

More hope for heart patients

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By Ong Dai Lin

Mitral valve device among nine projects awarded grant from govt foundation

PATIENTS who need to replace the mitral valve in their hearts are placed at high risk when their hearts are stopped during the operation.

The mitral valve — located between the left atrium and left ventricle — stops blood from flowing in the wrong direction in the heart.

To help these patients, Professor Theodoros Kofidis from the Department of Surgery in the National University of Singapore (NUS) is developing an implantation device that can reduce the risks of the operation and halve the time taken for the procedure.

Surgeons need only to insert the device into the heart by turning and clicking it like a light bulb, said Professor Kofidis, who is also a cardiac surgeon of the National University Hospital.

He said: "If this succeeds, it could help thousands of patients in the region and all over the world. This could have immediate health benefits for the patient and reduce costs for the patient and the insurance (provider)."

Clinical trials are estimated to take at least five years, said Professor Kofidis, who predicted that all patients who need heart valve replacements will eventually be able to benefit from the device.

Professor Kofidis' project is one of nine to be awarded funding of up to \$250,000 each in the first grant call of the National Research Foundation's (NRF) Proof-Of-Concept (POC) scheme, the foundation said yesterday.

The NRF is a department within the Prime Minister's Office set up in January 2006 to spearhead Singapore's research and development mission. Among other objectives, it aims to coordinate the research of different agencies within the larger national framework to provide a coherent strategic overview and direction.

The POC scheme is part of the National Framework for Innovation and Enterprise announced by Prime Minister Lee Hsien Loong in March.

It provides funding to higher learning institutes to help them take projects from research to commercialisation.

The nine projects that were awarded funding were selected from 138 submissions based on the criteria of novelty, technical merit and commercial viability.

Among the other grant recipients, Professor Freddy Boey from the School of Materials Science and Engineering in Nanyang Technological University plans to use a new material to develop a hernia mesh to improve the treatment of hernia patients.

The other research projects include developing technology to enhance the performance of wireless networks and electronics, and microscopes that can improve bio-imaging.

Dr Francis Yeoh, the chief operating officer of the NRF, said: "The first grant call was very well-received and highly competitive. We hope that this scheme will motivate researchers to come up with innovative ideas and inventions, and take these forward along the path of commercialisation."

The second call for submissions under the POC scheme will take place next March.