

Developing innovative minds: how to foster independent thinking as student numbers rise

Nanyang Executive Centre, Nanyang Technological University, Singapore
Friday 16 June 2017

Speaker biographies

Welcome | Lecture Hall 1

Professor Bertil Andersson, President, Nanyang Technological University, Singapore



A world-renowned Swedish plant biochemist, Professor Bertil Andersson is a pioneer of photosynthesis research who has authored more than 300 papers with over 14,000 citations.

Since becoming President of NTU Singapore in 2011, he has led the university to global distinction. NTU is the world's fastest-rising young university and is ranked first among the world's young universities. It also leads the top Asian universities in normalised research citation impact (Clarivate Analytics' InCites 2014 and 2015). In the 2015 and 2016 QS World University Rankings, NTU is ranked 13th globally.

Before joining NTU as its Provost in 2007, Professor Andersson was Chief Executive of the European Science Foundation in France and Rector of Linköping University in Sweden. His longstanding association with the Nobel Foundation includes being Chairman of the Nobel Committee for Chemistry and a Trustee of the Nobel Foundation. A Fellow of Imperial College London, he was instrumental in Imperial College London jointly establishing a medical school with NTU.

Professor Andersson is a recipient of the Austrian Wilhelm Exner Medal and the Singapore President's Science and Technology Medal. He holds more than 14 honorary doctorates and serves on the boards of numerous international foundations, societies and public agencies.

Dr Joanna Newman, Secretary General, Association of Commonwealth Universities



Dr Joanna Newman is Chief Executive and Secretary General of the Association of Commonwealth Universities (ACU), where she is responsible for fostering and promoting the Association's aims, as defined by its membership, in developing inter-Commonwealth relations in higher education. Established in 1913, the ACU is the world's first and oldest international university network, with more than 500 member institutions in over 50 countries. With three distinct but interconnected areas of work – member services, programmes, and scholarship administration – supported by robust infrastructure and governance arrangements, the ACU delivers value to its members while achieving impact on the world of higher

education and wider society.

Prior to joining the ACU in April 2017, Joanna was Vice-Principal (International) at King's College London. Her previous positions include Director of the UK Higher Education International Unit (now known as Universities UK International) and Head of Higher Education at the British Library. Joanna is a Senior Research Fellow in the Department of History at King's College London and an Honorary Research Fellow at the University of Southampton. She has also taught history at University College London and the University of Warwick.

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Joanna is on the board of the University of London's School of Advanced Study, the board of trustees for The Conversation, and the external advisory board for Vitae. She has been a judge on the Times Higher Education Awards, and regularly speaks on issues relating to higher education and internationalisation at conferences, roundtables, and on international platforms. In 2014, Joanna was awarded an MBE in recognition of her work promoting British higher education internationally.

Session 1 – Nurturing innovative, independent and enquiring minds: how to support students at pre-university and undergraduate level

Chair: Dr Joanna Newman, Secretary General, ACU

In this session panel speakers will share best practice examples and discuss practical ways to help students develop independent, creative and analytical thinking skills.

Professor Kam Chan Hin, Deputy Provost, Education, Nanyang Technological University



Professor Kam Chan Hin is the Deputy Provost (Education) at Nanyang Technological University and Professor of Electrical and Electronic Engineering. He was Associate Provost (Undergraduate Education) from 2011 to 2016 and Dean/Chair of the School of Electrical and Electronic Engineering from 2006 to 2011.

As Deputy Provost (Education), he is responsible for the strategic oversight of all aspects of undergraduate and graduate education, including residential education, student life and professional and continuing education. He coordinates the implementation of various initiatives in education, such as technology-enhanced learning, teaching and learning, and pedagogy. He also oversees academic quality assurance and governance processes as part of his education portfolio.

Prof Kam serves on the Board of Governors of Temasek Polytechnic and is the Chairman of the Temasek Polytechnic Engineering School Advisory Committee. He is also a Member of the National Institute of Education Council, Ministry of Education-Workforce Development Agency (MOE-WDA) Skills Development Council, Singapore Armed Forces-NTU Academy, Singapore Traditional Chinese Medicine (TCM) Practitioners Board, Singapore TCM Practitioners Board Academic Committee and the Singapore Power Engineering Board. For his outstanding contribution to education, he was conferred the Public Administration Medal (Silver) in 2008 by the Singapore Government.

Professor Lisa Ng, Deputy Executive Director of A*STAR Graduate Academy



Lisa graduated in Biochemistry from the University of Manchester Institute of Science and Technology (UMIST) in the United Kingdom in 1995. She then obtained her PhD in Molecular Virology in coronaviruses from the National University of Singapore (NUS) in 2002. After joining the Genome Institute of Singapore (GIS) in 2002 as a post-doctoral fellow, Lisa has made significant scientific contributions to the field where she worked on viral diseases such as hepatitis, SARS and influenza. Her contributions involved academia to public health in developing a framework to deliver broad-range capability for disease preparedness.

She joined SIgN in 2007 and she is currently a Principal Investigator at the Singapore Immunology Network (SIgN), and the research interest of her group focuses on the immune responses of arthritic arboviruses that are epidemic or highly endemic in the tropical region. Her research group became a member of ICRES (Integrated Chikungunya REsearch), a European Union

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Frame-work Program 7 funded project in 2009 and has since published several studies in top tier scientific journals. These studies provided key findings to move the human immunology field forward in controlling the rising number of CHIKV infections.

For her previous work and contributions to SARS, she was voted "*Most Inspiring Woman*" at the *Great Women of Our Time Awards* for Science and Technology in 2005, and was conferred the Junior Chamber International (JCI) "*Ten Outstanding Young Persons of the World*" Singapore 2013 Scientific and/or Technological Development Award. In recognition of her meritorious research and development efforts on Asia's infectious diseases, she was conferred the highly prestigious ASEAN (Association of South-East Asian Nations) "*International Young Scientist and Technologist Award*" in 2008.

Lisa also hold adjunct Professorships with the Department of Biochemistry, Yong Loo Lin School of Medicine at the 'National University of Singapore' (NUS), and at the 'Duke-NUS' Graduate Medical School. In recognition of her mentoring work for graduate students and scientists, she received the A*STAR "*Most Inspiring Mentor Award*" in March 2013.

Professor John Wood CBE FREng, former ACU Secretary General



Professor John Wood CBE FREng is the former Secretary General of the Association of Commonwealth Universities.

John graduated from the University of Sheffield in metallurgy and studied for his PhD at the University of Cambridge (Darwin College). He has held academic posts at the Open University, followed by the University of Nottingham, where he was Dean of Engineering. From 2001-2007, he was seconded from Nottingham to the Council for the Central Laboratory of the Research Councils as Chief Executive, where he was responsible for the Rutherford Appleton and Daresbury Laboratories. John then joined Imperial College London, first as Principal of the Faculty of Engineering, and subsequently as Senior

International Advisor.

John sits on the advisory board of the British Library and on the board of the Joint Information Services Committee (JISC), responsible for the UK academic computing network. He is also chair of the International Network for the Availability of Scientific Publications (INASP).

John was a founder member and chair of the European Strategy Forum for Research Infrastructures, where he was responsible for producing the first European Roadmap. He became the first chair of the European Research Area Board in 2008, and in 2009 produced a long-term strategic vision entitled 'Preparing Europe for a New Renaissance'.

John was elected as a fellow of the Royal Academy of Engineering in 1999. He was made a Commander of the British Empire in 2007 for 'services to science', and in 2010 was made an Officer of the Order of Merit of the Federal Republic of Germany.

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Session 2: Supporting postgraduate, excellence and innovation

Chair: Dr John Kirkland, Deputy Secretary General, ACU

This session will explore how universities can best support and motivate the next generation of academics and researchers, including how to develop the independent and analytical thinking skills needed for postgraduate and post-doctoral research.

Mr William Arlidge, Commonwealth Doctoral Scholar from New Zealand (University of Oxford)



William Arlidge is a DPhil (PhD) student studying conservation science at the University of Oxford. He holds a MSc degree from New Zealand's Victoria University of Wellington (2012), where his research focused on marine viruses associated with coral reefs in Hawaii. William has worked in the public sector for three years, first in the Fisheries Science Group at New Zealand's Ministry for Primary Industries, followed by taking on a Technical Advisor role in the Marine Species & Threats team in New Zealand's Department of Conservation.

He was awarded a Commonwealth PhD Scholarship to undertake his current research. Focusing on investigating novel approaches to reduce the number of protected species such as turtles, marine mammals and birds that are captured in fisheries, William hopes to find innovative approaches to this conservation issue by translating conservation strategies from the terrestrial environment and applying them to the marine realm. Conservation approaches that are being investigated include the application of a hierarchy to guide actions towards neutralising impact on biodiversity, individual vessel level strategies, and incentive-based reduction techniques such as Payment for Ecosystem Services and insurance subsidies to increase compliance with more traditional bycatch mitigation strategies.

Professor Paul Boyle, Vice-Chancellor, University of Leicester, UK



Professor Paul Boyle CBE is President and Vice-Chancellor of the University of Leicester.

Previously, Chief Executive of the Economic and Social Research Council, the UK's largest funding agency for social science research; the International Champion of Research Councils UK, with responsibility for international strategy on behalf of all seven UK research councils; and President of Science Europe, representing over 50 European funding agencies.

Currently Paul chairs the Scottish Science Advisory Council; is an 'impact champion' for the United Nations HeForShe global solidarity movement for gender equality; and is a Council Member and Trustee of the Association of Commonwealth Universities.

Mr Himadri Das, Commonwealth Doctoral Scholar from India (Imperial College London)



Himadri Das is currently investigating the application of Optimal Control Theory in two wheeled hybrid power train concepts as part of his PhD research at Imperial College, London – he was awarded a Commonwealth Scholarship in 2014. He is a Graduate Teaching Assistant at Imperial College and was awarded the best GTA of the Electrical and Electronic Engineering department in 2016.

He hopes that his research findings will be considered in the development of future products at TVS Motor Company, India, which is the 3rd largest two wheeler manufacture in India. Since August 2014, Himadri has been a Lead

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Engineer (Control system development) in the Advanced Engineering Group of TVS Motor Company, having previously been employed as a control system engineer since 2003.

Himadri completed his MSc in Control System from Imperial College, London, between 2006 and 2007 and his Bachelor of Engineering in Electrical Engineering from the National Institute of Technology, Surat, from 1997 to 2001. Himadri has published 8 technical papers and filed 15 patents during his professional career.

He is associated with the voluntary organisation Asha for Education, London chapter, which works towards the impact analysis of various vocational training projects in India. Himadri is a technical reviewer for the Society of Automotive Engineers (SAE) and the International Federation of Automatic Control (IFAC).

Professor Idris A. Rai, Vice-Chancellor, State University of Zanzibar, Tanzania



Professor Rai is Vice-Chancellor of the State University of Zanzibar (SUZA) since 2011. As vice-chancellor, he has actively contributed to developing higher education nationally, regionally, and internationally through serving on various councils and boards, such as The Association of Commonwealth Universities' (ACU) Council, Executive Committee and Quality Assurance Committee of the Inter-university Council of East Africa, Tanzania Commission for Universities and its Accreditation and Audit Committees, and the Board of Trustees of Ubuntu Alliance and its Executive Committee.

He is the Chairman of Tanzania Education and Research Network (TERNET) Council, and the Vice-Chairman of the Committee of Vice Chancellors and Principals in Tanzania (CVCPT). He also serves in various universities' councils including Open University of Tanzania, Nelson Mandela African Institute of Science and Technology, and Sumait University. Previously, he served as a member of Governing Board of African Institute of Capacity Development (AICAD).

Professor Rai has both a BSc (1998) and MSc (2000) in Electrical and Electronics Engineering, awarded respectively by Bogazici and Bilkent Universities in Turkey, and a PhD (2003) in Computer Science and Networking from Telecom ParisTech, France. He did his post-doctorate studies at Lancaster University until 2007, after which he decided to return back to Africa.

Miss Ijugila Thilza, Commonwealth Doctoral Scholar from Nigeria (University of Bristol)



Ijugila Bitrus Thilza is a PhD student of the Department of Clinical Veterinary Medicine, at the University of Bristol. She completed her masters and undergraduate studies at the University of Maiduguri and has a Postgraduate Diploma in Education from Sir Kashim College of Education, Maiduguri.

Following this, she worked as a veterinary field officer with the Federal Ministry of Agriculture and Rural Development in Nigeria. She is a member of the Veterinary Council of Nigeria. Her research interest lies in the area of bovine tuberculosis, its mode of transmission and awareness of the disease in the community.

ACU Council and senior management team

Information about the ACU Council – the ACU's governing body, made up of vice-chancellors from member universities across the Commonwealth – and its senior management team can be found on the [ACU website](#).