

Margaret Brimble

Winning a prestigious international award is just the latest accolade in a glittering scientific career.

When Professor Margaret Brimble strode off her plane and into Paris's Charles de Gaulle International Airport in February, she was greeted not by a welcoming committee but by herself: well, a life-size photo of herself stooping over shellfish on Piha Beach. All around the airport, posters were plastered of the five laureates in the prestigious 2007 L'Oréal-UNESCO for Women in Science Awards (nothing to do with makeup — the award is sponsored by L'Oréal, commissioned by the United Nations Educational, Scientific and Cultural Organisation, and bestowed by a jury of the world's scientific elite).

Awarded for pioneering organic chemistry and drug development, the University of Auckland professor was the first New Zealander to receive the Asia-Pacific Laureate (worth \$NZ145,000). Accepting the award at UNESCO headquarters in front of 2000 eminent guests, Brimble resurrected schoolgirl French to speak

half en Français/half in English. But it was when a documentary about her life in science flashed onscreen that it suddenly all felt surreal. ("I couldn't quite believe I was there — we all applaud arts and sports but science? Not often.")

After the ceremony she gave more than 50 interviews to everyone from *US Biotech* to *Russian Vogue*. With answers prepared for the three-hour media conference, she was still thrown when an interviewer breathlessly wondered what qualities she looks for in a man. "Luckily my husband Mark had taken [their nine-year-old daughter] Rebecca to the Louvre!"

At just 46, Brimble's list of global honours, lectures, committees, projects, articles and teaching posts would take up this entire page. For nine years she's held the chair of organic and medicinal chemistry at the University of Auckland (she established the country's first medicinal chemistry degree there in 2001) where she heads the 27-strong team the Brimble Group.

Brimble describes her research as "a complex game of molecular chess". By

synthesising biologically active natural products, she provides novel compounds used to develop new drugs. To look at it another way: she studies natural toxins, reproduces them in the lab (this can take years), sees how they affect nervous-system cells and — by manipulating their chemical structures — turns them into new therapeutic agents.

The main targets are medicines for cancer, cardiovascular disease, peptic ulcers, fungal agents and Alzheimer's. Currently the team is manipulating the properties of two shellfish toxin families to develop treatments for pain, epilepsy, hypertension, cancer and stroke. And in partnership with Auckland-based Neuren Pharmaceuticals, the Brimble Group has synthesised NNZ2566, a world-first, traumatic brain-injury neuroprotective agent, now in the second stage of clinical trials, and it has developed a promising Parkinson's treatment.

Brimble insists that nurturing our small pharmaceutical industry is imperative to keep both the profits and young scientists in New Zealand. A proud Kiwi who's spurned



Margaret Brimble: "molecular chess player".

overseas offers to remain here, Brimble says she experienced her laureate "first as a New Zealander, second as a scientist and third as a woman". But she'd love her award to inspire more young women to enter male-dominated laboratories.

Honourable Mentions

Richard Faull

Good news for the one in five New Zealanders who suffer Parkinson's, Alzheimer's, Huntington's, stroke or epilepsy — in February, University of Auckland Professor Richard Faull published the world-first discovery that immature

stem cells migrate throughout the adult brain — even diseased ones. Previously, scientists believed human adult brains were incapable of making new cells. This opens the way for brain damage-repair treatments and the University of Auckland has received ethical permission to try to grow repair cells in post-mortem human brains. In November our human-brain world expert — who established the Neurological Foundation Human Brain Bank at the University of Auckland to support international research on human neurodegenerative diseases — was awarded New Zealand's top science honour, the 2007 Rutherford Medal.

Keith Woodford

In September, Professor Keith Woodford

of Lincoln University released his book *Devil in the Milk: Illness, Health and Politics, A1 and A2 Milk*, claiming A1 milk protein beta-casein is causing health problems. Despite a New Zealand Food Safety Authority campaign promoting milk as safe to drink, the farm management and agribusiness professor's work — capping a decade of research linking A1 to health issues — may lead our largest company, Fonterra, to switch to only A2 beasts. In October, the NZFSA announced an independent expert review of both the science related to A1/A2 milk, as well as a response to the Woodford book and the safety of New Zealand milk. And no, Woodford has never held shares in A2 Corporation. +

