



MEDIA RELEASE

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AI and Digital healthcare solutions sweep awards at Medical Grand Challenge 2024

Medical Grand Challenge 2024 returns with the largest number of participating teams since 2017 with first-time participants from China and Thailand

17 August 2024, Singapore – A machine learning software that allows nurses to efficiently and remotely monitor outpatient stoma cases while providing personalised care advice, and a digital intervention where women can find personalised, comprehensive and accessible mental health care won first place in the Nascent and Open categories respectively at the Medical Grand Challenge Finale 2024, held earlier today.

Team CERVIVAI was awarded the Social Responsibility Award for their project that integrates Visual Inspection with Acetic Acid (VIA) testing and Artificial Intelligence into one system, to enhance cervical cancer screening accuracy and accessibility for women living in low-resource areas. For their patented technology that prevents bacterial buildup in hospital sink traps, Team Bioshield bagged the Long-Term Sustainability Award. Garnering the highest number of votes in the voting portal during the Finale, the WiZards received the People's Choice Award for their one-stop software solution that streamlines occupational health hazard management by focusing on three components: hazard detection, hazard reporting and human resources management. These three teams walked away with \$4,000 each for their efforts.

The Medical Grand Challenge (MGC) 2024 has received a bumper crop of submissions this year, as it plays host to 40 teams from around the world. MGC 2024 welcomed nine teams from China, and four teams from Thailand. The competition is also keener, with teams upping the ante from projects devising extremely advanced prototypes from scratch, such as an imaging tool that gives accurate assessments of corneal and limbal blood vessels, a 3-in-2 device strategy to measure intracranial pressure, a microneedle blood tester to identify sexually-transmitted diseases in the blood, to an injectable thermosensitive fibroin microspheres hydrogel to treat osteoporosis.

Organised by the Centre for Medical Education (CenMED) at the Yong Loo Lin School of Medicine, National University of Singapore (NUS Medicine), the MGC provides a challenge for medical students and their counterparts from other faculties and universities to put their problem-solving and creative abilities to the test by devising practical healthcare solutions to benefit the communities.

This year's MGC Finale saw 14 local teams, nine from China, six from Indonesia and four from Thailand competing in the Nascent Category. Seven other teams, including one from Malaysia vied for top place in the Open Category. An event highlight was a Bench-to-Bedside project demonstration by Team C-Blu from the University of Utah, USA, which demonstrated how their innovation won the grand prize at the Bench to Bedside (B2B) competition, a premier healthcare innovation competition organised by University of Utah Health.

All participating teams presented their novel innovations at a one-and-a-half-hour closed-door judging session in the morning. Eventually, 16 teams were shortlisted from each of the Nascent and Open category and invited to do a stage pitching before the other competitors and a panel of 17 judges, all highly-experienced commercial leaders from various sectors such as business, healthcare, engineering and research. Each shortlisted team was given three minutes to deliver a convincing pitch, and they had to field questions from the judging panel about the viability and sustainability of their product. The Finale marks the culmination of a year-long challenge where shortlisted teams present their projects to a panel of judges, many of whom are influential business leaders in commercial healthcare and design strategy.

Teams in the Nascent category could explore devising an innovative solution from scratch, while teams in the Open category can choose to conceptualise improvements to enhance the viability and workability of an existing project idea that has been presented previously in other competitions, or work on projects collaboratively with "Tech Mentors", who are influential and experienced industry experts. Projects are assessed on their business strategy, creativity, design quality and healthcare impact. Throughout the year, the teams attended interdisciplinary boot camps and participated in consultation sessions with their tech mentors who provided guidance and advised them on how best to improve their creations and build on its commercial viability.

Professor Chong Yap Seng, Dean of NUS Medicine, emphasised the need for students to gain exposure to solving real-world problems, and broadening their understanding of the complexities of working with collaborators in other disciplines to arrive at feasible solutions. "Modern-day problems vary in complexity and require a multi-disciplinary approach for a viable solution. Healthcare challenges in one country can create a ripple effect in other parts of the world. It is useful for students of today, regardless of where they come from, to recognise the common connections within the global healthcare and medical landscape and be comfortable with initiating collaborative efforts with international counterparts to develop solutions for a common problem. The MGC aims to serve as a platform to instil courage and creativity in driving inter-disciplinary collaborations forward and into the future."

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About the NUS Yong Loo Lin School of Medicine (NUS Medicine)

The NUS Yong Loo Lin School of Medicine is Singapore's first and largest medical school. Our enduring mission centres on nurturing highly competent, values-driven and inspired healthcare professionals to transform the practice of medicine and improve health around the world. Through a dynamic and future-oriented five-year curriculum that is inter-disciplinary and interprofessional in nature, our students undergo a holistic learning experience that exposes them to multiple facets of healthcare and prepares them to become visionary leaders and compassionate doctors and nurses of tomorrow.

Since the School's founding in 1905, more than 12,000 graduates have passed through our doors. In our pursuit of health for all, our strategic research programmes focus on innovative, cutting-edge biomedical research with collaborators around the world to deliver high impact solutions to benefit human lives. The School is the oldest institution of higher learning in the National University of Singapore and a founding institutional member of the National University Health System. It is one of the leading medical schools in Asia and ranks among the best in the world (Times Higher Education World University Rankings 2024 by subject and the Quacquarelli Symonds (QS) World University Rankings by subject 2024).

For more information about NUS Medicine, please visit <https://medicine.nus.edu.sg/>.

About National University of Singapore (NUS)

The National University of Singapore (NUS) is Singapore's flagship university, which offers a global approach to education, research and entrepreneurship, with a focus on Asian perspectives and expertise. We have 16 colleges, faculties and schools across three campuses in Singapore, with more than 40,000 students from 100 countries enriching our vibrant and diverse campus community. We have also established more than 20 NUS Overseas Colleges entrepreneurial hubs around the world.

Our multidisciplinary and real-world approach to education, research and entrepreneurship enables us to work closely with industry, governments and academia to address crucial and complex issues relevant to Asia and the world. Researchers in our faculties, research centres of excellence, corporate labs and more than 30 university-level research institutes focus on themes that include energy; environmental and urban sustainability; treatment and prevention of diseases; active ageing; advanced materials; risk management and resilience of financial systems; Asian studies; and Smart Nation capabilities such as artificial intelligence, data science, operations research and cybersecurity.

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