

Passing of science star Professor Harry Messel 8 July 2015

A life lived in pursuit of excellence is a life well lived — Harry Messel

Professor Harry Messel AC CBE, a major force in science research, communication and education, and Head of the School of Physics at the University of Sydney for 35 years, passed away on 8 July 2015 at the age of 93.

The timing is poignant, as the International Science School – one of his major achievements and passions – is currently running on campus at the University of Sydney, with senior high school students from around the world participating in an inspiring two-week science experience.

Professor Messel passed away at the Allamanda Private Hospital in Southport, Queensland, where he had been recuperating after surgery.

As Head of the School of Physics from 1952 to 1987, Professor Messel's passion for physics, for education and for the pursuit of excellence inspired generations of scientists and students.

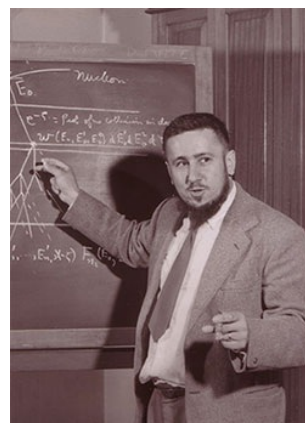
Since retiring, he continued to maintain close ties to the University of Sydney and remained a great supporter of the School of Physics. The newest lecture theatre on campus is named in his honour – the Messel Lecture Theatre, in the Australian Institute for Nanoscale Science and Technology building – which is due to host its first lecture tomorrow as part of the International Science School.

"Harry Messel was a remarkably dynamic advocate for the importance of science education and research in Australia from the 1950s through to today. We all admire and recognise the many years of service that Harry has given to the University of Sydney and the Australian education system," said Professor Tim Bedding, Head of the School of Physics. "On behalf of the School of Physics, I extend sympathies to Harry's wife Pip and his extended family."

Professor Messel is credited with the reinvigorating of the School of Physics upon his appointment as Head of School in 1952. He inherited a depleted physics department and during his impressive tenure of 35 years, developed it into one of the most accomplished physics departments in Australia.

In 1954, Professor Messel established the Nuclear Research Foundation, which is now the Science Foundation for Physics, in order to raise funds to develop and support research in the School of Physics. It was the first foundation in the British Commonwealth. At that time, the Australian Government funded only the Australian National University for major research and there were no competitive grant schemes for other universities.

As the Head of School, he raised more than \$130 million for the Foundation from individual donors, business and governments throughout the world and was able to set up several research groups of international standing within the School.



Professor Harry Messel, Head of the School of Physics at the University of Sydney for 35 years, inspired generations of scientists and students.



Professor Harry Messel's passion for physics, for education and for the pursuit of excellence had a major impact on Australian science.

Professor Messel also played a leading role in the introduction of computers to Australia. In the early 1950s, the Australian Government had decided to shut down and not replace CSIRAC, the only computer in Australia, which had been built a decade earlier by the Commonwealth Scientific and Industrial Research Organisation. During the period from 1954 to 1956, he raised the funds for and supervised the construction of SILLIAC in the School of Physics. This computer, the second in Australia, was a clone of ILLIAC at the University of Illinois, USA, which was then one of the most powerful computers in the world. SILLIAC was used to perform many scientific, engineering and commercial calculations, to demonstrate the utility of computers to state and federal governments and the business community, and to train a generation of computing academics and professionals. This led to a rapid uptake of this important technology throughout Australia.

In the early 1950s, Professor Messel went public with his concerns about the quality of science education in Australian high schools. During the next decade, he was responsible for two major initiatives: the International Science School and an integrated science syllabus in high schools.

Around 145 students from Australia, Canada, China, India, Japan, Malaysia, New Zealand, Singapore, Thailand, UK and USA attend the bi-annual International Science School, which involves two weeks of lectures given by eminent scientists from around the world as well as a wide program of science-related activities.



Professor Harry Messel with his famous blue science textbook for high school students, which helped revolutionise teaching of science in high schools.

Until the early 1960s the four basic science disciplines were taught separately in Australian high schools. Professor Messel campaigned successfully to require all NSW high school students to study an integrated science syllabus in their first four years. He and the Foundation produced the first textbooks for the new syllabus and helped to provide resource materials for teachers who had training in only one or two of the separate disciplines. The integrated model was introduced in NSW schools in 1963, and subsequently in all Australian states and in many other countries, including New Zealand and the UK.

"Professor Messel is a larger-than-life figure who has made an enormous contribution to Australian society, particularly in education at both secondary and tertiary levels, and in scientific policy and research. His achievements for the field of physics are renowned and numerous within Australia and the international physics community. Many things would be quite different today without his vision, enthusiasm, determination and seemingly unlimited capacity for work," said Professor Bedding.

Professor Messel was also an alumnus of the University of Sydney, gaining a Master of Science in 1987 and in 1992 was awarded an honorary Doctor of Science (*Honoris Causa*).

Professor Messel was appointed a Commander of the Order of the British Empire (CBE) in the 1979 New Year's Honours list; and a Companion of the Order of Australia (AC) in the 2006 Australia Day Honours for his service to Australian science and to education as an outstanding educator raising awareness of the importance of the study of science and in particular physics, for instrumental contributions to improving science teaching in schools, and for conservation advocacy relating to endangered crocodile and alligator species.

In recognition of Professor Messel's significant contributions to physics, teaching and the pursuit of excellence, the University of Sydney has named the Harry Messel Outstanding Achievers Scholarship in his honour.