

Scripps Translational Science Institute: At a Glance

Founded by Scripps Health in 2006 in collaboration with The Scripps Research Institute.

Received a \$29 million, five-year National Institutes of Health Clinical Translation Science Award in 2013.

Led by world-renowned cardiologist and geneticist Eric Topol, MD, who also is chief academic officer of Scripps Health.

Located in the heart of San Diego's Torrey Pines Mesa research hub.

Focused on using genomics and wireless health technology to advance more individualized diagnostic tools and treatments.

Partnered with the San Diego Supercomputer Center.

Received a \$3.75 million grant from the Qualcomm Foundation in 2012 to study and develop wireless biosensors, rapid pharmacogenomics diagnostic tests and mHealth apps.



Scripps researchers use wireless sensors to monitor participants in the Chopra Meditation study.

Scripps Health Digital Medicine

As the digital and biological worlds converge in ways that promise to revolutionize medicine, Scripps Health is leading the way in the testing and use of innovative technologies to create more individualized therapies and diagnostic tools for patients.

Research efforts are led by the Scripps Translational Science Institute (STSI), an innovative collaboration with The Scripps Research Institute that is focused on the interdisciplinary scientific evaluation of wireless health technology and genomics for translation to the patient bedside. The institute also serves as a training ground for young physician scientists.

On the clinical side, Scripps was one of the first U.S. health systems to test stent patients for genetic compatibility with the anti-clotting drug Plavix, and it also has deployed a "universal" medical-grade wireless architecture to accommodate many types of devices ranging from smartphones and tablets to vital signs monitors and infusion pumps.

Wireless Health

- Vscan: Scripps Clinic physicians validated the accuracy of the pocket high-resolution ultrasound device in a study that compared it to standard, expensive hospital imaging equipment. Doctors who incorporated this new stethoscope into their hospital rounds reduced the need for echocardiograms by 70 percent.
- ZIO Patch: STSI researchers found that the small adhesive wireless device, which is worn on the chest for up to two weeks, did a better job detecting abnormal and potentially dangerous heart rhythms than the Holter monitor after testing the devices on 146 patients.
- Wired for Health Study: STSI researchers are investigating whether the integrated use of wireless sensors, online social networks and conventional medicine can have a direct effect on health care spending among people with diabetes, high blood pressure or heart arrhythmias coupled with a history of generating high health care costs.
- Chopra Meditation Study: STSI researchers have teamed with The Chopra Foundation to investigate whether meditation has an immediate effect on the heart by using wireless sensors to track the real-time vital signs of meditation retreat participants.
- ViSi Mobile: Scripps clinicians are evaluating the use of this wireless wrist device to track the real-time vital signs of patients recovering from surgery in a series of hospital pilot studies.

Genomics

- Welllderly Study: STSI researchers are studying the genetic sequences of more than 2,000 healthy individuals aged 85 or older in search of DNA mutations that protect them from heart disease, cancers, diabetes, dementias and other conditions common among the elderly.
- IDIOM Study: STSI researchers are sequencing the DNA of patients with mysterious medical conditions that have defied identification through conventional methods. They hope to discover rare genetic mutations that could lead to a diagnosis and treatment.
- Scripps Genomics Health Initiative: After studying how consumers reacted to results of a comprehensive personal genomics test, STSI researchers found that 90 percent of the participants did not experience anxiety or other forms of distress related to the screening.



Founded in 1924 by philanthropist Ellen Browning Scripps, Scripps Health is a nonprofit integrated health system based in San Diego, Calif. Scripps treats a half-million patients annually through the dedication of 2,600 affiliated physicians and 13,750 employees among its five acute-care hospital campuses, hospice and home health care services, and an ambulatory care network of physician offices and 25 outpatient centers and clinics.



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