

AstraZeneca constructs global healthcare network through Health innovation hubs

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AstraZeneca's Health innovation hubs are the centre for the interaction between patients, medicines, technology, healthcare professionals and policymakers.



AstraZeneca, the global, science-led biopharmaceutical company, focuses on the discovery, development and commercialisation of prescription medicines, primarily for the treatment of diseases in three therapy areas - Oncology, Cardiovascular, Renal & Metabolism and Respiratory. AstraZeneca operates in over 100 countries and its innovative medicines are used by millions of patients worldwide.

Health innovation hubs

Health innovation hubs put AstraZeneca at the centre of the interaction between patients, medicines, technology, healthcare professionals and policymakers. Each hub contributes to patient-centric goals by addressing different challenges based on its archetype. Through these hubs, AstraZeneca is constructing a global network comprised of both structural locations and virtual partnerships that work to solve, showcase and scale innovative and holistic health solutions. Each hub is locally driven and regionally relevant while operating on a shared agenda to optimise health management and improve patient outcomes. AstraZeneca currently has eight health innovation hubs located in the International region (Russia, China, India, Argentina, Brazil, Taiwan, Hong Kong and Singapore) and three in our Europe region (France, Sweden and Israel).

AstraZeneca-Singapore established strategic partnerships to improve health through innovation.

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.

Partnership with eko.ai

AstraZeneca's long-term global partnership with eko.ai, a Singaporean start-up funded by A*STAR A*ccelerate and the winner of this year's SLINGSHOT 2019 organised by Enterprise Singapore. eko.ai's technology uses AI in the early detection of cardiovascular disease. The two companies partnered to drive disease management solutions for patients with heart failure, with each company agreeing to:

- Collaborate from early-stage research and development to later stage scientific research to generate real-world evidence and explore the use and applications of eko.ai technology, including its diagnostic and predictive capabilities
- Identify synergies between AstraZeneca and eko.ai in technology, innovation and commercialisation to drive solution development and promotion
- Create opportunities for future joint or allied global or regional collaborations to maximise patient benefits in the cardiovascular area

This partnership will help eko.ai expand its global reach, strengthening its position as a strong ambassador of Singapore's thriving start-up sector.

Partnership with A*STAR

AstraZeneca and A*STAR will work together on areas and activities related to genomics and precision medicine, a fast-growing cutting-edge medical field that allows policy makers and healthcare professionals to approach disease prevention and treatment based on genetic understanding of the population. This partnership represents a significant knowledge and skills transfer to Singapore in this exciting frontier of biomedical sciences and includes the following potential areas for collaboration:

- Provision of AstraZeneca expertise on genomics, informatics and analytics processes, technical and clinical workflows and methods to accelerate development and implementation of precision medicine;
- Support upskill of Singapore medical and genomics workforce for precision medicine with trainings locally or overseas on genetic counselling, clinical genetics and bioinformatics; and,
- Access genomic, phenotypic and clinical data of population and disease cohorts for research collaborations on early discovery and clinical studies related to AZ's focus therapeutic areas.

Professor Patrick Tan Boon Ooi, Director, A*STAR Precision Medicine Office, and Executive Director, A*STAR's Genome Institute of Singapore, said, "This collaboration is testament to the importance of global partnerships, and it also demonstrates Singapore's attractiveness for the development of health tech and biopharmaceutical sectors. A*STAR will continue to support this high growth sector through public-private sector partnership in R&D and innovation-driven efforts."

Partnership with SingHealth Duke-NUS AMC

AstraZeneca will be exploring a partnership with the SingHealth Duke-NUS AMC on a number of research collaborations, such as research that leverages data analytics to promote new biomedical research and innovation in Singapore.

Avenues of collaboration may include;

- **Open innovation and translational research:** To increase drug development activity in and with Singapore;
- **Establishment of 'Centres of Excellence':** To connect SingHealth institutions with regional hospitals in Asia-Pacific to share best practices from Singapore and drive innovation;
- **Real world evidence (RWE) generation:** To generate RWE insights from SingHealth's clinical data in a bid to understand treatment patterns and improve patient outcomes;
- **Future healthcare technologies:** To utilise technologies (e.g., AI and IoT) to foster more patient-centric and cost-effective healthcare.

One of the key areas of collaboration will be in the Singapore Cardiac Longitudinal Outcome Database (SingCLOUD) programme, which brings together the National Heart Centre Singapore, MOH and all restructured hospitals and polyclinics to extract, integrate and analyse cardiovascular clinical data across multiple databases in the participating institutions to better

understand how to prevent and treat heart disease in patients.