

S'pore institute in \$21m tie-up to develop treatments for eye diseases

Glaucoma, myopia targeted in research collaboration with pharmaceutical firm

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The Singapore Eye Research Institute (SERI) is expanding its partnership with Japan's Santen Pharmaceutical with a new \$21 million research collaboration that aims to develop treatments for vision-threatening eye diseases such as glaucoma and myopia.

The Santen-SERI Open Innovation Center (SONIC) 2.0 is a three-year initiative, which will run from December 2025 to November 2028, combining Santen's pharmaceutical expertise with SERI's clinical and translational research capabilities.

Key research programmes under the collaboration include research and development into nov-

el compounds for treating glaucoma, as well as investigating anti-scarring agents, which can help to prevent vision loss caused by excessive scar tissue due to eye disease and after surgery.

The two will also collaborate on developing improved treatments for myopia.

They will explore the use of technology, such as artificial intelligence in evaluating potential therapies for presbyopia, the age-related condition that impacts the eye's ability to focus on near objects.

It is supported under Singapore's Research, Innovation and Enterprise 2025 Plan, which aims to enhance the nation's research and development.

The Santen-SERI partnership will work towards bringing two



Singapore Eye Research Institute executive director Jodhbir Mehta (seated, left) with Santen's Ophthalmology Innovation Center head Reza Haque at the Singapore National Eye Centre (SNEC) on Dec 3. With them are (standing, from left) Professor Thomas Coffman, dean of Duke-NUS Medical School; Santen chief operating officer Rie Nakajima; and SNEC's CEO Aung Tin. ST PHOTO: HESTER TAN

new treatments for glaucoma and myopia to the clinical stage. This is when trials are carried out to

determine a drug's safety and efficacy in humans.

The work will also make more

ophthalmic drugs available for Asia and the rest of the world.

SERI and Santen said in a Dec 3 statement the initiative is expected to deliver tangible outcomes.

It will contribute to Singapore's biomedical innovation landscape through talent development, commercialisation and future products by 2035.

SERI is the research arm of the Singapore National Eye Centre (SNEC).

The latest effort builds on SONIC 1.0, a \$37 million collaboration between 2017 and 2023 that saw the establishment of a joint lab at the Academia building on the Singapore General Hospital campus in Outram.

SONIC1.0 resulted in 13 research projects across various areas, including diabetic retinopathy, myopia, dry eye and glaucoma. Six joint patents were also filed.

The collaboration also saw the development of the first low-dose atropine drops approved for use in Japan, which were launched in

April. Low-dose atropine is used to slow the progression of myopia in children.

These drops will also progressively be made available in China as well as other parts of Asia, said Santen chief operating officer Rie Nakajima.

Santen and SERI had first worked together in 2014, collaborating on the development of ophthalmic pharmaceutical products, noted SNEC chief executive Aung Tin.

Professor Aung Tin, who is also the principal investigator for the SONIC 2.0 programme, pointed to a growing burden of eye conditions affecting patients around the world.

He described myopia – which affects some 2.6 billion people worldwide – as a huge problem, particularly in Asia.

Singapore has one of the highest prevalence rates of myopia in the world, with more than 80 per cent of the adult population having the condition.

A study published in the British Journal Of Ophthalmology in 2024 suggested that by 2050, Asia would have the highest prevalence of myopia, affecting about 69 per cent of the population.

"We hope to bring together our research and innovation ecosystems to work together and to deliver new solutions," said Prof Aung Tin.

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