whole in the broad area of biomedical data science from complex machine learning models, to simulations of molecular, cellular, and organismic systems. CBDS will act as a hub for educational activities related to data science and will provide a community for investigators university-wide with research interests in biomedical data science. This Dean's Workshop will introduce the new center and highlight faculty from many departments across Yale with a focus on the large amounts of data and ensuing analyses.

# Yale Center for Biomedical Data Science

Website medicine.yale.edu/cbds

Contact cbds@yale.edu

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# WELCOMING REMARKS, 1:00 PM

Ruth R. Montgomery, Ph.D. Associate Professor of Internal Medicine, Associate Dean for Scientific Affairs

## OVERVIEW OF THE CENTER FOR BIOMEDICAL DATA SCIENCE, 1:15-1:45 PM

# Bioinformatics at Yale Mark Gerstein, Ph.D.

Albert L Williams Professor of Biomedical Informatics and Professor of Molecular Biophysics & Biochemistry, and of Computer Science

# Hongyu Zhao, Ph.D.

Department Chair and Ira V. Hiscock Professor of Biostatistics, Professor of Genetics and Professor of Statistics and Data Science

### **TOPICS IN BIOMEDICAL DATA SCIENCE, 1:45-3:15 PM**

### Murat Günel, M.D.

Nixdorff-German Professor of Neurosurgery and Professor of Genetics and of Neuroscience; Chair, Department of Neurosurgery; Chief, Neurosurgery, Yale New Haven Health System

**Monika Jadi, Ph.D.** *Assistant Professor of Psychiatry and Neuroscience* 

**Smita Krishnaswamy, Ph.D.** Assistant Professor of Genetics and of Computer Science

Harlan Krumholz, M.D., SM Harold H. Hines, Jr. Professor of Medicine (Cardiology) and Professor in the Institute for Social and Policy Studies, of Investigative Medicine and of Public Health (Health Policy)

Andre Levchenko, Ph.D. John C. Malone Professor of Biomedical Engineering; Director, Yale Systems Biology Institute

Daniel A. Spielman Ph.D. Henry Ford II Professor of Computer Science and Professor of Statistics and Data Science

### BREAK, 3:20 PM

### PLENARY SPEAKER, 3:30-4:30 PM

Hidden immunology signals from TCGA tumor RNA-seq data X. Shirley Liu, Ph.D. Professor of Statistics, Biostatistics and Computational Biology, Harvard T.H. Chan School of Public Health

### PANEL DISCUSSION, 4:30-5:00 PM

POSTER SESSION WITH RECEPTION, 5:00-6:00 PM

