

## Samsung Announces Open Innovation Initiative To Build Digital Health Ecosystem



Samsung is exploring a new approach to health and wellness technologies with the MIT Media Lab, Brigham & Women's Hospital, Tulane University School of Medicine and Samsung Medical Center

Samsung Electronics today announced a new Open Innovation Initiative at the Samsung Developer Conference 2023 (SDC23) in San Francisco. Collaborating with the MIT(Massachusetts Institute of Technology) Media Lab, Brigham & Women's Hospital, Tulane University School of Medicine and Samsung Medical Center, the new research program will explore enhancements to the digital health ecosystem and new approaches to wellness. With the research findings from these collaborations, Samsung will strive to develop its technology further to support the healthcare industry, expand understanding of individuals' minds and bodies and unlock the full wellness potential of personal devices.

"Around the world, innovation and transformational health research are being fostered by leading institutions in collaboration with Samsung," said Hon Pak, Vice President and Head of the Digital Health Team, MX Business at Samsung Electronics. "In addition to our own deep investments in health research, we are sourcing exemplary, talented industry leaders to collaborate with. We are excited to be working with prestigious institutions to explore new health technologies and novel perspectives on wellness."

#### Discovering Deeper Sleep With the MIT Media Lab

In collaboration with the MIT Media Lab, Samsung aims to explore new digital profiles for monitoring and improving sleep.

"There's an ever-growing understanding of how poor sleep negatively impacts both individuals and society at large. Wearable sleep tracking solutions may provide many potential offerings to improve our sleep in the future," said the MIT Media Lab Professor Pattie Maes, who is also a principal investigator on the collaboration. "We want to go beyond what is currently possible — to investigate more unique sleep profiles, to better personalize sleep interventions for users, and to explore better models for sleep regularity, homeostasis and circadian rhythm."

## Quantifying Resilience and Frailty With Brigham & Women's Hospital

By examining Galaxy Watch biometric data, Samsung will work with Brigham & Women's Hospital to explore how clarifying the twin concepts of resilience and frailty can build more effective, personalized pictures of individuals' health.

"Through our work with Samsung, we are exploring how to put concepts like resilience and frailty into quantifiable terms and investigate how seemingly disparate physiologic systems affect each other," said Dr. Bruce Levy, Interim Chair, Department of Medicine and Chief, Division of Pulmonary and Critical Care Medicine at Brigham & Women's Hospital. "We aim to give people actionable insights to maximize their resilience from a stressor, leveraging wearable sensors technology, which offers a unique opportunity to map individual trajectories of recovery or deterioration."

# Confronting Cardiovascular Disease With Tulane University School of Medicine

In partnership with Tulane University School of Medicine, Samsung will utilize the Galaxy Watch's BioActive sensor to monitor a range of

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cardiovascular disease indicators.

"Cardiovascular disease is the leading cause of death worldwide," said Dr. Nassir Marrouche, principal investigator of the study and Director of the Tulane Research Innovation for Arrhythmia Discovery at Tulane University School of Medicine. "By combining our extensive expertise in cardiovascular disease, Samsung's BioActive sensor technology and data-driven machine learning approaches, we aim to unlock a significant, latent body of data to help better predict who's at risk for hospitalization, get them treatment faster and ultimately improve health outcomes."



#### New, Multi-Domain Approaches With the Samsung Medical Center

Working closely with the Samsung Medical Center, Samsung is researching multi-domain healthcare with the aim of developing an integrated analysis data platform and advanced algorithms for abnormal symptom notification.

"This new collaboration will study new methods and systems spanning heart health, sleep and mindfulness utilizing personalized dashboards and dynamic, multi-domain platforms," said Seung Woo Park, President and CEO, Samsung Medical Center. "Leveraging both Samsung's comprehensive services and wide operational capacity and Samsung Medical Center's expertise and clinical research facilities, the partnership aims to develop an algorithm and build a platform to better monitor and give insights on users' heart health, sleep, mental health and more."



Through these efforts, Samsung hopes to discover new possibilities for wearables in digital health and deliver diverse and enhanced health services for users and beyond. Samsung will present more details about the Open Innovation Initiative, its expansive health and wellbeing ecosystem and more as part of SDC23.

Source: Samsung Medical Center

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