



Fact Sheet:

Launch of the Global Alliance of Technological Universities Nanyang Technological University 7 April 2009

The seven founding universities of the Global Alliance of Technological Universities are:

1. California Institute of Technology (United States of America)
2. Eidgenössische Technische Hochschule Zürich (ETH) (Switzerland)
3. Georgia Institute of Technology (United States of America)
4. Imperial College London (United Kingdom)
5. Indian Institute of Technology Bombay (India)
6. Nanyang Technological University (Singapore)
7. Shanghai Jiao Tong University (People's Republic of China)

The senior representatives from the seven founding universities present at the launch are:

- Dr Stephen L. Mayo, Vice Provost (Research)
California Institute of Technology
- Professor Gerhard Schmitt, Senior Vice President (International Institutional Affairs)
ETH Zürich
- Professor Steven McLaughlin, Vice Provost (International Initiatives)
Georgia Institute of Technology
- Sir Roy M. Anderson, Rector,
Imperial College London
- Professor R.K. Shevgaonkar, Deputy Director (Finance & International Affairs)
Indian Institute of Technology, Bombay
- Dr Su Guaning, President, NTU
Professor Bertil Andersson, Provost, NTU
- Dr Yin Jie, Vice President,
Shanghai Jiaotong University

Background on the founding universities:

California Institute of Technology (Caltech):

The mission of the university is to expand human knowledge and benefit society through research integrated with education. Caltech investigates the most challenging, fundamental problems in science and technology in a singularly collegial, interdisciplinary atmosphere, while educating outstanding students to become creative members of society. Collaboration efforts with Caltech started in 2003, and now NTU and Caltech collaborate in seismology after the setting up of NTU's Earth Observatory of Singapore.

The Swiss Federal Institute of Technology (ETH Zurich):

ETH in Zurich is the study, research and work place of 18,000 people from 80 nations. Teaching mainly focuses on the engineering sciences and architecture, system-oriented sciences, mathematics and natural sciences areas, including research carried out that is highly valued worldwide. It is an internationally oriented institution of higher education; maintaining and developing its top standing in the international competition among top universities is an important task of ETH Zurich.

Georgia Institute of Technology:

The university is one of the top research universities in the United States, distinguished by its commitment to improving the human condition through advanced science and technology. Georgia Tech is consistently ranked in U.S. News & World Report's top ten public universities in the United States. NTU and Georgia Tech have two double degree programmes - The NTU-Georgia Tech Integrated Bachelor of Engineering (Electrical & Electronic Engineering) Programme and the Master of Science (Electrical and Computer Engineering) Programme.

Imperial College London:

Imperial College is consistently rated amongst the world's best universities. It is a science-based institution with a reputation for excellence in teaching and research. Imperial College embodies and delivers world class scholarship, education and research in science, engineering, medicine and business, with particular regard to their application in industry, commerce and healthcare. Imperial College fosters interdisciplinary working internally and collaborates widely externally. NTU and Imperial signed a Memorandum of Understanding (MOU) on 6 April 2009 to launch a joint PhD degree programme. This collaboration is also a milestone for both NTU and Imperial College as this is the first time that they are offering a joint PhD programme with a partner university.

The Indian Institute of Technology, Bombay:

Established in 1958, today the Institute is recognised as one of the centres of academic excellence in the country. Over the years, there has been dynamic progress at IIT Bombay in all academic and research activities, and a parallel improvement in facilities and infrastructure, to keep it on par with the best institutions in the world. Institutes in positions of excellence grow with time. The ideas and ideals on which such institutes are built evolve and change with national aspirations, national perspectives, and trends world-wide.

Nanyang Technological University (NTU):

A research-intensive university ranked among the world's top 100 universities, NTU has four colleges comprising 12 schools in the field of Engineering, Science, Business and Humanities. As Singapore's main science and technology university, NTU makes significant contributions to the nation's renewed drive for research and innovation. Impressed by the vibrant entrepreneurship environment at NTU, the Ewing Marion Kauffman Foundation has chosen NTU to be the first Kauffman campus outside the United States. NTU has a strong and broad international reach covering academic and research partnerships with top institutions in the US, Europe and Asia.

Shanghai Jiao Tong University:

A key university in China, it is jointly run by the Ministry and Shanghai Municipality. It is one of the oldest universities in China. To date, it has established relations with more than 100 renowned universities and colleges in the world as well as connections with many research institutions, corporations and enterprises at home and abroad. The university has formulated a grand blueprint for future development and is determined to make continued efforts to build itself into a first class university in the world. Programmes offered by NTU in collaboration with Shanghai Jiaotong University (SJTU) include the SJTU-MBA Programme and the NTU-SJTU Joint Executive MBA (EMBA) Programme

Profile of Speakers

Dr Stephen L. Mayo, Vice Provost, Research, California Institute of Technology



Dr. Mayo earned his B.S. in Chemistry at the Pennsylvania State University, and received a Ph.D. in Chemistry from Caltech in 1987. He did postdoctoral work as a Miller Fellow in the Chemistry Department at UC Berkeley and a second postdoctoral fellowship at the Biochemistry Dept. at Stanford University. Dr. Mayo's has been a scientific leader in protein design, incorporating interface theory, computation, and experimental approaches.

Stephen L. Mayo is currently Vice Provost (research) and Bren Professor of Biology and Chemistry at Caltech, where he has been a faculty since 1992. He received a B.S. degree in chemistry from Pennsylvania State University and a Ph.D. degree in chemistry from the California Institute of Technology, where he studied biological electron transfer with Harry Gray. He developed a rule-based molecular mechanics force field as a Miller Fellow at the University of California, Berkeley, and studied hydrogen/deuterium-exchange reactions in proteins as a postdoctoral fellow with Robert Baldwin at Stanford University School of Medicine. Dr. Mayo honors include being named a Howard Hughes Medical Institute Investigator, a Rita Allen Foundation Scholar, a David and Lucile Packard Foundation Fellow, and a Searle Scholar. He was awarded the Johnson Foundation Prize for Innovative Research in Structural Biology and is a member of the National Academy of Sciences.

Dr. Mayo is a Professor of Biology and Chemistry at the California Institute of Technology and an Investigator in the Structural Biology section at the Howard Hughes Medical Institute. He received a B.S. degree in chemistry from the Pennsylvania State University, where he developed an interactive macromolecular modeling program with Roy Olofson and a Ph.D. degree in chemistry from the California Institute of Technology, where he studied biological electron transfer with Harry Gray. He developed a rule based molecular mechanics force field as a Miller Fellow at the University of California, Berkeley and studied hydrogen/deuterium exchange reactions in proteins as a postdoctoral fellow with Robert Baldwin at Stanford University School of Medicine. In addition to cofounding Molecular Simulations, Inc. (currently [Accelrys](#)), Dr. Mayo cofounded [Xencor](#) in 1997 and serves on its scientific advisory board. In 2004 Dr. Mayo was elected to the National Academy of Sciences for his pioneering contributions in the field of protein design.

Professor Gerhard Schmitt, Senior Vice President, International Institutional Affairs, ETH, Zurich



Professor Gerhard Schmitt is delegate for international relations. From April 1998 until September 2008 he was Vice President of Planning and Logistics and from 1992 to 1998 full Professor of Architecture and Computer Aided Architectural Design (CAAD) at the ETH Zurich.

Prof. Schmitt, who was born on October 13, 1953 in Mainz, studied architecture at the Technical University in Munich. On a scholarship from the German Academic Exchange Service and the Cusanuswerk, he studied at U.C.L.A. and U.C. Berkeley for two years, obtaining a Master of Architecture in 1981. He earned his doctorate in 1983 under Prof. Friedrich Kurrent at the TU Munich with a dissertation on the topic of energy and architecture in relation to computer simulation as aid to decision-making in the design process. Following a year of research and teaching at the University of Manitoba in Winnipeg, Canada, in 1984 he was named assistant professor, and in 1987 associate professor, of architecture at Carnegie Mellon University in Pittsburgh, Pennsylvania.

A professor at the ETH since 1988, he initiated the development of systematic CAAD teaching and infrastructure. In his research he directs a National Science Foundation project devoted to research artificial design of intelligence and computer aided communication for the creation of intelligent aids to design. In collaboration with industry and practice in the field, programs have been developed for teaching graphics and the simulation of new buildings.

From 1989 to 1996 he directed the information technology commission of the ETH Zurich. After a period as guest professor at Harvard University, he headed the ETH Department of Architecture from 1994-1996. He has been president of the Swiss Computer Graphics Association since 1997.

Professor Steven W McLaughlin, Vice Provost, International Initiatives, Georgia Institute of Technology



Steven W. McLaughlin received the B.S. degree from Northwestern University in 1985, the M.S.E. degree from Princeton University in 1986, and the Ph.D. degree from the University of Michigan in 1992, all in electrical engineering. From 1992-1996 he was on the Electrical Engineering faculty at the Rochester Institute of Technology. He joined the School of Electrical and Computer Engineering at Georgia Tech in September 1996 where he is now the Ken Byers Professor of ECE. He was previously Deputy Director of Georgia Tech Lorraine - the European Campus of the Georgia Institute of Technology - in Metz, France.

He was the first Georgia Tech recipient of the Presidential Early Career Award for Scientists and Engineers (PECASE) where he was cited by President Bill Clinton "for leadership in the development of high-capacity, nonbinary optical recording formats." He also received the National Science Foundation CAREER award for this work. He received (with Dr. David Warland at UC-Davis) the Information Storage Industries Consortium Technical Achievement Award in 2002 for "pioneering work in the development of multilevel optical disk storage technology." From 1999-2003 he was also the Principal Scientist for Calimetrics where this work was commercialized (Calimetrics was acquired by LSI Logic in 2005).

His research interests are in the general area of communications and information theory. He has published more than two hundred papers in journals and conferences and holds twenty-six US patents. He has served as the research and thesis advisor to more than fifty students at the bachelors, masters, doctoral and post-doctoral levels. In 2005, he was President of the IEEE Information Theory Society and he is a Fellow of the IEEE.

Professor Sir Roy M Anderson, Rector, Imperial College London



Sir Roy Anderson FRS, FMedSci became Rector of Imperial College London on 1 July 2008, following a 40-year association with the College. He continues to be Professor of Infectious Disease Epidemiology in the Division of Epidemiology, Public Health and Primary Care.

Sir Roy attended Duncombe School and Hertford Grammar School in Hertfordshire. He gained a first in zoology in 1968 and a PhD in parasitology, both at Imperial College London. After completing his PhD in 1971 he became an IBM biomathematics research fellow at the University of Oxford, before moving to King's College London to become a lecturer in parasitology in 1973.

He returned to Imperial in 1977 as a lecturer and was made professor in 1982 and Head of the Department of Biology in 1984, a position he held until 1993 when he became Head of the Department of Zoology and Linacre Chair of Zoology at the University of Oxford.

In 2000 he returned to Imperial, bringing with him a research team of around 40 people, to set up and lead the Department of Infectious Disease Epidemiology, focused on the epidemiology, population biology, evolution and control of infectious diseases such as AIDS and HIV, SARS, bird flu and pandemic influenza, BSE and vCJD and the epidemic viral infections of livestock including foot and mouth. Between 2004 and 2007 Sir Roy was on secondment from Imperial College to act as Chief Scientific Adviser to the Ministry of Defence.

Sir Roy has also served as Director of the Wellcome Centre for Parasite Infections from 1989 to 1993 (at Imperial) and as Director of the Wellcome Centre for the Epidemiology of Infectious Disease from 1993 to 2000 (at Oxford). He is the author of over 450 scientific articles and has sat on numerous government and international agency committees advising on public health and disease control including the World Health Organisation and UNAIDS. From 1991-2000 he was a Governor of the Wellcome Trust.

He currently chairs the science advisory board of WHO's Neglected Tropical Diseases programme, is a member of the Bill and Melinda Gates Grand Challenges advisory board, and chairs the Schistosomiasis Control Initiative advisory board (SCI) funded by the Gates Foundation. He is a non-executive director of GlaxoSmithKline.

Sir Roy was elected Fellow of the Royal Society in 1986, a Founding Fellow of the Academy of Medical Sciences in 1998, a Foreign Associate Member of the Institute of Medicine at the US National Academy of Sciences in 1999 and he was knighted in the 2006 Queen's Birthday Honours.

R. K. Shevgaonkar, Deputy Director, Finance and External Affairs, Indian Institute of Technology Bombay



Dr. Shevgaonkar became the Deputy Director (Finance and External Affairs), IIT Bombay since 2008. Prior to this, he was the Dean, Resource Mobilization from 2005 to 2008.

He was the Head, Electrical Engineering Department, IIT Bombay from 2003 to 2005 and Head, Centre for Distance Engineering Education Programme (C-DEEP), IIT, Bombay from 2002-2006.

His research interests are Fibre Optic Communication, Photonics, Non-linear fibre optics, Antennas, Image Processing, Radio Astronomy and Wireless Communication.

He has published more than 130 papers published in International Journals and Conferences

Prof Bertil Andersson, Provost, Nanyang Technological University



Bertil Andersson took up the position as Provost of Nanyang Technological University (NTU) in April 2007. He was previously Chief Executive of the European Science Foundation in Strasbourg between 2004 and 2007. Between 1999 and 2003 he was the Rector (President) of Linköping University. He was appointed Professor of Biochemistry at Stockholm University 1986 and at Linköping University 2004. Bertil Andersson has been a member of the boards of several Swedish and international foundations and learned societies.

He is also a research advisor to the Swedish government. He was a member of the Nobel Foundation (2000-2006) and was, from 1989 to 1997, member of the Nobel Committee for Chemistry (Chair 1997). He is currently a member of the Board of Trustees of the Nobel Foundation.

Bertil Andersson is a visiting Professor and a Fellow of Imperial College London. From 2004 until 2007, he was the Vice President of the research advisory board of the European Commission (EURAB).

Appointments held:

- Board member, Swedish Natural Science Research Council, 1991-1998 Board member, Swedish
- Agricultural and Forestry Research Council - chemistry, 1989-1996
- Swedish representative of FEBS, 1988-1990
- Chairman of the Swedish Biochemical Society, 1988-1990
- Chairman of the Swedish National Committee for Biochemistry and Molecular Biology, 1991-1994
- Member of "Forskningsforum" (Forum for Swedish Science), 2001-2003
- Adviser to the Swedish government on new research funding mechanisms, 2003-2004
- Adviser to the Swedish Ministry for Science and Education 2003, 2006-2009
- Board member of Kalmar University College 2004-2007
- Board Member of the Körber Foundation, Hamburg 2005

His research interests are photosynthesis research, biological membranes, protein and membrane purification, light stress in plants. In addition, author of a number of articles devoted to popular sciences and science policy.

Dr Yin Jie, Vice President, Shanghai Jiao Tong University



Dr Yin Jie, born in February, 1964, is now vice president of Shanghai Jiao Tong University, professor and Supervisor of Doctoral Candidates. He received his doctoral degree from Lancaster University, U.K. in 1992, and was named Full Professor in 1997 and Supervisor of Doctoral Candidates in 1998.

Professor Yin was appointed dean of the School of Chemistry & Chemical Technology in January 2002. He focuses his research on the functional polymer materials. In the past five years, Professor Yin has published about 100 papers on domestic and international journals, among which over 70 are SCI-indexed. Professor Yin received Second Prize of Shanghai Science and Technology Development Award in 2000.

He was secretary general of the 1999 National Polymer Science Conference and the 16th Annual Meeting of Polymer Process Society in 2000. Professor Yin's was selected to join Cross-Century Talent Development Program sponsored by the Ministry of Education in 2001. He won the title of Outstanding Performance Award for Young University Teachers in Shanghai in 1995 and 1999 respectively.

Currently Professor Yin is a member of both the Polymer Committee and the Applied Chemistry Committee under the Chinese Chemical Society as well as director of Shanghai Society of Chemistry and Chemical Industry.

Professor Yin holds principal responsibilities in education programs (including undergraduate and graduate programs, continuing education and education for oversea students), and student enrollment.

Panel Chair:



Dr Su Guaning

PhD (Stanford University, USA), MS (Stanford University, USA), MS (California Institute of Technology, USA), BSc (Distinction) (University of Alberta, Canada), PEng, PPA(P), PPA(E), PBM, Chevalier of the Legion of Honour (France), FIES

Dr Su Guaning is President of Nanyang Technological University, Singapore. Since taking office on 1 January 2003, he has raised the university's profile as a research-intensive institution of higher learning, internationally acclaimed for its strengths in science and engineering.

A Singapore President's Scholar and Colombo Plan Scholar, Dr Su obtained his PhD in Electrical Engineering from Stanford University. His MS and BSc in Electrical Engineering were from the California Institute of Technology and University of Alberta, respectively. He also has a Master's degree in Statistics from Stanford University and attended graduate programmes in Business Administration at the University of Singapore and Harvard Business School.

Dr Su began his career in 1972 at Singapore's Ministry of Defence (MINDEF). In 1986, he became Director of the Defence Science Organisation (DSO), and built it into Singapore's largest R&D Institute. In 1997, he transformed DSO into a not-for-profit company, DSO National Laboratories, and became its first CEO. He was Deputy Secretary (Technology) in MINDEF for two years before setting up the Defence Science & Technology Agency and was its founding Chief Executive in 2000 until 2002, when he was appointed to the Presidency of NTU.

A registered Professional Engineer, Dr Su worked on the research and development of radar electronic warfare and communications systems. He is a Fellow and past President of the Institution of Engineers, Singapore, and Founding Fellow of the ASEAN Academy of Engineering and Technology.

Dr Su has received many awards, including the Chevalier of the Legion of Honour conferred by the President of France; the Public Service Medal and two Public Administration Medals conferred by the President of Singapore; the National Science and Technology Medal, Singapore; the Singapore Computer Society Hall of Fame IT Leaders Award; and awards from professional bodies – the IES/IEEE Joint Medal of Excellence and ASEAN Outstanding Engineering Achievement Award.
