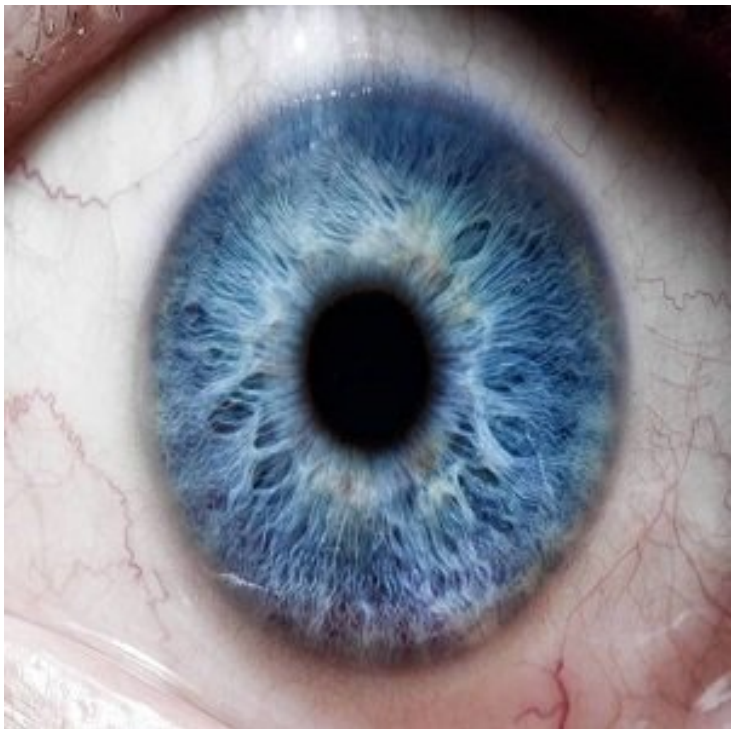


## Singapore biomedical innovation wins President's Technology award

11 November 2014 | News | By BioSpectrum Bureau

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**Singapore:** Singapore's President's Technology Award (PTA), 2014 is conferred to two teams in biomedical sector who have achieved outstanding breakthrough in eye research.

Professor Wong Tien Yin from the Singapore National Eye Centre (SNEC), and Professor Wynne Hsu and Professor Lee Mong Li from NUS, in collaboration with the Singapore Eye Research Institute (SERI), and A\*STAR's Institute for Infocomm Research (I2R), for the development of a suite of novel eye image analysis technologies. This platform allows the doctors to detect and track the progression of three major eye diseases which cause blindness as well as to study the onset of systemic vascular diseases such as stroke, heart disease and diabetes.

The platform uses advanced algorithms to enable automatic screening of retinal images and generation of medical reports at higher speeds and lower costs. These algorithms were validated through close collaboration with eye specialists and tested using an extensive retinal image database. The platform has since been adopted by six polyclinics, increasing productivity by replacing manual examination of retinal images for anomalies indicating disease. The technology has also been licensed and used by various universities, research institutes, hospitals and even in ophthalmic products.

The other winning PTA team comprises Professor Subbu Venkatraman and Professor Freddy Boey of Nanyang Technological University (NTU), and Associate Professor Tina Wong from SERI. They received this award for the development of a platform for sustained release of glaucoma medication. Glaucoma is the leading cause of irreversible

blindness globally, with Asians accounting for almost half of the world's patient population. The platform utilises a single injection of nanomedicine for the delivery of medication for up to six months, effectively preventing blindness caused by patient non-compliance to the regimen of daily eye-drop treatment.

The use of their innovative technology has been successfully tested through first phase in-man clinical trials. In addition, the team has also attracted interest from major pharmaceutical companies. The team has enriched Singapore's innovation ecosystem by establishing a start-up to commercialise the technology.