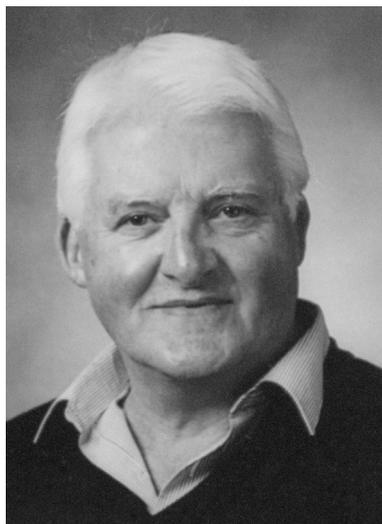


## Obituary

Robert John (Robin) Ferrier (1932-2013)



Robin is honoured as the grandfather of carbohydrate chemistry in New Zealand. Three of his PhD student 'children', Regine Blattner, Peter Tyler and one of the authors (RHF) were founding members of the 35-strong world class applied carbohydrate chemistry group at Industrial Research Limited (now Callaghan

Innovation). Other 'children' have made significant contributions in industry, Crown Research Institutes and ministries in New Zealand and overseas.

Robin was born in Edinburgh and attended George Heriot's School. He described his discovery of organic chemistry as a 17-year-old schoolboy as a major piece of good fortune, and he immediately recognised it as the subject he wanted to pursue. He attended the University of Edinburgh and gained a Bachelor of Science with first-class honours in 1954 and a PhD in plant polysaccharides in 1957, under Professor Gerald Aspinall.

Appointed to a teaching position at Birkbeck College in the University of London, Robin's focus turned from polysaccharides to monosaccharides. New laboratory tools and methods enabled their reactions and mechanisms to be studied like normal organic compounds, rather than a separate field, and Robin pioneered this approach. In the early 1960s as a NATO Postdoctoral Fellow, he worked in Professor Melvin Calvin's group at the University of California, Berkeley. They were exciting times. While Robin was there, Calvin was awarded the Nobel Prize for Chemistry, and Robin met Carolyn, the pair marrying in Edinburgh in 1962.

Arriving in New Zealand in 1970 as New Zealand's first and Victoria's only Chair of Organic Chemistry, Robin continued to lead work on the monosaccharides, specialising in their use as starting materials for the synthesis of non-carbohydrate compounds of pharmaceutical interest. He had previously clarified the mechanism of the Fischer glycosidation and discovered an allylic rearrangement reaction of glycals, now known as the Ferrier rearrangement – the first of two reactions that bear his name. Many of Robin's best discoveries were made by following up unexpected chemical observations, which often led him into uncharted territory. His second 'name' reaction, the Ferrier carbocyclisation, was the result of this approach.

Robin had a small research group, high expectations of progress and a rigour that demanded all experimental re-

sults be fully validated before they could be believed. His firm approach was softened by a quick wit and mischievous sense of humour. In his 50-year career, Robin published 180 papers, reviews and books, and gave 10 invited plenary lectures at international symposia. His reviews were of particular benefit to the chemical community, but perhaps of most value was the book *Monosaccharide Chemistry*, written with Dr. Peter Collins in 1972, and extensively updated as *Monosaccharides: Their chemistry and their roles in natural products* in 1995. Robin was elected Fellow of the Royal Society of New Zealand (1977) and of the New Zealand Institute of Chemistry (1972), and was awarded a DSc (London, 1968).

Robin loved sport. He played for the school cricket team from age 14, was an East of Scotland doubles champion in tennis and sported a nose rearranged by rugby. He spent days burning to a crisp at the Basin Reserve watching New Zealand play test cricket, and later in life he took up golf, one of his few concessions to retirement. He also found opportunities where his chemistry could serve the nation. Notable were his service on the Toxic Substances Board in the 1980s and the leadership of the RSNZ report *Lead in the Environment* that confirmed the toxic effects of lead and began the phase-out of leaded petrol.

Robin and Carolyn were unfailingly hospitable to visiting chemists and loved to entertain people from all over the world. They were also loyal and regular members of the Presbyterian Church, St John's in the City; Robin became an Elder in 1974 and served as Session Clerk and on various committees throughout his life. He was also the Presbytery representative on the Board of Governors at Scot's College for 13 years.

After his retirement from Victoria University in 1998, Robin entered what he referred to as his 'supposed retirement', working with the carbohydrate chemists at Industrial Research. Here he continued to foster the next generation of carbohydrate chemists in New Zealand – his 'grandchildren', instilling his rigorous approach to chemistry with mentoring and assistance with the group's publications.

In August 2012, Robin celebrated his 80<sup>th</sup> birthday and retired a second time. Later that year, the Ferrier Trust was set up in his honour, to bring a superstar scientist to New Zealand each year, to engage with chemistry students and lecture. Peppi Prasit, a Ferrier PhD graduate and founder of Amira Pharmaceuticals and Inception Sciences in the US, was the trust's foundation donor. Despite Robin's failing health and memory, it was a delight to have him attend the inaugural Ferrier Lecture in March 2013.

**Richard Furneaux**  
**Sarah Wilcox**