Precisely Practicing Medicine from 700 Trillion Points of Data

Atul Butte, UCSF

There is an urgent need to take what we have learned in our new data-driven era of medicine, and use it to create a new system of precision medicine, delivering the best, safest, cost-effective preventative or therapeutic intervention at the right time, for the right patients. Dr. Butte, a computer scientist and pediatrician, will highlight how the University of California Health System is integrating electronic health records data across the entire University of California under strong consideration of data and privacy protections, and how safe and respectful analytics on this “real world data” can lead to new evidence for drug efficacy, new savings from better medication choices, and new methods to teach intelligence – real and artificial – to more precisely practice medicine.

Atul Butte, MD, PhD is the Priscilla Chan and Mark Zuckerberg Distinguished Professor and inaugural Director of the Bakar Computational Health Sciences Institute (bchsi.ucsf.edu) at the University of California, San Francisco (UCSF). Dr. Butte is also the Chief Data Scientist for the entire University of California Health System, with 17 health professional schools, 6 medical centers, and 10 hospitals. Dr. Butte has been continually funded by NIH for 20 years, is an inventor on 24 patents, and has authored over 200 publications, with research repeatedly featured in the New York Times, Wall Street Journal, and Wired Magazine. Dr. Butte was elected into the National Academy of Medicine in 2015, and in 2013, he was recognized by the Obama Administration as a White House Champion of Change in Open Science for promoting science through publicly available data. Dr. Butte is also a founder of three investor-backed data-driven companies: Personalis, providing medical genome sequencing services, Carmenta (acquired by Progenity), discovering diagnostics for pregnancy complications, and NuMedii, finding new uses for drugs through open molecular data. Dr. Butte trained in Computer Science at Brown University, worked as a software engineer at Apple and Microsoft, received his MD at Brown University, trained in Pediatrics and Pediatric Endocrinology at Children’s Hospital Boston, then received his PhD from Harvard Medical School and MIT.

For questions contact Brooke Miller-Jacobs at (916) 445-5161 or bmmillerjacobs@ucdavis.edu

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