

Contact Information:

Caitlin Kizielewicz

412-554-0074 | [ckiz@andrew.cmu.edu](mailto:ckiz@andrew.cmu.edu)

Wesley Michael Lewis

+65 6601-7317 | [wmlewis@nus.edu.sg](mailto:wmlewis@nus.edu.sg)

Sally Toh

+65 8100-4781 | [sally.toh@nus.edu.sg](mailto:sally.toh@nus.edu.sg)

**Heinz College Announces Collaboration with the National University of Singapore and FriendsLearn to Promote Research & Development Activities on Digital Therapeutics**

*Work Will Involve the Digital Vaccine Project Using AI in Precision Disease Prevention*

The Heinz College of Information Systems and Public Policy will work with the National University of Singapore (NUS) Yong Loo Lin School of Medicine (NUS Medicine) and School of Computing (NUS Computing), and with the firm FriendsLearn, to promote joint research and development activities of mutual interest. The research will use artificial intelligence (AI) in precision prevention of disease via innovative digital therapeutic solutions such as digital vaccines.

“Research thrives on collaboration. We’re proud to join forces in this partnership, combining our faculty strengths in artificial intelligence and health care to drive purposeful, precise innovation alongside leading researchers,” explains Ramayya Krishnan, dean of Heinz College. “This undertaking will strengthen our work across disciplines, countries, and enterprises.”

Professor Chong Yap Seng, Lien Ying Chow Professor in Medicine, Dean of NUS Medicine added, “At NUS Medicine, we are focused on driving a transformative shift from healthcare to health through boldly progressive education and research, powered by technology. Digital technology, data analytics, and artificial intelligence hold immense potential to revolutionise health. Through this collaboration, we will be able to accelerate intelligent application of big data, AI, and modern technologies that can improve health outcomes across generations and bring us closer to achieving health equity.”

One of the primary areas of work will be identifying opportunities for exchanges, cooperation, and joint research and development in relation to the [Digital Vaccine Project](#). The project entails the context-sensitive design and extensive field evaluation in school settings of an AI-powered, gamified digital therapy solution on mobile devices for trustworthiness, health literacy, and health outcomes related to healthy lifestyles and precision prevention of disease in children. Digital vaccines use neurocognitive training, implicit learning, and immersive gaming in regular “doses” to encourage healthier behaviors in children, safely and effectively priming

neurodevelopment and gut biome health. This induces and reinforces changes at the neuro-physiological level underlying behaviors and choices during the critical habit-forming stage of childhood.

This effort is led by Rema Padman, Trustees Professor of Management Science and Healthcare Informatics in the Heinz College, with collaborators Professor Rahul Ladhania at the University of Michigan School of Public Health, Assistant Professor Ai Peng Tan at NUS Medicine and Associate Professor Sharon Tan at NUS School of Computing. “We are really motivated by the opportunity to address a public health challenge worldwide of health promotion for disease prevention early in life so that children learn about healthy lifestyles in a fun and exciting way”, says Padman.

"This collaboration exemplifies the power of cross-disciplinary partnerships, uniting the expertise of academic institutions and innovative companies to push the boundaries of what is possible. By integrating Health IT, including AI, digital technology and health interventions like digital vaccines, we are not only reshaping the future of healthcare but also fostering a deeper, shared understanding of how we can create long-term, sustainable improvements in health outcomes," said Professor Tan Kian Lee, Tan Sri Runme Shaw Senior Professor and Dean, NUS School of Computing.

FriendsLearn, a biological and health technology company with offices in San Francisco and Chennai, India, is a pioneer of digital vaccines and a transnational partner with Carnegie Mellon of the Digital Vaccine Project.

"It is a pioneering step for Governments of advanced countries and the world's leading academic institutions that choose to collaborate across disciplines by utilizing AI to solve real problems. This trend in shifting conviction to invest based on the enormous economic and societal value for a nation, signals a significant inflection point shift for the health of the future of humanity", said Bhargav Sri Prakash, founder and CEO of FriendsLearn.

The project will also involve exchanging scientific, academic, technical, and related information of mutual interest, for which each party holds intellectual property rights, and identifying opportunities for commercializing them. In addition, the universities and FriendsLearn will organize and take part in joint academic and scientific activities such as seminars and conferences.

###

#### **About Heinz College of Information Systems and Public Policy**

The Heinz College of Information Systems and Public Policy is home to two internationally recognized graduate-level institutions at Carnegie Mellon University: the School of Information Systems and Management and the School of Public Policy and Management. This unique colocation combined with its expertise in analytics set Heinz College apart in the areas of cybersecurity, health care, the future of work, smart cities, and arts & entertainment. In 2016, INFORMS named Heinz College the [#1 academic program](#) for Analytics Education. For more information, please visit [www.heinz.cmu.edu](http://www.heinz.cmu.edu).

#### **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. NUS has 16 colleges, faculties, and schools across three campuses in Singapore, with more than 40,000 students from 100 countries enriching its vibrant and diverse campus community. NUS has also established more than 20 NUS Overseas Colleges entrepreneurial hubs around the world.

NUS's multidisciplinary and real-world approach to education, research and entrepreneurship enables it to work closely with industry, governments, and academia to address crucial and complex issues relevant to Asia and the world. Researchers in its 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.

For more information on NUS, please visit <http://www.nus.edu.sg/>

### **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. Its 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 inter-professional in nature, NUS Medicine 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 its doors.

In pursuit of health for all, NUS Medicine's 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 2025 by subject and the Quacquarelli Symonds (QS) World University Rankings by subject 2025).

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

### **About NUS Computing**

NUS Computing is a global leader in computing education, renowned for its world-class faculty and a comprehensive range of degree programmes, including Artificial Intelligence, Business Analytics, Business Artificial Intelligence Systems, Computer Engineering, Computer Science, and Information Security. The School of Computing attracts top-tier students and produces highly sought-after graduates who excel across industries. NUS Computing fosters leadership, entrepreneurship, and innovation through mentorship, community initiatives, and programmes like The Furnace, a start-up incubator that helps students bring their ideas to market.

In research, NUS Computing has built a strong reputation in areas such as databases, multimedia, and digital business, while strategically expanding in cutting-edge fields like cybersecurity and artificial intelligence. This commitment to research excellence positions NUS Computing as a key driver of digital transformation, shaping the future of technology and its applications across various sectors.

For more information about NUS Computing, please visit <https://www.comp.nus.edu.sg/>