Eye problem detector gets nod for sale in EU

CE mark for system developed here set to facilitate its acceptance in overseas markets

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A new device that takes less than two minutes to tell if a person has a major eye problem has just been approved for sale in Europe.

The system, developed jointly by the Singapore Eye Research Institute (Scri), the School of Computing at the National University of Singapore (NUS), can tell from a photograph of the person’s eye whether he has diabetic retinopathy, glaucoma or age-related macular degeneration with a greater than 90 per cent accuracy.

This is equal to or even better than the results of human graders, researchers said.

There are three eye conditions are major problems that cause people to go blind if left untreated.

The Singapore Eye Lesion Analyser (SEAL), or Selena, was first mentioned by Deputy Prime Minister and Minister for Finance Heng Swee Keat last November when he said the system “can be applied conveniently and effectively to the region and the world.”

Health Minister Gan Kim Yong also told Parliament during the debate on his ministry’s budget that there are plans to leverage technologies such as artificial intelligence, machine learning and robotics to support the work in public healthcare.

Selena—a deep-learning artificial intelligence software system that has proven to be more efficient in determining fast and accurate results, he said—

Mr Gan noted that it “highlights areas with potential vision-threatening eye diseases and reduces diagnostic times for human graders, allowing them to focus on the more complex cases.”

Significantly, one of the three public healthcare clusters in Singapore, the National Health Group, has licensed the technology on behalf of NUS and Scri. It has licensed it to local start-up Eyris, which obtained the European Union approval, known as a CE mark.

The system was approved for use by the Health Sciences Authority last October.

Eyris’ chief executive Lau Sook Kern said the CE mark is recognition that the system meets the requirements set by the European Union, which it must do to be marketed in the EU.

The company is currently preparing the product for market in Europe.

Gan added: “The approval of SEAL shows that Singapore is at the forefront of innovation in the field of ophthalmology. The collaboration between Scri and NUS, followed by the approval of the technology, is a significant milestone for Singapore.”

Singapore Optometric Association president Rene Yong said analysing the image of a patient’s retina on an AI system like SEAL “could help clinics cut the time from the photo of a patient’s eye whether he has diabetic retinopathy, glaucoma or age-related macular degeneration with a greater than 90 per cent accuracy.”