

First Asian team to win top cancer research award

Team from S'pore, Japan, Taiwan, Thailand looked at factors specific to cancers in region

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Investigating Asian cancers would allow the study of interactions between the environment and cancer in a more direct way compared with Western cancers.



PROFESSOR PATRICK TAN, from the Duke-NUS Medical School, who led the 11-member team, on the focus of the study.

Samantha Boh

For decades, the battle against cancer was fought largely in the West, with cancer types that plague mainly Asians neglected in research.

But the tide has turned. Today, 44 per cent of cancers occur in Asia, where slightly more than half of cancer deaths occur. This has given rise to an urgent need for more research into so-called Asian cancers, such as cancer of the stomach, liver and lymph nodes.

Taking up the challenge, a team of scientists from Singapore, Japan, Taiwan and Thailand delved deep into interactions between the envi-

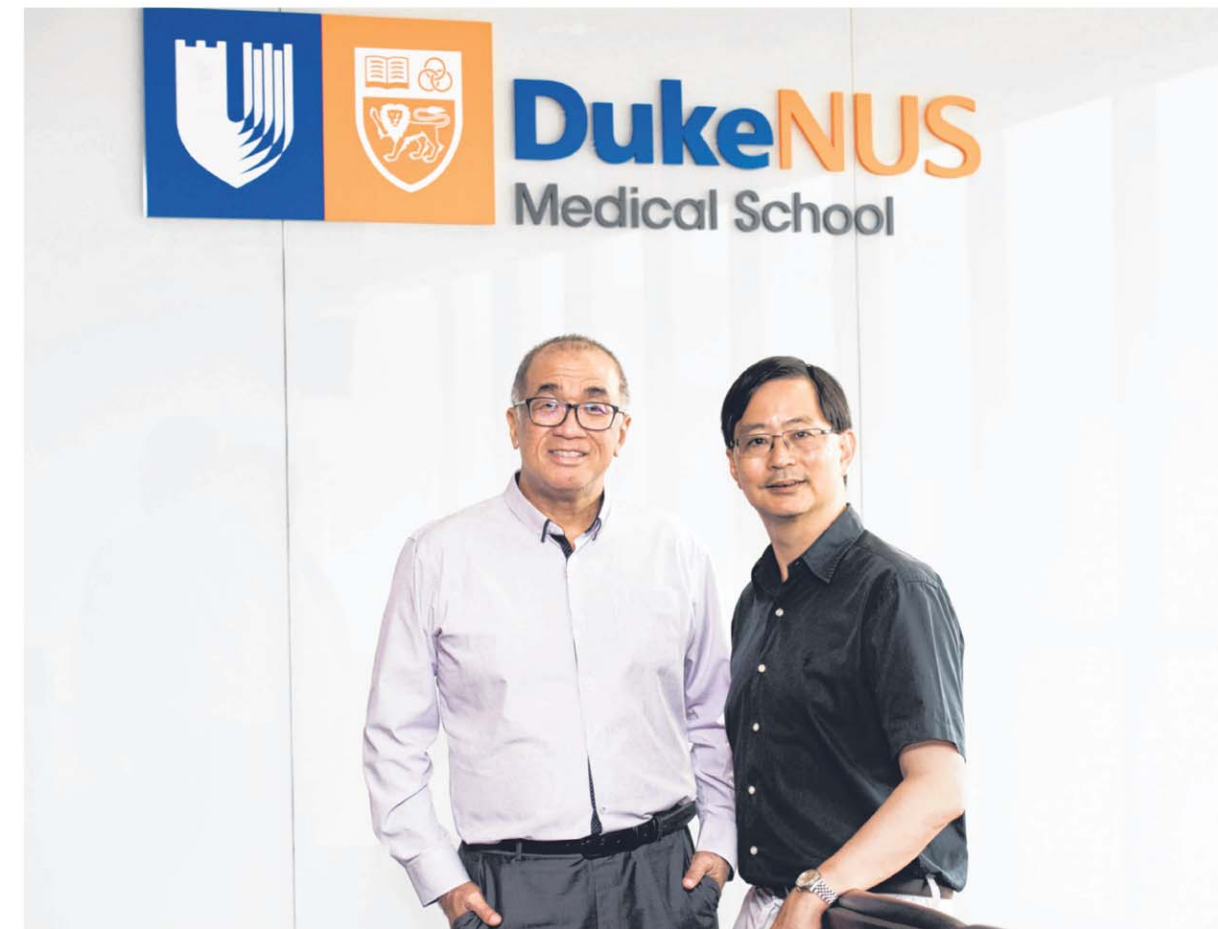
ronment and cancer, a link that they found to be more pronounced in the East than the West.

Many Asian cancers, they said, could be linked to specific exposures and environmental agents such as bacteria, viruses and toxins.

“We hypothesised that investigating Asian cancers would allow the study of interactions between the environment and cancer in a more direct way compared with Western cancers,” said Professor Patrick Tan of Duke-NUS Medical School, who led the 11-member team.

Their work made them the first Asian team to receive the prestigious American Association for Cancer Research (AACR) Team Science Award earlier this month.

In the course of their research, they have found a link between aristolochic acid, a compound found in some traditional Chinese remedies,



and liver cancers.

They have also uncovered new genes that frequently mutate in bile duct cancer, which is particularly prevalent in north-west Thailand due to the long-term consumption of raw fish infected with liver flukes, which are parasitic worms.

“People knew about some of these specific agents, but, what was unknown was how these agents changed human cells molecularly to become cancer, and if these cancers are similar to those seen in Western cancers,” said Prof Tan.

Professor Teh Bin Tean from Duke-NUS and the National Cancer Centre Singapore (NCCS), one of the six team members from Singapore, said: “What we want to do in the future is to study how our genome interacts with the environment. Besides exposure, we believe genetic differences between ethnicities may also impact cancer formation.”

The other Singapore members are Professor Steve Rozen from Duke-NUS, Professor Lim Soon Thye and Dr Ong Choon Kiat from NCCS, and Dr Khor Chiea Chuen from the

Genome Institute of Singapore.

They hope that by dissecting the effects of cancer-causing exposures, they will be able to come up with new methods of cancer prevention. They also hope their studies of Asian cancers will facilitate a better understanding of other cancers worldwide.

“This award does not mean the story is finished,” said Prof Tan.

“We are always looking for the next challenge.”

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Duke-NUS Medical School professors Teh Bin Tean (far left) and Patrick Tan are part of the team, which also included scientists from Japan, Taiwan and Thailand. They found that many Asian cancers could be linked to specific exposures and environmental agents such as bacteria, viruses and toxins.

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