

## Big winners, big plans



**WINNERS:** (From left) associate professors Allen Yeoh and Chng Wee Joo, Professor Michael Chee, Associate Professor Ong Sin Tiong, professors David Virshup and Wong Tien Yin, and Associate Professor Tan Eng King.

Research newcomer Duke-NUS Graduate Medical School was a big winner in the latest awards for doctor-scientists. **Liaw Wy-Cin** and **Shobana Kesava** find out what the winners plan to do

### **Singapore Translational Research Investigator Award, the top honour for doctor-scientists here:**

#### **Professor Michael Chee**

- » From Duke-NUS, studying brain processes
- » Plans to study how biological systems drive the way the brain processes information. Key questions include the long-run effect of memory-boosting drugs and how different individuals' decision-making abilities are affected by sleep deprivation.

#### **Professor David Virshup**

- » From Duke-NUS, studying cancer and stem cells
- » The research team from the school's cancer and stem cell

biology programme discovered protein signals called Wnt that feed cancerous tumours. It wants to find out how to block these signals.

- » Studies on animals are planned, with Dr Ong Sin Tiong's lab to reach a breakthrough in leukaemia.

#### **Professor Daniel Tenen**

From Harvard Medical School and the National University of Singapore (NUS), studying leukaemia and stem cells

- » While scientists now better understand how genes become abnormal in diseases involving blood organs and other tissues, they still do not completely know how to control their behaviour. Prof Tenen aims to

find a way to introduce genes in certain types of stem cells to treat leukaemia and lymphomas.

#### **Professor Wong Tien Yin**

From the Singapore Eye Research Institute and NUS, studying retinal diseases and how they are linked to heart and blood-vessel diseases

- » Prof Wong next wants to find out if there is the correlation between damaged blood vessels in the eye and the risk of heart disease and stroke is present at birth, and if changes in the blood vessels correspond to changes in genes when the disease hits.

### **The Clinician Scientist Award, for more junior scientists:**

#### **Associate Professor Aung Tin**

- » From the Singapore National Eye Centre and NUS, studying the group of eye diseases known as glaucoma, which occurs when the optic nerve is damaged

» Prof Aung's interest is in primary angle closure glaucoma. He wants to find out how this condition varies in patients, what the sub-types and underlying genes are, and how patients respond to therapy.

#### **Associate Professor Ong Sin Tiong**

- » From Duke-NUS, studying leukaemia
- » Prof Ong wants to find out why late-stage leukaemia patients develop resistance to conventional drugs.

#### **Associate Professor Allen Yeoh**

- » From the National University Hospital (NUH) and NUS, studying childhood leukaemia
- » Prof Yeoh wants to study genetic differences in the immunity systems of patients with childhood leukaemia to find out why some are at higher risk of developing severe infections after chemotherapy.

His aim is to work towards minimising side-effects of treatment. Those with childhood leukaemia here have an 80 per cent chance of being cured.

#### **Associate Professor Tan Eng King**

- » From the National Neuroscience Institute and NUS, studying Parkinson's disease
- » His lab will look at gene variations that give Chinese in Singapore and Taiwan a higher chance of getting Parkinson's disease. He will also research tremors in the body; a disabling feature caused by degenerating nerves, largely due to old age.

#### **Associate Professor Chng Wee Joo**

- » From NUH and NUS, studying cancer
- » His plans include a search for the genetic origins of myeloma, a blood cancer that affects the bone marrow. He aims to find better ways to diagnose, treat and lengthen the life of the 80 new patients identified each year in Singapore.