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HKUST Scientists Made Croucher Senior Research Fellows

Two scientists from the Hong Kong University of Science and Technology (HKUST) have been honored with Croucher Senior Research Fellowships for their distinguished research achievements.

Prof Jing-Song Huang, Professor of Mathematics, and Dr Andrew L Miller, Associate Professor of Biology, were among the eight scholars to receive this year's Croucher Senior Research Fellowship Awards.

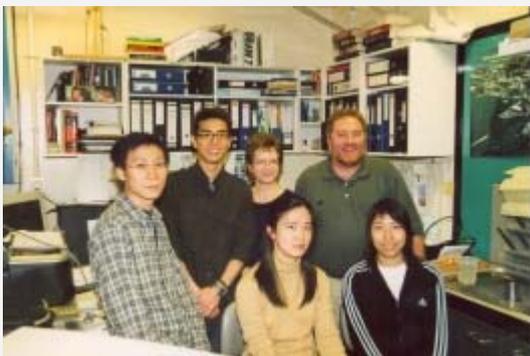
The researchers were presented award certificates by Prof Arthur Li, Secretary for Education and Manpower of the HKSAR, at a ceremony held by the Croucher Foundation today (29 March 2004).

This is the second honor Prof Huang has received for his outstanding research. Last year, he was conferred the 2002 State Natural Science Award (SNSA), second class, for his fundamental contributions to research in mathematics.

Prof Huang's expertise embraces representation theory, Lie theory and harmonic analysis. He has published approximately 20 academic papers in prestigious journals such as the *Annals of Mathematics* and *Journal of the American Mathematical Society*. He received his BSc in Mathematics from Peking University in 1984, and took his PhD in Mathematics from MIT, US, in 1989, studying under Prof D Vogan, the master of Lie group and representation theory. Prior to joining HKUST, Prof Huang worked at the Institute for Advanced Study in Princeton and the University of Utah in Salt Lake City. His research has been supported by the Research Grants Council of Hong Kong, the National Science Foundation, US, and the National Natural Science Foundation of China.



Prof Jing-Song Huang



Dr Miller and his research team

In his research, Dr Miller has focused on the roles played by calcium ions during embryological development. He uses a calcium-sensitive, light-emitting bioluminescent protein, *aequorin*, extracted from jellyfish and reproduced through genetic transfection, to visualize the dynamic changes in calcium levels within the cells of living embryos. He has overcome the technical challenges of investigating embryonic calcium signaling by developing unique Photon Imaging Microscopes to visualize the ultra-low light emissions that arise within living embryos. His research team is currently studying the role of calcium signaling during embryonic kidney formation to explore a possible link between abnormal signaling and Polycystic Kidney Disease in humans.

Dr Miller's research has been supported by the Research Grants Council of Hong Kong, the National Natural Science Foundation of China, the National Institutes of Health and the National Science Foundation of the US, and the

Australian Research Council.

Dr Miller took his BSc and PhD from the University of Dundee, Scotland, in 1982 and 1986, respectively. After graduation, he worked as Postdoctoral Fellow at the University of Aberdeen, Scotland. From 1988 to 1995, he conducted research at the Marine Biological Laboratory in Woods Hole, US, establishing himself as a Principal Investigator in 1992. He joined HKUST in 1995.

The Croucher Senior Research Fellowships scheme was established in 1997 to recognize research achievements made by local scientists. Awardees are released from teaching and administrative duties for a year to concentrate on research.