

EMBARGOED UNTIL 27 SEPTEMBER 2024

Empowering Aging Communities: Three Start-ups awarded \$1.5million to Test-bed Innovative Healthcare Solutions for a Resilient Ageing Society

27 SEPTEMBER 2024, SINGAPORE – Strengthening care for a healthier and resilient aging society in Singapore gets a boost as 3 start-ups emerge as winners at this year’s annual global innovation challenge, CHISEL Healthcare InnoMatch 2024. Partnering the country’s public healthcare clusters, the 3 start-ups have come up tops from the search that saw participation of 330 startups/SMEs from across 55 countries. The winners are set to test-bed their innovative solutions to enhance the holistic care of Singapore’s seniors.

As an initiative of the CHI Start-up Enterprise Link (CHISEL), Healthcare InnoMatch aims to drive adoption of healthcare innovation at speed and at scale, with the support of Temasek Foundation, and in partnership with Singapore’s three public healthcare clusters: National Healthcare Group (NHG), National University Health System (NUHS), and SingHealth. The global challenge seeks to galvanise collaboration and innovation across sectors, fostering an environment where transformative ideas can flourish.

This year’s theme “ Strengthening care for a healthier and resilient aging society”, gives participants the opportunity to contribute to a future where the elderly can thrive in a supportive and responsive healthcare ecosystem. The goal is to catalyse the adoption and scaling of sustainable innovations that meet the unique needs of this demographic.

The winners were awarded a total of S\$1.5 million to begin test-bedding their innovations at a public healthcare cluster that they have been paired with, paving the opportunity for market growth in Singapore and beyond.

The winners are (in alphabetical order):

- CAPTUREPROOF
- SG Diagnostics
- ViewMind

The synopses of their winning proposals are in **Annexe A**.

In the Final Pitching Event attended by an audience of over 300 innovators online and in-person, the finalists faced the challenging task of pitching their solutions to the panel of judges from Ministry of Health, Temasek Foundation, Agency for Integrated Care, Synapse, and a representative from each of the public healthcare cluster - National Healthcare Group, National University Health System and SingHealth.

“Through CHISEL, we can access and deploy innovations from start-ups across the world that can help us close the gap between our health span and lifespan. Singaporeans are now living longest in the world at 85.7 years of life expectancy according to the Global Burden of Disease Survey 2021, but we spend 10 years in poor health and disabilities. We can see how technologies and new innovative care models can help us not just add years to life but life to the years added.”

– Prof Eugene Fidelis Soh, Deputy Group CEO, Population Health NHG & Executive Director of the Centre for Healthcare Innovation (CHI), which is part of NHG.

“Integration of new innovations into the healthcare system is a complex undertaking that requires significant resources but can greatly benefit the population by advancing care delivery and improving health outcomes. Temasek Foundation is heartened to help catalyse this process through the CHISEL Healthcare InnoMatch platform.”

– Dr Lee Fook Kay, Head, Pandemic Preparedness, Temasek Foundation

“This is my first time judging the CHISEL Healthcare InnoMatch, and I’ve been truly impressed by the innovative solutions presented. One area that stood out to me was the focus on fall risk prevention. While many existing solutions concentrate on detection, the platform showcased several groundbreaking approaches to proactively address this critical issue. It’s exciting to see such a diverse range of talent and innovation being introduced to Singapore’s healthcare ecosystem. I believe that continued efforts to encourage and promote these initiatives will be instrumental in driving advancements in healthcare technology and improving patient outcomes.”

- Mr. Edwin Chew, Chief Digital Strategy Officer, Agency for Integrated Care

-END OF PRESS RELEASE-

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About Centre for Healthcare Innovation

Hosted by the National Healthcare Group, the Centre for Healthcare Innovation (CHI) drives health and care transformation to add years of healthy life to the communities we serve. This transformation is powered by our understanding of the innovation cycle - beginning with care redesign, augmented by effective technology adoption, and ultimately engendering job redesign for our future workforce. CHI aims to transform health by delivering greater value at the care level; enabling health and social change for population health at the systems level; and empowering sustainable healthcare at the ecosystem level.

For more information, visit us at: www.chi.sg

About CHI Start-up Enterprise Link (CHISEL)

Centre for Healthcare Innovation Start-Up Enterprise Link (CHISEL) is a programme that aims to accelerate the adoption of market-ready healthcare innovations that are fit for mainstream use, at speed at scale.

It provides a sandbox and marketplace that enables start-ups and small and medium enterprises (SMEs) to access real use cases and environments and demonstrate proof-of-value (POV) of market ready or near market-ready solutions, with one of the three Singapore healthcare clusters as a primary collaborative test-bed site. The eventual aim is to bridge the gap between market-ready solutions and adoption, with the aim of procurement for use by healthcare institutions.

Simultaneously, healthcare clusters are able to evaluate the operational feasibility of solutions prior to adoption or scale-up. The platform aims to bridge the market adoption gap, and allow patients early access to new and emerging healthcare innovations to meet healthcare gaps.

Annex 1: Project Descriptions

Company: CaptureProof, INC

Project Name: BalanceScan

Partnering Healthcare Cluster: National University Health System (NUHS)

BalanceScan, powered by CaptureProof, revolutionizes fall risk assessment by utilizing AI-driven video analysis to evaluate mobility and balance with clinical precision. Through simple smartphone or tablet recordings, BalanceScan conducts Sit to Stand or Timed Up and Go (TUG) tests and other critical assessments to measure gait, listing angles, and functional movements in real-time. By capturing and analyzing subtle changes in a patient's movements, BalanceScan provides actionable insights that allow healthcare professionals to intervene early, reducing fall risks and improving patient outcomes.

With proven accuracy in identifying fall risks—validated in clinical studies—BalanceScan offers a practical, scalable solution for fall prevention in elderly populations. The platform integrates seamlessly into clinical workflows, enabling both in-office and remote assessments, making it a powerful tool for continuous patient monitoring. Beyond fall risk, BalanceScan's technology can be applied across various medical disciplines, offering a horizontal application that extends from emergency departments to specialty care settings.

BalanceScan not only enhances patient safety but also reduces healthcare costs associated with falls, potentially saving millions in hospital admissions. With its commitment to innovation and improving quality of care, BalanceScan aligns perfectly with initiatives aimed at supporting active aging and community-based healthcare.

Company: IRegained Inc.

Project Name: MyHand System

IRegained has developed the MyHand System, a proprietary targeted hand function rehabilitation system which aims to restore lost hand function in individuals who have sustained a stroke or brain trauma or trauma to the hand from other neuromuscular or musculo-skeletal injuries/disorders. It leverages neuroplasticity, the human brain's ability to 'reprogram' its neural pathways and thereby restore lost hand function.

The MyHand® System is an FDA, Health Canada and HSA (Singapore) registered, patented, targeted hand-function rehabilitation system, consisting of a connected mechatronic device, cloud-based proprietary hand-function training protocols, specifically designed therapeutic games that encourage a patient's active engagement in their therapy. Therapy can be delivered by the mechatronic device both in-person in the clinic, as well as through remote virtual rehabilitation.

IReganed's MyHand® System can be used in rehab centers, recreation clubs and through remote tele-rehabilitation guidance from rehabilitation professionals. Our novel system engages a patient's sensory system (touch, pressure, and proprioception sensation) and motor capabilities (various hand and forearm muscles) for a more comprehensive rehabilitation approach to help restore hand function.

Company: Lexena Medical
Project Name: LenexaCARE

LenexaCARE utilises fabric-based sensors and AI-driven image recognition to convert a traditional medical mattress into a smart patient monitoring system. Data captured discreetly through LenexaCARE enables precise, continuous tracking of patient positions and pressure areas, providing clinicians and carers with actionable data to finally allow for proactive and accountable pressure injury prevention.

The solution incorporated into the mattress cover means residents and patients can be monitored in comfort and with dignity without the impracticalities of wearables and the discomfort caused by cameras.

Future applications will enable the system to become a complete patient and resident monitoring suite including sleep monitoring, falls risk reduction, vitals monitoring and more features that will be included as software updates.

Company: Occutrack Medical Solutions Pte Ltd
Project Name: CRYSTALSIGHT

Occutrack is a medical startup developing an eye movement tracking AI 'CRYSTALSIGHT' for home use to monitor and manage visual deterioration. The focus is on age-related macular degeneration (AMD) using advanced eye-tracking AI.

Occutrack's CRYSTALSIGHT gaze interrogation algorithm tracks eye movements in response to visual stimuli, analyzes the data for abnormalities, and assesses visual performance. This non-invasive process helps detect and monitor conditions like AMD, allowing for convenient home-based eye health management. Normal human vision consists of a series of quick eye movements called saccades. These rapid eye movements have ballistic behaviour and abruptly change the fixation point depending on the area of the person's eye.

By tracking these optokinetic movements with displayed patterns on the screen, the health of one's eyes can be determined.

Company: Roceso Technologies Private Limited
Project Name: EsoGLOVETM

Roceso Technologies' flagship product, the EsoGLOVETM, is one of the world's lightest hand rehabilitation and exoskeleton devices offering top functionality and comfort. On top of EsoGLOVE, Roceso also developed CygniSENSE Motion, a motion tracking technology-based solution for upper limb assessment, exercises and gamification.

To achieve telerehab and community care, Roceso launched CygniCONNECT Platform which integrates Roceso's robotic, biosensing and digital health solutions and enables remote prescription and high-intensity therapy at community and home.

Company: SG Diagnostics

Project Name: PreciS Health Management System

Partnering Healthcare Cluster: National Healthcare Group (NHG)

The PreciS Health Management System is designed to enhance the chronic diseases management in Singapore and beyond, particularly for high-risk elderly individuals who may not regularly access healthcare services. By raising public health awareness and improving aging-related chronic disease management, we aim to benefit both the public health and individuals.

In partnership with SGO, they will introduce a door-to-door health screening initiative, involving visiting homes to perform point-of-care tests for key health parameters such as HbA1c, a full lipid profile, and blood pressure, utilizing our handheld analyzers. Powered by the HbA1c handheld solution, co-developed by SG Diagnostics and the National Healthcare Group, the screening process is streamlined and efficient. All data will be securely stored in the cloud and, ideally, shared in real-time with healthcare providers to facilitate immediate follow-up and care.

Beyond health screenings, they will use this opportunity to educate individuals on chronic disease management, including key programs such as Healthier SG, the War on Diabetes initiative, and practical diabetes management tips. Their solution aims to advance early detection and awareness of chronic diseases, enhance public health efforts, and support timely intervention and better health management within the community.

Company: Mediktor

Project Name: Mediktor

Mediktor is powered by a sophisticated Natural Language Processing AI engine that enables users to converse naturally in 18 languages, the white-labeled SaaS is omnichannel and can be easily embedded into any interface, a solution adaptable to multiple business needs.

Its AI assists patients and guides them through a series of questions to get a list of personalised recommendations and possible diagnoses. Thanks to its Machine Learning, it offers a highly personalized experience to users, leveraging this technology to extract key information and learn from all input users explain during symptom evaluations. NLP technology allows users to express themselves using their words, even if misspelt, conversing naturally with the chatbot. Mediktor helps Hospitals and Health Systems leading patients efficiently and safely to the most appropriate healthcare service.

For healthcare professionals, Mediktor Plus offers support during triage, accelerating patient assessment and reducing waiting times. Doctors can also save time by leveraging triage information for discharge reports.

As the first AI-based emergency triage tool, Mediktor helps alleviate the burden on emergency departments. Its integration with Hospital Information Systems streamlines treatments and protocols.

Company: ViewMind Inc.

Project Name: ViewMind

Partnering Healthcare Cluster: SingHealth

ViewMind is transforming the landscape of brain health with its First-In-Class technology that merges eye movement analysis with advanced machine learning. Our platform offers highly accurate, non-invasive cognitive assessments by detecting fine-grain changes in cognition through the eyes. This innovative approach allows for early diagnosis, prevention, and continuous monitoring of brain conditions.

What sets ViewMind apart is its ability to provide objective and scalable assessments that are culturally neutral, making them accessible across diverse populations. Unlike traditional methods, which can be invasive, costly, and dependent on the evaluator's expertise, ViewMind's 20-minute evaluations are easy to administer, and do not require specialized training.

Our technology is designed for early detection and for the monitoring of disease progression and treatment impact. By enabling healthcare providers to make data-driven decisions, ViewMind enhances patient outcomes and reduces healthcare costs. With its scalable and efficient approach, ViewMind is poised to become a key tool in the fight against brain health disorders, driving innovation in cognitive assessment and care.