

**Oration for Professor Chunli Bai**  
**To be held at 11am on Wednesday 17 July 2019**  
**Delivered by Professor Pam Thomas**

Chancellor

Our honorary graduand this morning is a world-leading scientist whose work has been crucial to the development of nanoscience. I am delighted to introduce the President of the Chinese Academy of Sciences: PROFESSOR CHUNLI BAI.

We have all heard of nanoscience, nanomaterials and even “nanobots” and probably wondered, without asking, what is this all about and how will it affect my life? Well Professor Bai has been one of the pioneers in this field.

Nanoscience is the study of structures and materials on an ultra-small scale – on this nanoscale a single human hair is massive because it measured 50,000 nanometres! Nanoscience finds use in medicine, in computers, and in many everyday household products for example sunscreen and house paint impacting on our daily lives. Our own Warwick scientists are very active in this area but Professor Bai has been a true pioneer.

A graduate from Peking University's Department of Chemistry, with an MSc and PhD from the Chinese Academy of Sciences Institute of Chemistry, Professor Bai spent two years as a Visiting Scholar at the California Institute of Technology from 1985 to 1987. On his return to China, he concentrated on scanning tunnelling microscopy and molecular nanotechnology. He built tools that provided scientists with the first means to characterise and manipulate single atoms and molecules and the surfaces of materials on the nanoscale. This was awe-inspiring work, all the more remarkable because in China at that time funding for scientific research was poor and resources were limited.

Professor Bai's work has had global impact. It has earned him over twenty prestigious awards and prizes including the UNESCO Medal for Contributions to the Development of Nanoscience and Nanotechnology. He was the first Chinese Scientist to receive this award. He is the Founding Director of China's National Centre for Nanoscience and Technology and Chief Scientist for the National Steering Committee for Nanoscience and Technology. He has a long

list of scientific publications and is on the international advisory boards of several prestigious scientific journals.

Professor Bai became President of the Chinese Academy of Sciences in 2011 and in 2012 also became President of the World Academy of Sciences for the Advancement of Science in Developing Countries. CAS is China's national scientific 'think tank' and academic governing body, and the world's largest research organisation (around 60,000 researchers working in 114 institutions); under Professor Bai's leadership, its graduate school has been transformed into one of the world's largest graduate schools; Professor Bai is the University's Honorary President. As leader of China's scientific community, Professor Bai has committed himself to nurturing the next generation of Chinese scientists, to building a generation whose work will have global impact.

He has initiated schemes such as the ‘100 Talents Programme’ (which rapidly became the ‘1000 Talents Programme’) that invited top-ranking scientists from across the world to collaborate with China’s scientists in research. His aim is both to boost the quality and application of science in China, and to create further opportunities for collaboration – for he believes firmly in the value of international scientific collaboration and long-term strategic partnerships. Both as Vice-President and President of CAS, he has worked to encourage such collaboration – to shorten the scientific distance between China and foreign countries.

Professor Bai is a visionary leader and an eminent scientist whose work has opened up a new and vitally important area of science in ways that, back in the 1980s, not even the scientists amongst us, could have imagined. He has been elected member or foreign member of academies of science or engineering in some 20 countries and territories, including the UK’s Royal Society, and holds honorary degrees from universities around the world. We at Warwick are delighted to honour him here today.

Chancellor: in the name of the Senate, I present to you for admission to the degree of Doctor of Science, *honoris causa*, PROFESSOR CHUNLI BAI.

652 words