

Funding for medical research and clinical care S\$50m for studies on obesity, dengue

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By Shobana Kesava

PROPOSALS for research into obesity and dengue have each clinched \$25 million in government funds to go ahead.

The two proposals were chosen by a mix of local and international reviewers in research and healthcare for the financial leg-up as the areas of study will have great impact on Singaporeans and Asians.

With the handing out of this \$50 million, all \$125 million for the programme to position Singapore as a leader in medical research and clinical care has been allotted.

The obesity and dengue studies are the last two of five study areas to be supported by the Agency for Science, Technology and Research-appointed council. The first, for research into gastric cancer, was given out in July last year; funds have also since gone into research for schizophrenia and innovations in eye surgery.

The acting chairman of the 13th Biomedical Sciences International Advisory Council, Nobel laureate Sydney Brenner, said the teams' obesity and dengue studies were picked because they had the best proposals and because they will 'focus on the areas in which we can excel'.

Council member Tadataka Yamada, who is president of the Gates Foundation Global Health Programme, agreed that these were two areas where Singapore can distinguish itself.

The American National Institutes of Health spends about US\$30 billion (S\$44 billion) in medical research every year, but puts hardly anything into dengue or gastric cancer, which are important in this part of the world, he noted.

Associate Professor Chong Yap Seng, a senior consultant with the National University Hospital's obstetrics and gynaecology department, will lead seven clinician-scientists into the obesity study.

They aim to develop more personalised drugs that can prevent people from developing obesity-linked conditions like diabetes and heart problems.

To do this, they will track children and pregnant women over time to determine how to match nutrition, medication and lifestyle to each individual's genetic make-up.

'Ideally, this study will continue long after I'm gone,' Prof Chong said, who noted that, by 2025, most of the world's expected 300 million diabetics are expected to be in Asia. Diabetes will hit 13.7 per cent of Singapore's population in 2030.

The study on dengue, to be carried out by 19 doctor-scientists, will involve all public hospitals and polyclinics, and rope in general practitioners who are the first point of contact with patients in the early, flu-like stage of the disease.

Associate Professor Leo Yee Sin, the clinical director at the Communicable Diseases Centre and head of the department of infectious diseases at Tan Tock Seng Hospital, will head the study team.

It will find out the markers to watch out for, and what makes the disease fatal, after which they can start working on a cure.

Dengue cases number 100 million every year.

Both study teams expect their grants to last five years.

What the teams hope to achieve

The obesity team

Objective: Prevent and treat obesity in Asians and raise the number of experts on the disease.

Shortcomings: The current focus tends to be on preventing diabetes, heart and kidney disease - complications of obesity - rather than on obesity itself.

Strategy: The 1,200 babies born at KK Women's and Children's Hospital and the National University Hospital will have their placenta, umbilical cord, body composition and genetic variations studied; lifestyle modification studies will be done on over 600 adults with obesity-linked diseases.

The dengue team

Objective: To create a world centre of excellence for clinical study and management of dengue, to test drugs and antibodies, and to find ways to diagnose the disease early and control it.

Shortcomings: Treatment focuses largely on supporting the patient through the ravages of the disease. No specific drug or vaccine exists.

Strategy: Learn the consequences of dengue, how to manage it, and how to prevent it from spreading.