# Mount Sinai and Cactus Design Studio Launch Lab100 to Redesign Healthcare

Lab100 leverages data science, cutting edge technology and customized architecture to redesign the way health is measured and healthcare is delivered.

New York, NY — May 30, 2018 — Cactus, the Brooklyn-based design studio, has partnered with the Mount Sinai Institute for Next Generation Healthcare to launch Lab100, a hybrid medical clinic and research lab combining innovations in digital design, architecture, and technology to take comprehensive healthcare to a new level.

Inspired by a human centric design approach, Cactus built Lab100 to give patients a real-time experience of the clinical future. Through a single 90 minute clinical visit, patients undergo a full clinical assessment with a nuanced collection of digital tests and experiences that catalog the body's peak capacity and offer real time results and feedback. A custom-designed app collects a preliminary health history, which is integrated with the generated data and later reviewed in person with a doctor on a large multimedia panel.

"Lab100 provides a glimpse into a future where AI and machine learning will work hand-in-hand with doctors and healthcare professionals to drive medical progress.," said Noah Waxman, Cactus co-founder. "Patients at Lab100 will experience a more dynamic and more personal experience than the opaque, rushed and jargon-filled doctor's visits that are currently the norm."

This personalized and data-centric approach to a standard medical check-up is intended to marry conventional healthcare diagnostics with cutting-edge technology. To create Lab100, Cactus built software that integrated a wide range of data from a battery of the latest medical devices selected by Mount Sinai doctors. To make sense of this massive quantity of data, Cactus then created a software suite to contextualize and visualize the data in meaningful ways using a combination of graphic design, statistics and animation.

Each of a variety of assessments features a custom interactive environment. This means that along with the familiar clinical equipment, patients will interact with virtual reality, touch screens, 'gamified' tests, live video comparisons, body/gesture tracking, and other cutting-edge interfaces. At the station measuring a patient's balance, an array of depth-sensing cameras is used to capture subtle changes in body movement and orientation. At the station measuring dexterity there is an embedded system within the table that uses capacitive sensors to time the beginning and end of the test with extreme precision. And live video is streamed over the network, processed, and made available for instant comparison of the patient's performance.

"Lab100 aims to quantify what it means to be healthy, so that we can do a better job of optimizing health and quality of life," said Dr. David Stark, director of Lab100. "The first step to quantifying health is collecting high-quality patient data, and the current healthcare system is not set up to do that – it's designed to diagnose and treat disease. With Lab100, we've built a new system to collect

and examine patient data, with the goal of empowering both patients and their physicians to improve health, not just treat disease."

After this initial beta phase and over the course of 2018, Lab100 will accept 2000+ paying patients to benefit from visiting the Lab while anonymously contributing their data to an ever-expanding research database. The meeting place of top medicine, design, and technological advance, Lab100 unites information systems to leverage the future of optimal health.

#### **About Lab 100**

Lab100 at Mount Sinai is a hybrid clinic and research lab leveraging data and technology to redesign the way health is measured and healthcare is delivered. Lab100 empowers patients to track their health over time by providing the most comprehensive health assessment currently available. As a research center, Lab100 equips scientists with longitudinal multi-scale health data and a testbed environment to develop, validate and deploy new products and services. By closing the feedback loop between discovery science and care delivery, Lab100 creates a virtuous cycle of innovation that radically accelerates the pace at which promising ideas become clinical practice. www.lab100.org

#### **About Cactus**

Cactus is an experiential design studio that creates work at the intersection of physical architecture and digital technology. The studio works for visionary clients across a range of industries including media, fitness, medicine, entertainment, automotive and financial services. Client work is united by one objective – to imagine, design and build what's next. www.cactus.is

## About Mt. Sinai Medical Center.

The Mount Sinai Health System is New York City's largest integrated delivery system encompassing seven hospital campuses, a leading medical school, and a vast network of ambulatory practices throughout the greater New York region. Mount Sinai's vision is to produce the safest care, the highest quality, the highest satisfaction, the best access and the best value of any health system in the nation. The System includes approximately 7,100 primary and specialty care physicians; 10 joint-venture ambulatory surgery centers; more than 140 ambulatory practices.

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