

## AstraZeneca-Singapore establish strategic partnerships

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**To step up use of AI, big data and precision medicine to help people with chronic diseases such as diabetes, heart disease and cancer**



AstraZeneca, on 13 Feb 2019, announced that it is entering into strategic partnerships with three leading healthcare innovators and organisations in Singapore, using artificial intelligence (AI), big data and genomics to step up the development of life-changing biomedical science. AstraZeneca signed these partnerships with homegrown AI start-up eko.ai, the SingHealth Duke-NUS Academic Medical Centre (AMC) and the Agency for Science, Technology and Research (A\*STAR) in the presence of Singapore's Minister for Trade and Industry, Mr. Chan Chun Sing, Swedish Ambassador to Singapore, H.E. Mr. Niclas Kvarnström, and H.E. Mrs. Kara Owen, British High Commissioner to Singapore.

Building on government initiatives such as the National AI Strategy, a key step in Singapore's Smart Nation journey, and the Healthcare Industry Transformation Map, AstraZeneca and its partners aim to speed up the deployment of digital healthcare technology, accelerate scientific talent and skills development, and advance Singapore's position as a global hub for cutting-edge health science innovation.

H.E. Mr. Niclas Kvarnström, Swedish Ambassador to Singapore, said, "In Sweden we have a long tradition of close collaboration between government, academia and industry for innovation that delivers tangible benefits where it matters most: to people's lives. I am proud that AstraZeneca, which has been a cornerstone of Swedish healthcare innovation for decades, and its Singapore partners bring this vision into practice by applying their world-class expertise to improve the lives of people."

H.E. Mrs. Kara Owen, British High Commissioner to Singapore, said, “The UK has a world-class health and life sciences ecosystem that puts it at the forefront of digital health and medical technology breakthroughs. Our strong public-private ethos continues to drive the next generation of life-changing treatments, cutting-edge technologies and customer-first services – not just in the UK but worldwide. This collaboration between British-Swedish AstraZeneca, eko.ai, the SingHealth Duke-NUS Academic Medical Centre (AMC) and A\*STAR is one brilliant example of the many forward-looking and innovative collaborations between the UK and Singapore.”

Ms. Jo Feng, Senior Vice President Asia Area, AstraZeneca, said, “Good health is essential to personal development and economic prosperity. We are extremely encouraged by the bold vision from the Singapore government to build a Smart Nation and use cutting-edge technology to help people live healthier, happier lives. We are excited to partner with Singapore’s best healthcare innovators and contribute our scientific and bioinformatics capabilities to the Singaporean biomedical ecosystem, which we now consider an important player in our growing global network of health innovation hubs.”

### **Achieving better health through innovation**

The key objective of these collaborations is to help Singaporeans enjoy good health and quality healthcare, by using technology to identify risk factors for disease prevention, enable earlier diagnosis, and to improve the treatment and management of chronic diseases such as diabetes, heart disease and cancer.

With eko.ai, AstraZeneca will work to accelerate the development and deployment of AI-technology that speeds up the diagnosis of heart disease. eko.ai is a start-up supported by A\*STAR A\*ccelerate that automates the analysis of echocardiograms to make diagnosis faster and more accessible to patients. This can help the 600,000 Singaporeans living with diabetes, for whom heart disease is the most frequent and fatal complication. Heart failure is one of the leading causes of hospitalization.

Mr. James Hare, Co-founder and CEO, eko.ai, said, “We look forward to partnering with AstraZeneca to continue developing our technology and applying it to real-world, patient settings, while learning from AstraZeneca’s global expertise and existing relationships across the continuum for heart failure management from prevention to treatment.”

With A\*STAR, AstraZeneca will work to advance Singapore’s research capabilities in genomics and precision medicine. Combining AstraZeneca’s bioinformatics and genomics expertise with Asia’s largest genetic databank — spearheaded by the A\*STAR Genome Institute of Singapore — this partnership will help develop a better understanding of Asian genomics to inform potential new disease prevention strategies and drug targets to treat ailments of a particular burden to the Asian population.

With the SingHealth Duke-NUS AMC, AstraZeneca will be exploring collaboration on the acceleration of open innovation, real-world evidence generation, and development of new health technologies to enhance patient-centric care and improve care outcomes.

Professor Thomas Coffman, Dean of Duke-NUS Medical School, said, “The SingHealth Duke-NUS AMC draws on the collective strengths of SingHealth and Duke-NUS Medical School, integrating clinical care, research and education to pursue excellence in healthcare. We look forward to bringing these strengths to the partnership with AstraZeneca and help deliver lasting benefits to communities in Singapore, with a focus on diseases that are prevalent here and across the region, such as cardiovascular, kidney and metabolic diseases, as well as cancers that are common within the Asian population”

Professor Wong Tien Yin, Deputy Group CEO (Research and Education), SingHealth, and Vice Dean, Office of Academic & Clinical Development, Duke-NUS, said, “Public-private sector partnerships between the healthcare sector and biomedical industry are crucial to bring research from bench to bedside. We look forward to developing a meaningful partnership with AstraZeneca that is aimed at improving clinical outcomes for diseases that affect Singaporeans and communities in the region. For example, the use of data analytics and real-world evidence generation will enable us to predict disease risk and therapeutic outcomes so that we can institute timely clinical intervention and tailor treatment plans for patients.”

### **Co-creating economic opportunities and growth**

Through these strategic partnerships, AstraZeneca aims to co-create economic opportunities and support Singapore’s digital economy. This includes accelerating the development of new healthcare technology, growing talent and upskilling the workforce, and helping to fuel the growth of the biomedical industry.

Specifically, research expertise built through the work with A\*STAR and the SingHealth Duke-NUS AMC will inject new expertise into the biomedical community. AstraZeneca will also be providing opportunities for local and overseas training on genetic counselling through their partnership with A\*STAR.

### **Supporting Singapore's Smart Nation as a global innovation leader**

In the National AI Strategy, chronic disease prediction and management has been identified as one of five key projects. As a global, science-led biopharmaceutical company, AstraZeneca is a well-positioned partner for Singapore's Smart Nation efforts.

Through AstraZeneca's strategic R&D centres in Sweden, the UK and the US, AI, data science and digital technology are applied to accelerate R&D, personalise treatment, and improve patient outcomes as well as healthcare delivery.

As a founding partner of AI Innovation of Sweden, Sweden's national centre for applied AI innovation and research, AstraZeneca plays a leading role in driving the application of AI to drug discovery and development.

Together with leading Singaporean innovators such as eko.ai, the SingHealth Duke-NUS AMC and A\*STAR, AstraZeneca aims to transform healthcare and give more patients access to new digital healthcare solutions that can bring new hope to Singaporeans with challenging diseases.

AstraZeneca has been active in developing healthcare innovation partnerships in Europe and Emerging Markets such as China, Russia and Argentina. This has led to the creation of AstraZeneca health innovation hubs around the world, which are a unique opportunity for our Singaporean partners to showcase their world-class solutions and connect with leading biomedical innovation ecosystems abroad.

*Photo Caption: Top row - Left to Right: Deputy Chief Executive (Research) of A\*STAR, Professor Andy Hor; Senior Vice President of AstraZeneca Asia Area, Ms. Jo Feng; Swedish Ambassador to Singapore, H.E. Mr. Niclas Kvarnström; Minister for Trade and Industry, Mr. Chan Chun Sing; British High Commissioner to Singapore, H.E. Mrs. Kara Owen.*

*Bottom row - Left to Right: Executive Director of A\*STAR, Professor Patrick Tan; Co-Founder of eko.ai, Dr. Carolyn Lam; Country President of AstraZeneca Singapore, Mr. How Ti Hwei; Group Director (Research) of SingHealth, A/Professor Tan Say Beng; Senior Vice Dean (Research) of Duke-NUS Medical School, Professor Patrick Casey.*