Contact: Wendy Zellner, UPMC
Phone: 412 586 9777
E-mail: ZellnerWL@UPMC.edu

Contact: Byron Spice, CMU
Phone: 412 268 9068
E-mail: bspice@cs.cmu.edu

FOR IMMEDIATE RELEASE

UPMC to Fund First 6 Projects From Pittsburgh Health Data Alliance

PITTSBURGH, March 22, 2016 – In an effort to solve some of health care's toughest challenges through the innovative use of technology, UPMC Enterprises announced today that it will fund the first six projects created under the umbrella of the Pittsburgh Health Data Alliance.

With this funding, University of Pittsburgh and Carnegie Mellon University (CMU) researchers will develop technologies aimed at reducing patient falls, preventing and monitoring pressure ulcers, improving the accuracy of cancer diagnoses and providing personalized treatment recommendations, among other benefits. UPMC's funding for these innovations is expected to total more than $3 million over the next six months, as the commercial potential of these products is further explored.

"We are excited to move forward with the first of many exceptional ideas in the Health Data Alliance pipeline," said Tal Heppenstall, president of UPMC Enterprises. "This promising start bodes well for the Alliance's goal of transforming health care by unleashing the creativity and entrepreneurialism of leading scientists and clinicians in Pittsburgh."

Announced in March 2015, the Pittsburgh Health Data Alliance is a unique collaboration among UPMC, the University of Pittsburgh and CMU. It will focus on building new companies that create data-intensive software and services, with the potential to revolutionize health care and wellness.

These first-funded projects are being developed by the Alliance's CMU-led Center for Machine Learning and Health (CMLH), spearheaded by Eric Xing, Ph.D., a professor in the Machine Learning Department, and Pitt's Center for Commercial Applications of Healthcare Data (CCA), led by Michael Becich, M.D., Ph.D., chair of the Department of Biomedical Informatics at Pitt.

The first CMLH project is the **Clinical Genomics Modeling Platform**, an engine for easily building precision-medicine models for various diseases and populations. Triage algorithms, for instance, might help to determine if patients with a certain disease should be sent home with monitoring or sent to the intensive care unit. Carl Kingsford, Ph.D., and Christopher Langmead, Ph.D., both associate professors of computational biology, are leading this development.

The funded CCA projects are:

- **MEDIvate**, a patient-centered smartphone application that will make it easy for patients to update and share medication lists. Current medications will be added directly to the application from the provider's electronic medical record or by the patient, ensuring accuracy and reducing medication errors. MEDIvate, led by Philip Empey, Pharm.D., Ph.D., and James Coons, Pharm.D., also will be a personal medication coach, reminding patients to take medications and linking them to key facts and educational videos on-demand from pharmacist experts.

- The **Tumor-specific Driver Identification** (TDI) **System**, software that will provide personalized genomic information to cancer clinicians about the genetic drivers of an individual patient's tumors. Tumor-specific algorithms will be used for real-time mining of genetic "big data" that will enable personalized treatments for cancer patients. TDI also is expected to lead to the discovery of new cancer drivers and may be used by pharmaceutical companies to identify novel drugs. Investigators on this project are Xinghua Lu, M.D., Ph.D., and Gregory Cooper, M.D., Ph.D., of the Department of Biomedical Informatics.

- **Fall Sentinel**, led by Richard D. Boyce, Ph.D., Department of Biomedical Informatics. This automated system will make it possible for clinical pharmacists to continuously monitor patients in nursing homes, especially for potential drug-drug interactions that might lead to falls. Nursing home falls are one of the most common and dangerous events for patients, with treatment costing the nation's health system more than $4 billion each year.

- **PUMP**, a solution aimed at reducing hospital-acquired pressure ulcers, affecting an estimated 3 million patients annually. The monitoring and alert solutions, using wearable devices and hospital bed sensors, will provide real-time documentation of patient repositioning and a process to improve compliance with these preventative measures. J. Peter Rubin, M.D., UPMC Professor and Chair of Plastic Surgery, is spearheading this effort.

- **ComPACD**, or Computational Pathology for Accurate Cancer Diagnosis. This software will aid pathologists in delivering more accurate diagnoses from complex tumor images. Initially, the focus is on breast cancer, where misdiagnosis rates for certain cancers often lead to deadly progression of the disease. The principal investigators are associate professor Chakra Chennubhotla, Ph.D., and professor D. Lansing Taylor, Ph.D., who are both members of Pitt's Department of Computational and Systems Biology.

With UPMC's vast resources and world-class clinical expertise, the leaders of these projects will further develop their ideas and examine their broader market potential. Based on those results, UPMC Enterprises may provide additional funding and development help as it seeks to create a thriving ecosystem of innovative health care companies in western Pennsylvania.

"These projects represent some of the key areas of focus for UPMC Enterprises, namely clinical tools that will transform the delivery of care, population management that will be essential in health care's move from volume to value, consumer-centric health care, and business services that improve efficiency," said Mr. Heppenstall. "We're excited to work with these inventor-scientists to change the face of America's health care system."

For more information about UPMC Enterprises, visit www.upmcenterprises.com.

For more information about the Pittsburgh Health Data Alliance, visit http://healthdataalliance.com/.

# # #

www.upmc.com/media