Highlights of Precision Medicine at UCSF

- **Bakar ImmunoX Initiative**: By organizing researchers from various disease areas around a set of “CoProjects,” this program aims to catalyze discoveries about the central role of the immune system in human health.

- **Precision Diagnosis of Acute Infectious Diseases**: UCSF researchers pioneered the demonstration of precision medicine in infectious diseases with metagenomic next-generation sequencing (NGS) to diagnose brain and blood infections at three UC medical centers.

- **SF CAN**: The San Francisco Cancer Initiative is a collaborative effort to reduce cancer in San Francisco by using data to identify highest burden across the city and by engaging health care systems, government, community groups, and residents.

- **SmarterHealth**: This initiative at the Center for Digital Health Innovation has co-developed AI algorithms to improve the timely detection of life-threatening conditions. These will be integrated into GE Healthcare’s next-generation X-ray scanners and available for clinical use as early as 2019.

- **UCSF Center for Maternal-Fetal Precision Medicine**: This transdisciplinary program is designed to improve understanding and treatment of patients with congenital anomalies and pregnancy complications.

- **UCSF MS Bioscreen**: Clinical, imaging, and biomarker data is framed within the context of a large cohort of multiple sclerosis patients to lead to more precise clinical decisions and patient empowerment.

- **Information Commons**: The UCSF Information Commons provides a shared repository of data, tools, and models for today’s demands of integrative research and precision medicine.

- **SPOKE**: A knowledge network that captures the essential structure of biomedicine and human health, visualized in node-arc graphs to identify patterns and connections between genetics, epigenomics, proteins, tissues, organs, clinical phenotypes, environment and lifestyle.

[precisionmedicine.ucsf.edu]
The Precision Medicine Platform

"Our vision is to fulfill the promise of precision medicine by pioneering a knowledge network that yields the seeds for new discoveries, better outcomes, and greater value and equity to improve health for all."

– Keith Yamamoto, PhD, Vice Chancellor for Science Policy and Strategy

Precision medicine aggregates, integrates, and analyzes data from basic science, clinical, personal, environmental and population health settings, to better understand biological processes and define disease mechanisms, and to develop and deliver more precise diagnostics, therapeutics, and preventive measures. Everyone, including patients, can contribute their own data to this dynamic process.

Learn more at precisionmedicine.ucsf.edu