

About

Emeritus Professor Kiang Ai Kim



About Professor Kiang Ai Kim

~ Scholar, teacher, public servant ~



Born in Singapore on 8 November 1915, Professor Kiang graduated from Raffles College with a First Class Diploma in Science in 1938. He then became the first Singaporean scientist to join the Chemistry Department of Raffles College and played a crucial role in re-establishing the Chemistry Department immediately after World War II. He obtained from the University of London the external degrees of B.Sc. in 1939 and B.Sc. Special in Chemistry in 1948. In 1949, he was awarded the Queen's Fellowship for postgraduate study in Cambridge University. After obtaining his Ph.D. in 1952, he was appointed a lecturer in the University of Malaya, Singapore. In 1960, he became the first Singaporean to be the Professor and Head of Chemistry. Professor Kiang was very much an integral part of the University

throughout his years of service. With great enthusiasm and drive, he threw himself whole-heartedly into building up the Department into one of the best not only in the University, but also in the region. During a time of rapid political development in the Federation of Malaya and in Singapore in the 1950s and 1960s, Professor Kiang's influence was felt at all levels of university life in both the Senate and the Council. He was a member of a liaison committee to co-ordinate the setting up of a division of the University in Kuala Lumpur from 1957 to 1962. This led to the establishment of two independent universities, namely the then University of Malaya in independent Malaya and the campus in Singapore became the University of Singapore.

In Singapore, the University continued to expand in anticipation of impending independence of the State and consequently the increased requirement of expected scientific manpower to build an industrialised and prosperous nation. All these required additional departments and staff, new buildings and equipment, etc. In 1963, with the advice of Professor R.T. Fowler of the University of New South Wales and Professor P.D. Ritchie of the University of Strathclyde, Professor Kiang introduced a new course - Applied Chemistry - in his Department so that more graduates could be prepared to serve the growing industries in Singapore. The Applied Chemistry course evolved later into a full course of Chemical Engineering and was transferred to the Faculty of Engineering. He also submitted proposals for the introduction of courses of microbiology and of food science as early as in the 1960s, although they were only introduced in the late 1970s.

The 10-storey Science Tower built at the Bukit Timah campus to accommodate the Chemistry Department stands as a constant reminder of Professor Kiang's devotion to the cause of scientific education in Singapore.

From 1968 to 1971, Professor Kiang served as Dean of the Faculty of Science in the University of Singapore. His able leadership of the Faculty ensured its smooth and steady development. He also served as the Master of Raffles Hall from 1959 to 1960 and is fondly remembered by former resident students as their mentor and friend. In recognition of his distinguished scholarship and outstanding service to the University for more than 30 years, he was conferred the title of Emeritus Professor when he retired in 1971 to venture into industry and commerce. He was immediately invited by Edible Products Ltd, a vegetable oil refining company to be a Technical Director. In 1973-1974, he became Technical Consultant to Sime Darby Holdings Ltd and established strong relationships with scientists working in the palm oil and food industries in Malaysia. In recognition of his work, Professor Kiang was conferred Fellow of the Malaysian Scientific Association (MSA) and of the Institut Kimia Malaysia (IKM) in 1972 and 1974 respectively. He was given the Silver Jubilee Award by MSA in 1980 and a Gold Medal Award by IKM in 1987.

In 1975, Professor Kiang was invited to head the Department of Chemistry at the Nanyang University. He gave much support and encouragement to the staff and students and helped bring about a smooth merger of the two Chemistry Departments when the National University of Singapore was formed in 1980. He finally retired from academic life in 1980 at the age of 65. Professor Kiang Ai Kim passed away on 18 July 2009 at the age of 93. He is survived by three children, six grandchildren and six great-grandchildren.

~ Chemist at heart, life scientist at work ~

Professor Kiang's main interest was in the chemistry of organic heterocyclic compounds and natural products occurring in plants and animals. The latter covers a wide range of topics in organic chemistry, viz. foodstuffs and agricultural products; physiologically and pharmacologically important compounds; constituents of cells in life's reproduction processes like nucleic acids, RNA's and DNA's, etc. which are fundamental to the study of life sciences. They joined the phytochemical surveys and even sent their experts to work in the Department.



Professor Kiang also received in 1965 a three-year grant ca US\$25,000 from the National Institute of Health (NIH) of USA in support of his research work. The research in phytochemistry attracted much attention from similar work in other parts of the world, especially Australia.

The surveys did not yield useful products with the requisite pharmacological properties. However, Professor Kiang, his colleagues and graduate students selected some plants for detailed investigation of the constituents on a larger scale. The investigations provided very good training ground in research techniques used for studying the chemistry of natural products. The results, published in more than 30 papers, showed that some interesting new compounds were isolated and characterised. In some cases, there was collaboration with famous chemists overseas like Dr W.I. Taylor of CIBA, USA; Professor Klaus Bieman of MIT, USA; and Professor Koji Nakanishi of Tohoku University, Japan. They supplied the NMR spectra and mass spectra required for determining the structure of the new compounds as equipment for them were then not available in the University of Singapore. In 1961, the Department was a centre for an UNESCO sponsored Training Course in Phytochemistry, which was attended by 13 workers from various countries in South East Asia.

Professor Kiang was also invited to many international meetings such as:

- The 4th Australian Phytochemical Conference in Melbourne (1955)
- The IUPAC Symposium of Natural Products in Melbourne, Canberra and Sydney (1960)
- The IUPAC Symposium on "The Chemistry of Natural Products" in Tokyo (1964)

Besides the above-mentioned, Professor Kiang also represented Singapore at the following meetings:

- United Nations' Seminar on Industrial Research and Development Institutes in Developing Countries, Beirut (1964)
- UNESCO Pilot Project in the Teaching of Chemistry, Bangkok (1966)
- 5th Commonwealth Education Conference, Canberra (1970)

~ A life-long community servant ~

Outside the confines of the University, Professor Kiang's activities were equally numerous and widespread. He was once aptly described as "a man with boundless energy which he uses with prodigality for the benefit of his fellowmen". In spite of the heavy duties as administrator, teacher and research scholar, he was very active in public and social services.

He was a founding member of a number of clubs and associations, such as the Gan Eng Seng School Old Students' Association (GESSOSA), the Singapore National Institute of Chemistry, the Singapore Institute of Food Science and Technology.

Professor Kiang also served on the committees of the following public and social service organisations:

- The Pan Malayan Scientific Advisory Council (1951-1958)
- Singapore Education Advisory Council (1959)
- The Board of Governors of the Singapore Polytechnic (1960-1961)
- The Bowden Committee on the Feasibility of Establishing a Faculty of Technology in the University of Singapore (1963)
- St Andrew's Junior College Executive Committee and the Building & Fund-raising sub-committee (1976-1982)
- Management Committee of Tanglin Community Centre (1978-1982)
- PORIM Advisory Committee (1986-1992)
- 7th World Congress of Food Science and Technology, Chairman of Scientific Programme Committee, Singapore (1987)
- Management Committee for the Society for Aid to the Paralysed (now the Society for the Physically Disabled) (1981-1990). For this service, he was awarded the Pingat Bakti Masyarakat (Public Service Medal) by former President Dr Wee Kim Wee in 1987.



Professor Kiang married Lee Peck Wan, whom he met at Raffles College in April 1941. Mrs Kiang was a mathematics teacher in Raffles Girls' School and later became the Principal of Crescent Girls' School. She is fondly remembered by her past students. The couple is blessed with three children, six grandchildren and four great-grand children. As an octogenarian, Professor Kiang continues to engage himself in various activities and in the community, although in a less active scale. He is a popular figure in the NUSS Senior Circle and is often seen in Kent Ridge and Orchard Guild Houses.

By dint of hard work and determination, and endowed with more than a fair share of brilliance, Emeritus Professor Kiang Ai Kim has made his mark in Singapore and in the scientific world. He has given unreservedly of himself in 33 years of devoted service to Raffles College and later to the University. It is appropriate that the Kiang Ai Kim Scholarship Fund be set up in the University to honour him. His very person and extensive contributions will continue to inspire and help many generations of future scholars and leaders of Singapore.

The Scholarships

~ About Kiang Ai Kim Scholarship Fund ~

A fund-raising committee chaired by alumnus the late Mr Wong Ah Long, then CEO of Suntec City Development Pte Ltd, was set up for this Fund. The other members in the fund raising committee include:

Dr Lawrence Chia
Dr Chua Yong Hai
Mrs Kam Kum Wone
Prof Lee Hian Kee
Dr Sidney Syn Yong Cheng

Dr Chin Wee Shong
Mr Tan Siang Chik
Dr John Yip
Prof Andy Hor Tzi Sum

Dr Koh Lip Lin
Dr Sim Keng Yeow
Dr Tan Eng Liang
Mr Wong Chiang Siang

At its launch on November 8, 2000, a total of S\$500,000 had been raised for the Fund. The total gift received at the fund raising campaign was \$608,871.94. It was then decided by the committee that the collected cash gift will be used as an Expendable Fund while the equivalent government matching grant will be kept as an Endowment Fund. Since its establishment, the Kiang Ai Kim Scholarship Fund has fulfilled part of its objectives of encouraging outstanding students to pursue PhD research in Chemistry. We are also glad that many of the Kiang Ai Kim Graduate Scholars have had the opportunity to interact with and be personally inspired by E/P Kiang himself over the period 2003-2009 before his demise.



Official launch of the Fund on the 85th birthday of Kiang Ai Kim in 2000