



Prof Matsudaira (right) has taken Prof Hew's place as head of NUS' biological sciences department after 24 years at MIT. "I would probably be able to develop my scientific ambitions faster here, than in the US," he said. ST PHOTO: JOYCE FANG

Don gave up MIT job when offer came

HE WAS nursing a broken arm from a fall at the Jurong skating rink the day before. So when his research partner asked him out for coffee, Professor Paul Matsudaira thought he was going to get some sympathy.

What he was offered instead was Professor Hew Choy Leong's place as head of the National University of Singapore's (NUS) biological sciences department.

For the 56-year-old scientist, it was not a difficult decision to make, given what he had heard about the robust research climate here.

"I felt like the A-team was in charge in Singapore," he told *The Straits Times*.

So, after 24 years at the prestigious Massachusetts Institute of Technology (MIT) in the United States, he quit his job and moved here with his wife and two young children this year.

Prof Matsudaira is no stranger to Singapore or NUS. He had worked with Prof Hew, 67, under the Singapore-MIT Alliance programme during the past four years, and both were co-chairs for the computation and systems biology programme.

The collaboration saw Prof Matsudaira making regular trips to Singapore, and managing projects both here and in the US.

But the frequent 3am conference calls soon "started to get weary after a while".

"I'm not wishy-washy, I'm either in or not in. It was getting hard to straddle research on both sides of the Pacific.

"How can you expect to lead people if you yourself can't make the right decision?"

And the right decision, for Prof Matsudaira, was to sink his roots here.

He said: "There is a huge momentum in research and development (R&D) in Singapore. I realised I would probably be able to develop my scientific ambitions faster here, than in the US."

Prof Matsudaira and his wife Maureen, 43, also felt that Singapore was a good place to bring up their children, Hana, eight, and John, six.

The chemistry major, who later switched to biology, wants to build a physics focus into his department's biology work.

"Biology is becoming more complex. Traditional biologists trained in the past few decades had a solid background in life sciences.

"But biology is becoming a

much more quantitative discipline. So biologists will need to use computation easily as tools."

He is looking to attract more students and scientists with a physics, mathematics or engineering background.

Things are settling in nicely, he said.

The family has an apartment at the university residences Kent Vale, his wife is doing public affairs work for the Duke-NUS Graduate Medical School and his children attend the Singapore American School.

They even have a new addition to the family, a four-month-old pug. "With us, it's an apartment, dog, car. So we're looking at the car next," he said.

LIAW WY-CIN

Breakthroughs during don's tenure

PROFESSOR Hew Choy Leong, 67, has stepped down as head of the National University of Singapore's biological sciences department after nine years, but he is still teaching and conducting research.

Research breakthroughs during that time include:

- Professor R.M. Kini, in collaboration with scientists in Australia, France and the United States, discovered the first species-specific toxin in the mangrove catsnake. They found that this venom was specifically designed to kill birds. Learning more about such poisons helps in designing drugs.

- Professor Ding Jeak Ling led a team which discovered that haemoglobin – the protein that gives blood its colour – is

capable of producing toxic-free radicals that kill disease-causing micro-organisms such as bacteria.

This may mean that anti-bacterial strategies can be developed to benefit patients whose own defective immune systems cannot protect them from disease.

- Dr Li Daiqin and Dr Matthew Lim found that male jumping spiders use ultraviolet B, or UVB, rays to communicate with females, the first evidence of such light rays being used in animal communication.

- Professor Gong Zhiyuan led the development of the world's first genetically engineered pet – a tropical zebrafish infused with the gene of a sea anemone that makes it glow fluorescent red.