

News Release



Human brain research wins Liley Medal

Auckland, 16 November 2005

Identifying that the diseased human brain has the potential to repair itself has earned The University of Auckland's Professor Richard Faull the Liley Medal for health research.

The medal, awarded annually by the Health Research Council of New Zealand (HRC), recognises an individual whose research has made an outstanding contribution to the health and medical sciences.

Professor Faull, a Professor of Anatomy, was awarded the prestigious medal for research that shows, contrary to previously held views, that the human brain has the potential to generate new neurons and to repair itself in response to brain cell death.

This has exciting implications for the development of new strategies for treating neurodegenerative diseases, such as Huntington's disease, Alzheimer's disease, Parkinson's disease, stroke and epilepsy, which affect one in five New Zealanders.

HRC Chief Executive, Dr Bruce Scoggins, says Professor Faull's paper has made a significant impact in the field of neuroscience and neurology.

"The HRC Board in nominating Professor Faull as this year's recipient of the Liley Medal recognises that this research has opened up avenues for potential therapy for patients with neurodegenerative diseases and provides hope for future patients with such brain diseases."

“Published in *Neuroscience 2005*, the paper has also attracted considerable international attention and recognition for the research group involved and for New Zealand health research,” he says.

The Liley Medal is named after Sir William Liley KCMG, BMedSc, MBChB PhD FRSNZ, FRCOG to recognise his lifetime contributions to health and medical sciences.

Sir William (Bill) Liley developed techniques enabling the first blood transfusion to a baby in the womb in 1963. He was able to diagnose Rh hemolytic (blood) disease by taking amniotic fluid from the mother during pregnancy, now a routine diagnostic procedure. These discoveries saved many babies’ lives and made him the father of fetal medicine.

The medal was designed by Philip O’Shea Esq NZ Herald of Arms Extraordinary to Her Majesty The Queen, and crafted by Thomas Fattorini and Sons of Birmingham. The reverse design features fern fronds, reflecting Sir Liley’s work – some coiled (alluding to new birth), and other fully extended (healthy) fronds. In Maori art, the coiled fern frond often suggests an embryo.

Professor Faull was presented the Liley Medal at the annual Royal Society Zealand Science Honours dinner on Wednesday 16 November 2005.

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In addition, information about Professor Richard Faull can be found on the HRC website:

<http://www.hrc.govt.nz/assets/pdfs/publications/HRC04%20faull%20and%20dragunow%20updated.pdf>

Sir William Liley KCMG, BMedSc, MB, ChB, PhD (ANU), Hon. DSc (VUW), Dip Obs, FRSNZ, FRCOG, Hon. FACOG (1929 – 1983)

Although it is more than 20 years since his passing Sir William Liley's contribution to medical science, particularly in the area of obstetrics, is still celebrated.

Born in Auckland in 1929 Albert William Liley – who always preferred to be known as Bill – was educated at Royal Oak Primary School before moving on to Auckland Grammar where his intellectual capacity began to blossom.

Awarded a University National Scholarship in 1947 Bill Liley distinguished himself at both Auckland and Otago Universities. He was gold medallist in anatomy in 1950, secured a Senior Scholarship in medicine and was awarded the Travelling Scholarship in medicine in 1954.

Instead of taking up the scholarship he headed for the Australian National University where he took up a research scholarship in physiology, working on various aspects of synaptic transmission. Despite being a recently qualified medical graduate he had four papers published in the Journal of Physiology.

Bill Liley returned to Auckland as a Sandoz Research Fellow and in 1958 was awarded a Research fellowship in obstetrics by the Medical Research Council of New Zealand, the HRC's predecessor. From that time until his premature death in 1983 he held a series of appointments with the MRC, including being a council member between 1972 and 1978 and Chairman of the South Pacific Health Committee between 1973 and 1978.

In 1968 Bill Liley was appointed to a personal Chair in Perinatal Physiology at the University of Auckland's Postgraduate School of Obstetrics and Gynaecology. He was particularly attracted to the problems of unborn and newly born children and his major focus became Rh haemolytic disease of the newborn – a major issue in obstetrics. At the time he entered the field perinatal mortality was about 25%.

One of his great contributions lay in extending the use of spectrophotometry of amniotic fluid to a much wider range of potentially affected pregnancies – work which gain him an international reputation. The technique he developed made it possible to identify which baby could be retained safely in utero for a normal gestation period and which should be delivered. As a result perinatal mortality from haemolytic disease at National Women's Hospital fell to 8%.

A CMG in 1967 and was followed in 1973 by a knighthood (KCMG). Sir William's work was also internationally recognised by a variety of organisations. He served as a member of the WHO Expert Advisory Panel on maternal and child health from 1968 until his death. He was an Honorary fellow of the American College of Obstetricians and Gynaecologists and was appointed a member of the International Association for Advice and Research on Mental Deficiency. He also held several other honorary fellowships and memberships of prestigious societies overseas.

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An extended biography prepared by Sir John Scott sums up his life in this way:
“Sir William Liley embodied many characteristics which have typified the leaders and giants of scientific endeavour in New Zealand. He combined top-flight intellectual ability with practical skills, humanity and humility. His accomplishments indicated to his generation and those coming after that achievement on a world scale was very much within the grasp of dedicated scientists who chose to return or remain in New Zealand.”

Ends.