The University of Pittsburgh Mobile Sensing + Health Institute (MoSHI)

The University of Pittsburgh’s Mobile Sensing + Health Institute was founded in 2018 through a collaboration between UPMC Hillman Cancer Center and Carnegie Mellon University. Under the direction of Dr. Carissa Low, MoSHI strives to support the use of mobile technology to monitor and change unhealthy behavior and improve mental and physical well-being. MoSHI fosters collaborations between experts in computer science, behavioral science, and medicine. Low notes that “As mobile technology becomes increasingly ubiquitous, sophisticated, and integrated into our daily lives, new research methods are needed to leverage the data collected by mobile devices and to optimize evidence-based interventions for mobile delivery. MoSHI aims to create and support a community of biomedical researchers using mobile technology so that we can learn from each other, advance the field, and capitalize on local expertise in computer and data science.”

MoSHI’s team works with researchers to collect behavioral information from smartphone and wearable sensors with the ultimate goal of improving participant health outcomes. MoSHI is exploring research applications like whether or not mobile sensing can be used to monitor symptoms during chemotherapy or during and after treatment for depression. The institute is also investigating the use of mobile sensing to reduce sedentary behavior before and after surgery and to deliver personalized behavioral interventions.

MoSHI supports a monthly seminar series that brings together researchers from a range of departments at schools within both the University of Pittsburgh and Carnegie Mellon University. The series gives investigators the opportunity to present and discuss their research ideas, findings, and experiences using mobile technology for research data collection. The institute also works with investigators on federal grant applications that use mobile sensing, trains student interns from Pitt’s School of Computing and Information in mobile sensing research, and plans to distribute pilot funding to support junior investigators to generate pilot data for extramural funding opportunities to help broaden the use of technology to improve health outcomes. More on MoSHI here.
Funding Opportunities

**UPMC Competitive Medical Research Fund**

The UPMC Competitive Medical Research Fund (CMRF) seeks new investigators across a range of biomedical and clinical sciences. The CMRF provides funds to support junior investigators in collecting preliminary data and refining hypotheses to lay the groundwork for competitive grant submissions to national sponsors. [More here.](#)

**Innovation Corps-National Innovation Network Teams Program (I-CorpsTM Teams)**

The National Science Foundation (NSF) is sponsoring entrepreneurial education, mentoring, and additional funding for researchers with current NSF funding. NSF established the I-CorpsTM Teams to promote innovation in the scientific community and facilitate translation of scientific discovery to technologies and products that benefit the public. [More here.](#)

**Targeted Basic Behavioral and Social Science and Intervention Development for HIV Prevention and Care**

The National Institute of Mental Health and the National Institute of Nursing Research seek high impact behavioral and social science research proposals that contribute to HIV risk reduction and care improvement. This announcement encourages research designed to develop HIV prevention and care interventions, translate these findings to assess intervention accessibility and feasibility, and conduct tests of the efficacy of HIV prevention and care interventions. [More here.](#)

**Tobacco Regulatory Science**

The National Institutes of Health and the U.S. Food and Drug Administration seek applications that provide scientific data to inform regulation of tobacco products. Scientific areas supported by this award include toxicity, addiction, health effects, behaviors, communications, marketing influences, and impact analysis. [More here.](#)

**NIH Fellowships**

The Department of Bioethics at the National Institutes of Health is offering two year post-doctoral and post-baccalaureate fellowships. Fellows will study ethical issues related to biomedical research, clinical practice, genetics, biotechnology, and public health. They will conduct research that typically leads to first-authored publications. [More here.](#)

Research Resources: Advisory Boards

**Community Research Advisory Board**

The University of Pittsburgh Graduate School of Public Health’s Center for Health Equity sponsors the Community Research Advisory Board (CRAB), a resource for researchers looking for stakeholder input. The board was established in 2001 and has a particular focus on helping research become more inclusive of traditionally under-represented communities, such as women, minorities, and rural populations.

CRAB provides guidance in multiple areas. Board members work with studies in all phases of the research lifecycle; they can provide assistance with study design and proposal development prior to grant submission, and also advise funded studies. They review recruitment plans and marketing materials, identify potential community partner organizations, and provide guidance on addressing historical ethical violations that have tainted the reputation of research for many minority community members.

For more information regarding presenting a research study to CRAB, please contact Lora Ann Bray at 412 624 4388 or healtheq@pitt.edu.

**Youth Research Advisory Board**

UPMC Children’s Hospital of Pittsburgh sponsors the Youth Research Advisory Board (YRAB), which consists of teens and young adults ages 15 to 26 years old. Board members provide feedback to researchers on how to effectively engage and communicate with younger participants.

YRAB is also designed to benefit board members; it affords younger people the opportunity to learn about the research process and develop leadership skills. Testimonials from members demonstrate the value of serving as stakeholders.

Research Assistant Shiva Rahman, who helps coordinate the program, explains YRAB’s mutually beneficial dynamic: “The board’s mission is to connect youths to researchers in a meaningful way. We hope that young people attending the program will be able to learn more about research and how studies are conducted. We also hope that researchers working with adolescents will be able to elevate their current studies by receiving feedback from the advisory board.” He notes that the board provides feedback on different elements of the study, such as advertising design and survey development.

YRAB welcomes new and returning researchers to their monthly meetings, and is currently setting up fall/winter meeting agendas. To sign up, contact Shiva Rahman at 412 692 8072 or rahmansa@upmc.edu.
CTSI Updates

CTSI Announces Pitt Innovation Challenge (PInCh) 2019 Winners

Every year, CTSI challenges researchers to think outside the box and bring novel ideas to PInCh, a yearly competition that awards funding to advance innovative research. The theme of this year’s challenge was “What is your bold idea to solve a health-related problem?” and as in years past, the research community’s response did not disappoint. Many cutting edge ideas to improve public health were submitted and a total of $460k was awarded to help speed translation of these ideas into clinical practice. Read about the winners below and be sure to click through to see the research teams and watch brief pitch videos describing their novel ideas to improve health.

$100,000 Award Winners

CyteSolutions Lens: Contact lenses containing an immune modifying drug to treat dry eye disease.

HIV Detective: An HIV test that returns results in one minute.

OneValve: A self-regenerating heart valve that uses the patient’s natural healing process to replace diseased heart valves.

$25,000 Award Winners

42Days: A mobile health platform to help women identify maternal mortality risk following childbirth. Provides a real-time connection to interventions and resources and provides predictive data to providers. Recipient of $5,000 bonus award focused on rural health disparities.

Aphasia Games for Health: An aphasia treatment game that can improve language outcomes and reduce social isolation.


Good Vibrations: An innovative vibration device used to treat phantom limb pain and muscle atrophy.

MobileDerm: Provides pop-up dermatology clinics in underserved vulnerable and rural communities and connects communities to care with eDermatology and teledermatology. Recipient of $5,000 bonus award focused on rural health disparities.

TeenBrainOnline: Neuroimaging to understand brain response to social media in the face of rising teen depression and suicide rates.

Regulatory Notes

ClinRegs: Tools for International Research

The National Institute of Allergies and Infectious Diseases (NIAID) developed ClinRegs, a centralized database that catalogues information regarding country specific clinical research, regulations to help investigators conducting international research. The website provides an overview of regulations in the following areas: informed consent, specimens, ethics, investigational products, sponsorship, oversight authorities, clinical trial lifecycle, and sponsorship, with links to local documents for each country. Subject matter experts keep the site updated, and ClinRegs users are also welcome to provide comments and content via an online interface.

ClinRegs also has a function that allows side by side comparison of regulations to identify instances when collaborating countries have conflicting rules that need to be reconciled. It functions as a central resource for international clinical research and was created with the aim of improving efficiency in study implementation. It is a free, open access tool for the research community. Currently, there are more than 20 countries in the ClinRegs database with plans to add more.


Due to upcoming university closures over the Thanksgiving holiday and winter recess, HRPO reminds researchers that any study due for continuing review (full board or expedited) between December 18, 2019 and January 8, 2020 must submit prior to November 22 to ensure that there is no lapse in approval.

Regulatory Offices Change Names

In September, several regulatory offices within the university changed names. The former Research Conduct and Compliance Office is now known as the Office of Research Protections, while the former Office of Research is now the Office of Sponsored Programs.
Dear CTSI,

Hello Readers! This space is reserved for your questions. If you have a research question you would like to see answered in print, please send it to cliftons@pitt.edu and look for answers in our next edition.

Dear CTSI,

What is the difference between de-identified and anonymized in data collection?

Answer: Anonymity and de-identification are both concepts related to protecting the identity of research participants, but there are important differences between the two. Anonymized means that no identifiable information is connected with study participants, and that no one, including the study team, can re-identify a participant. Identifying information includes not only names, but email addresses, phone numbers, dates of birth, social security numbers, and IP addresses. When gathering data from a small specific group - for example, a cohort of work colleagues - it is important to consider whether items like ethnicity, length of employment, or job position might be used in combination to identify a participant.

De-identified data collection does not restrict a study to only non-identifying information, but puts safeguards in place to prevent accidental discovery of participants’ personally identifying information, or discovery of other sensitive information, like clinical diagnoses. Many studies ensure de-identification by assigning a code number to each participant and labeling any research information with this code. Identifying information is stored separately and securely from sensitive information. A code-key linking identifying information and code number is accessible only to research team members, ensuring that only they can re-identify participants. Paper and pencil documents are kept in locked cabinets and electronic information is stored behind a firewall with password protection.

Researchers sometimes make the mistake of referring to data as anonymized when in fact it is de-identified. The distinction between the two is important to make in order for participants to provide true informed consent; they should not be promised anonymity when the type of data collected and the method of storage only meet the standards of de-identification.

Upcoming Events

Center for Sleep & Circadian Science (CSCS) Research Day
Presented by The University of Pittsburgh Center for Sleep and Circadian Science
Thursday, November 15, 2019 9:00 a.m. - 5:00 p.m. University Club Ballroom A
More information here.

Learn About Good Research Practices
Presented by the University of Pittsburgh Office of Research Protections
Monday, December 2, 2019, 1:00 p.m. - 3:00 p.m.
More information here.

Implicit Bias In Science
Presented by the University of Pittsburgh Clinical and Translational Science Institute (Responsible Conduct of Research Training)
Monday, December 2, 2019, 12 p.m. - 1:00 p.m.
More information here.

Questions for us? We’d love to hear from you:
https://ctsi.pitt.edu/contact-us/