



**NUS**  
National University  
of Singapore

NUS ANNUAL REPORT 2006

**NEW**

Unleashing the Global Knowledge Enterprise

**HORIZONS**

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## Vision

Towards a Global Knowledge Enterprise

*Unrelenting pursuit of excellence in education, research and service*

## Mission

Advance knowledge and foster innovation,  
educate students and nurture talent,  
in service of country and society



## CHAIRMAN'S STATEMENT

**A New Horizon** After a century of excellence in education, research and service that fuelled a proud heritage, 2006 marks the dawn of a new horizon for NUS as the University embarks on its second centenary. The most momentous change in this new chapter took place on 1 April 2006 when NUS became autonomous. The University made the transition from a statutory board to a not-for-profit company limited by guarantee. In this first Annual Report of NUS as a corporate entity, I would like to share with you some changes in the University's governance, administrative and financial process as well as long-term objectives that would bring about the new horizon that lies ahead.

**Stewardship** Strong leadership that inspires stakeholders to work towards a common goal is the key to any successful organisation. NUS is no exception. The previous council has laid the foundation for the University to become autonomous. The challenge for the present Board is to build on this legacy. I am confident that members of the new Board, drawn from the public service, private sector and academia will have much to contribute with their diverse experience and expertise. With their combined input, they will steer and guide the University to greater heights.

The year in review saw Mr Tan Yong Soon, Mr Winston Hodge, Professor Martha Piper and Professor Christopher Earley retired from the Council. The remaining council members were then appointed to the new Board of Trustees and were joined by Ms Elim Chew, Mr Lucas Chow, Professor Olaf Kübler, Mr Paul Ma, Mr Philip Ng, Mr Lucien Wong and Dr Tadataka Yamada.

The new Board will continue to work with management to further enhance systems and controls as part of the governance process to support the University's pursuit of excellence and to safeguard the best interest of stakeholders. To support the Board in its oversight and stewardship of the University, seven sub-committees have been set up, namely the Executive Committee, Audit Committee, Nominating Committee, Remuneration Committee, Investment Committee, Campus Planning and Development Committee and Entrepreneurship Committee. Each of this sub-committee is chaired by a member of the Board and has its own terms of reference which sets out its roles and objectives.

**Administrative and Financial Autonomy** Corporatisation will provide the University with greater financial and administrative autonomy to chart its own direction, build on its areas of strength to achieve higher peaks of excellence, raise its standing in the international arena and enhance students' learning experience.



It calls for the Board, working together with management, to take even greater ownership and accountability on key decisions affecting the University and play an even more proactive role in charting its direction. New policies and procedures will have to be introduced and existing ones streamlined to ensure that the University is managed efficiently and effectively, and avoid wasteful duplication of resources. Imperative in all these undertakings is good communications. We look forward to the further strengthening of the communication process between Board and management, faculty members, student body and alumni to ensure that collective views and concerns of the University community are considered thoroughly before any decision is taken that will have significant impact on the University.

With financial autonomy comes ownership and the need for the University to play a more active role in fund raising as well as to seek alternative funding options to support its mission. The Singapore Government remains the principal source of funding for the University. Empowered by financial autonomy to decide on its tuition fee structure, the University, nevertheless, will have to comply with caps on undergraduate tuition fee increases which are prescribed by the Ministry of Education, to ensure continued affordability.



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In the time-honoured tradition of NUS to ensure that no deserving student is denied admission to the University on account of financial difficulty, both the Government and the University are committed to ensure that the University's financial assistance schemes will fully meet the needs of deserving students.

**Accountability** As the Government devolves greater autonomy to the University, we are required to observe a framework of accountability to ensure that Government funding is well utilised and directed towards achieving national objectives. The accountability framework comprises a Policy Agreement and a Performance Agreement signed between the University and the Ministry of Education. The Policy Agreement sets out the strategic direction and guidance for the University and demarcates the boundaries of the University's autonomy, while the Performance Agreement articulates what the University has set out to achieve in the areas of teaching, research, service and organisational development over a five-year period.

In addition, the Ministry of Education has drawn up a Quality Assurance Framework that requires the University to submit annual progress reports and undergo a five-year on-site external validation as part of the ex-post accountability element.



The new Board will continue to work with management to further enhance systems and controls as part of the governance process to support the University's pursuit of excellence and to safeguard the best interest of stakeholders.

**Moving Forward** In the long-term, the University will continue to attract talent from Singapore, the region and beyond so that the quality of students will be comparable to those of leading public universities in the world. At the same time, the University will strive to recruit faculty and staff of international stature who are acknowledged world-wide for their achievements and impact.

While corporatisation brings new changes, NUS remains deeply committed to excel in its core competencies of creating and imparting knowledge with global and entrepreneurial dimensions. The learning process at NUS will become increasingly broad-based, nurturing critical thinking and initiative while balancing academic rigour with personal development. This is to ensure that the NUS graduate is equipped with the agility of problem-solving to take on the driver's seat in a rapidly changing global economy that is increasingly knowledge-based.

The University's research focus will further and substantially intensify with the step up of multi-disciplinary collaborations both on campus and with international partners. The University will build on the positive profile it presently enjoys in international academia for research excellence at the frontier of new knowledge, as in the fields of biomedical sciences, nanotechnology and Asian studies.



A stronger ownership of the University will surface as the University strengthens the spirit of esprit de corps amongst all its stakeholders. In particular, bonds forged by the alumni during campus days will be deepened as the University continues to engage them as their *home away from home*.

In reaching forward to scale new peaks, the University does not lose sight of its service mission to the nation as well as the community at large. As a portal of knowledge, it delivers not only global talent but also serves increasingly as an engine of growth through its innovations and technological breakthroughs.

**Appreciation** As we embark on our new journey, I would like to pause here to record my utmost thanks and appreciation to the many that have through their achievements and goodwill provided us with the launch pad to take off. The success of the University would not have been possible without the support, commitment and dedication of the Board of Trustees, management, faculty members, staff, alumni and benefactors. Side by side and in step with each other we will venture forward.

**WONG NGIT LIONG**  
Chairman, Board of Trustees



## PRESIDENT'S MESSAGE

Our community is journeying into NUS' second century amidst a fast changing world. Today's knowledge-based economies are shaped by movements of talent, ideas and innovation, which flow seamlessly across geographical and jurisdictional boundaries. As the global playing field is increasingly being levelled, the higher education landscape worldwide is also becoming more competitive.

**Thriving in an Ocean of Opportunities** While the fast changing world poses unprecedented challenges for universities, it also opens up an ocean of opportunities. To thrive in the 21st century, we need to move to where the action is and seize opportunities. Status quo is not an option. Responsiveness and agility are critical.

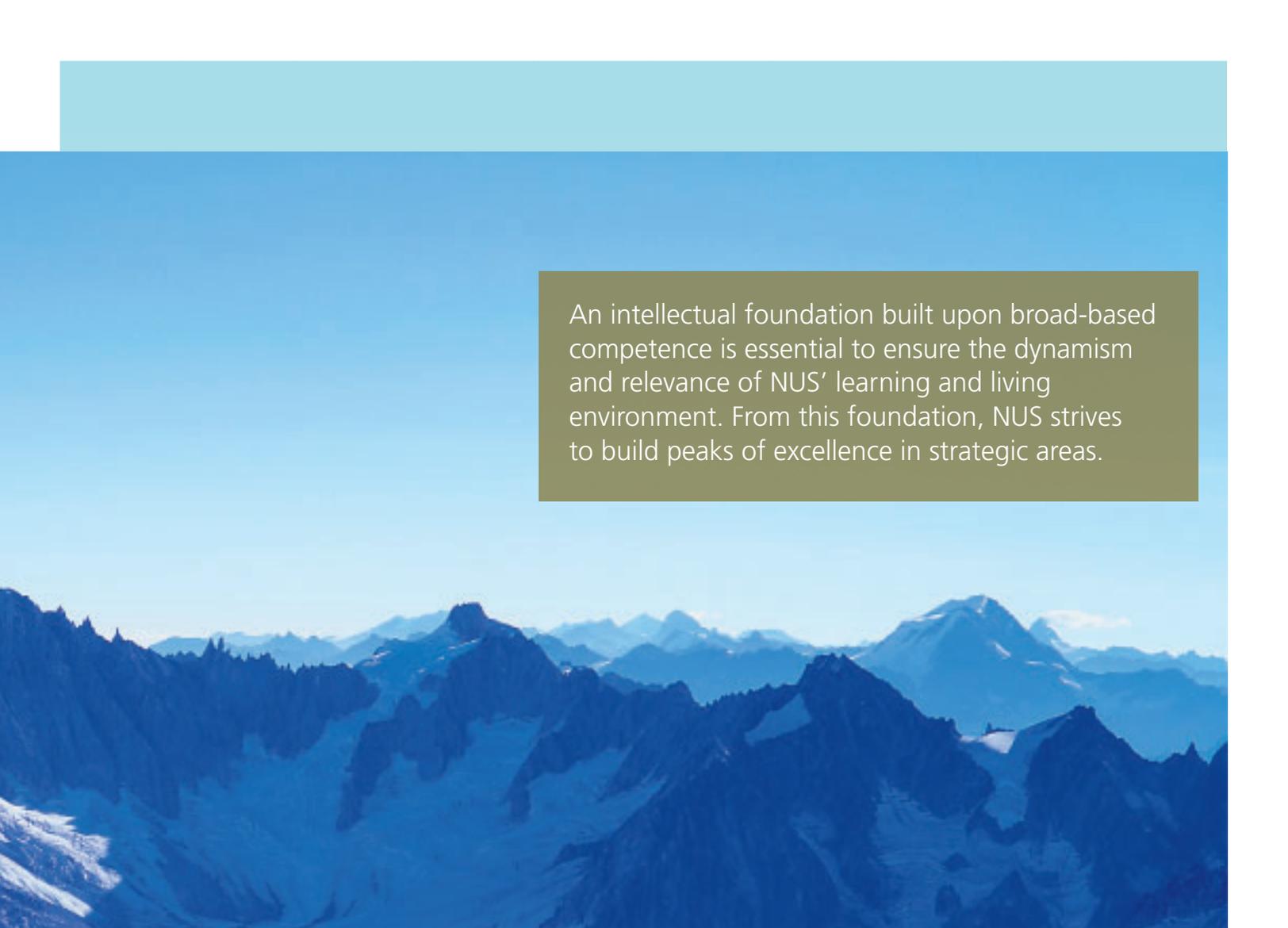
NUS' corporatization on 1 April 2006 as a not-for-profit university company was a watershed event. The increased autonomy and flexibility following corporatization will enable us to respond more nimbly to the fast changing higher education landscape. Corporatization entrusts our community with the responsibility to chart our directions and shape our destiny. Over the past decade or so, NUS has undergone a dramatic transformation from a predominantly teaching institution to a respected research-intensive university, from a governance and management system closely aligned to the civil service to one based on performance and global best practices. With corporatization, the pace of change at NUS is likely to accelerate even further.

# PEAKS OF EXCELLENCE



**Building Peaks of Excellence** An intellectual foundation built upon broad-based competence is essential to ensure the dynamism and relevance of NUS' learning and living environment. From this foundation, NUS strives to build peaks of excellence in strategic areas. One must recognize that peaks of excellence are measured by their impact on society and various fields of human endeavor, including science and technology. The true impact of excellence is in making a difference to the discipline or field, contributing to society's well-being and shaping public opinion and policy. These are not captured by metrics alone.

To build peaks of excellence in the global landscape, NUS must actively seek out additional sources of funding as well as refine our resource allocation model. Drawing on strengths across the University to catalyze research in areas identified as having long-term strategic value for Singapore, we can position NUS strategically to compete for substantial external funding and build research excellence. In tandem, allocation of funding and other resources has to move beyond an egalitarian model. Limited resources may call for tough decisions with a critical eye on best returns and resource optimization. At the same time, we will have some flexibility to take into account less tangible considerations when allocating our resources. Naturally, with funding comes the responsibility to deliver in a manner commensurate with accountability. A shift in focus from research quantity to research quality is inevitable. Utilizing a performance-driven framework for



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research funding will help ensure value-for-money in research activities, as well as focus resources in niche areas for NUS to achieve peaks of research excellence.

Integrating education, research and enterprise at NUS entails efforts to add to, or better still, create value for community and society. This includes technology transfer as well as entrepreneurship that leverages on our core competence in education and research. This is service to country and society at its best.

**Growing Our Forest of Talents** To seize the opportunities of a fast changing world, it is vital for NUS to continue growing our "forest of talents". We need to foster a supportive and nurturing environment for individuals to pursue their aspirations with determination, and to grow and excel. Openness to ideas, opportunities and change is key in creating an environment where the strengths of individuals synergize and multiply manifold, transforming ordinary talents into extraordinary talents, and extraordinary talents into stars.

As the world grows smaller and more culturally complex, knowledge based on science and technology alone is not enough. In a dynamic global economy, tacit knowledge and cross-cultural understanding of values and customs of different societies are key to survival and success. Beyond imparting core knowledge, NUS' learning environment is increasingly directed towards equipping our graduates for the fast changing job market. As Singapore's national university, we enrol a



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broad spectrum of students. We must not lose sight of this public mission. To bring out the best in each student, we need to offer each student an educational experience that fosters a spirit of inquiry and enterprise, as well as nurtures life skills and global perspectives.

Educational programs and curricula that are globally oriented and relevant will enrich our students' experience, and enable them to acquit themselves effectively in diverse cultural contexts. By 2010, NUS will have a university town with residential colleges for undergraduate and graduate students. This exciting initiative will enhance the campus learning and living environment in a global setting. Beyond learning and interacting with peers coming from around the world, students will also be offered curriculum-based teaching as well as entrepreneurial opportunities. Complementing the halls of residence and Prince George's Park Residences, these residential colleges will facilitate shared experiences, promote deep social bonds, as well as nurture global citizens. Even as we nurture students who are able to think global and act global, we are conscious of the need for them to identify closely with NUS and Singapore. To this end, NUS will nurture rootedness – a sense of connectedness with the wider community.

In developing global minds, NUS will continue to leverage on participation in global partnerships and consortia. This will also raise our global standing and enhance our international branding. NUS' leadership roles in global consortia such as the Association of Pacific Rim Universities (APRU,



a consortium of 37 leading research universities along the Pacific Rim), and the 10-member International Alliance of Research Universities are just two examples of strategic alliances that have raised our global profile. NUS has also taken a leading role in establishing the APRU World Institute (AWI). Leveraging the deep and broad talent pools at APRU member universities, AWI aims to attract outstanding researchers from around the world to engage in advanced research on issues of global significance. Engaging partner universities in global alliances in deep and substantive ways can lead to significant impact on educational innovation and research collaboration as well as on organizational practices and culture.

NUS' success as an autonomous university depends much on the University's stakeholders – faculty, staff, students, alumni, and friends – taking ownership and responsibility in charting the University's strategic directions and shaping its destiny. Let us work together towards realizing our shared aspiration for NUS to be a distinguished university in the global arena well before our second centennial.

**PROFESSOR SHIH CHOON FONG**  
President, NUS

## BOARD OF TRUSTEES



**1 Mr WONG Ngit Liong** Chairman of the Board of Trustees, Chairman of Executive Committee, Chairman of Remuneration Committee, and Chairman of Nominating Committee

Mr Wong was the Chairman of the University's Council from August 2004 to March 2006 prior to the corporatisation of the University in April 2006. He is currently chairman and chief executive officer of Venture Corporation Limited, a listed Singapore-based leading Electronics Design, Manufacturing and E-fulfilment Group. He sits on the boards of various public listed and private companies in Singapore and overseas including DBS Bank Ltd and DBS Group Holdings Ltd and Royal Philips Electronics. He is also a member of the Research, Innovation and Enterprise Council. As an entrepreneur, Mr Wong has been accorded a number of accolades including *Asiamoney's* Best Chief Executive Officer (Singapore) Award in 2004, the Ernst & Young Entrepreneur of the Year Award in 2002, and the Singapore Business Times/DHL Worldwide Express Businessman of the Year in 1998. Mr Wong holds a First Class (Honours) degree in Electrical Engineering from the University of Malaya, and a Masters degree in Electronics Engineering from the University of California at Berkeley where he was a Fulbright Scholar. He also holds an MBA degree with distinction from McGill University under the Canadian Commonwealth Fellowship.



**2 Ms CHANG Hwee Nee** Member of the Board of Trustees, Member of Remuneration Committee, and Member of Campus Planning and Development Committee

Ms Chang is currently Deputy Secretary (Policy) of Ministry of Education, Singapore. She is also a member of various public institutions and organisations including the Singapore-MIT Alliance Governing Board; A\*STAR Board; Graduate Medical School Governing Board; Institute of Southeast Asian Studies Board of Trustees; Civil Service College Board of Directors; and Board of Governors of NUS High School of Mathematics and Science. She was awarded The Public Administration Silver Medal (Singapore National Day Award) in 2001. Ms Chang, a President scholar, received her Master of Arts in Economics from the University of Cambridge, UK and Master in Public Administration from the Kennedy School of Government of Harvard University, US.



**3 Mr CHEONG Yip Seng** Member of the Board of Trustees, Member of Audit Committee, and Member of Nominating Committee

Mr Cheong is currently the Editor-in-Chief of the English and Malay Newspapers Division in Singapore Press Holdings Ltd. He is also the chairman of The Straits Times Press Foundation (S) Private Limited and sits on the boards of directors of SBS Transit Ltd, Singapore Press Holdings (Overseas) Limited, The Straits Times Press (1975) Limited and the STP (London) Ltd. Mr Cheong was awarded the ASEAN Award for Information in 1997. He has attended the Executive Programme at Stanford Business School and Advanced Management Programme at Harvard Business School.

**4 Ms Elim CHEW Soo Gim Member of the Board of Trustees, Member of Entrepreneurship Committee, and Member of Investment Committee**

Ms Chew is the founder and the current president of 77<sup>th</sup> Street (S) Pte Ltd. She also chairs or co-chairs several public service, youth and community groups including the SME Sub-Group for the Going the Extra Mile for Service (GEMS) of Workforce Development Agency (WDA); the Programming Committee for \*scape, an iconic youth community space for youthful expressions and involvement by the Ministry of Community Development, Youth and Sports (MCYS) and National Youth Council (NYC); and Culture AC Committee for Action Community for Entrepreneurship (ACE) of Ministry of Trade and Industry. She co-founded Singapore Street Festival, a platform for local talents in the performing arts, visual art forms, fashion, entertainment, sports and lifestyle trends; The Young Entrepreneur Mastery (TYEM), an academy which supports youth entrepreneurship and inculcates an entrepreneurial mindset in out-of-school youths. She is also a founding member of the Social Innovation Park (SIP), a social enterprise incubator which provides a replicable set of integrated services and resources that help create a platform to support social entrepreneurs' business solutions that advocate societal change. Ms Chew has won many accolades including Most Promising Woman Entrepreneur awarded by The Association of Small and Medium Enterprises (ASME) in 2001; Mont Blanc Businesswoman Award in 2002; and Young Woman Achiever Award awarded by *Her World*, and Leadership and Mentoring Award awarded by Research Communications International in 2003. In 2004, 77<sup>th</sup> Street became the first fashion retailer to win the prestigious Singapore Promising Brand Award - Most Distinctive Brand by ASME and *Lianhe Zaobao*.



**5 Mr Lucas CHOW Wing Keung Member of the Board of Trustees, Member of Audit Committee, Member of Remuneration Committee, and Member of Entrepreneurship Committee**

Mr Chow is currently chief executive officer and a board director of MediaCorp Pte Ltd. He chairs the communications advisory group of the National Art Gallery and serves as a consultant to British Telecom's Asia Pacific Advisory Board. He also sits on various other boards of directors and advisory committees including Singapore Tourism Board, Health Promotion Board, SingHealth IT, DesignSingapore Council and Creative Community Singapore partnership. Mr Chow holds an honours degree in Bachelor of Science from the University of Aston, Birmingham, UK.

## BOARD OF TRUSTEES

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**6 Mr Edward Alec D'SILVA** Member of the Board of Trustees, Member of Nominating Committee, Member of Campus Planning and Development Committee, and Member of Entrepreneurship Committee

Mr D'Silva is currently executive director of SAA Architects Pte Ltd. He also chairs The Construction Industry IT Standards Technical Committee, and sits on the board of directors of Singapore Dance Theatre. Mr D'Silva is the vice president of the Eurasian Association, and he also serves as a member on various institutions and advisory committees including the Singapore Institute of Architects; Central CDC; the Appeals Board of Strata Titles Board; the Complaints and Disciplinary Panel of the Accounting and Corporate Regulatory Authority; the Complaints Panel Committee of Singapore Medical Council; and Publication Panel Committee of Media Development Authority. He was also the president of the Singapore Institute of Architects in 1996. Mr D'Silva was awarded the FSB Appreciation Award in 1995, the Feedback Unit Appreciation Award in 2000, and PSB Distinguished Award in 2001. He holds a degree in Bachelor of Architecture from the University of Singapore.

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**7 Mr HSIEH Fu Hua** Member of the Board of Trustees, Chairman of Audit Committee, Member of Executive Committee, and Member of Nominating Committee

Mr Hsieh is currently chief executive officer and executive director of Singapore Exchange Limited. He also sits on the boards of various companies including The Government of Singapore Investment Corporation Pte Ltd and the Singapore Institute of Management Pte Ltd. He holds an honours degree in Bachelor of Business Administration from the University of Singapore.

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**8 Professor Olaf KÜBLER** Member of the Board of Trustees, Member of Remuneration Committee, and Member of Campus Planning and Development Committee

Professor Kübler is currently director of "Society in Science", the "Branco Weiss Fellowship" program dedicated to exploring new avenues in the relationship between science and society, and attached to the ETH Zurich. He was the past president of the ETH Zurich from 1997 to 2005 and its vice president for Research since 1996. He had chaired the Swiss National Science Foundation's National Research Program 23 "Artificial Intelligence and Robotics" from 1987 to 1995. He had also served as ETH Zurich's Dean of the Electrical Engineering Faculty from 1990 to 1992 and as an international representative in a comprehensive evaluation of Electrical Engineering curricula in Sweden. During his presidency, Professor Kübler chaired various scientific advisory boards and evaluation committees in Switzerland and Germany; and he serves on the Senate of the Max Planck Society in Germany as well as on the board of directors of Siemens Switzerland. Professor Kübler holds undergraduate and graduate degrees in theoretical physics from TU Karlsruhe and ETH Zurich, respectively, and obtained his doctorate from the University of Heidelberg. He was guest researcher at major computer vision laboratories in the US and France, and has extensive publications including theoretical physics, structural biology and biological image processing, medical image processing and computer vision.

**9 Mr LEE Tzu-Yang** Member of the Board of Trustees, Member of Executive Committee, Member of Remuneration Committee, and Member of Nominating Committee

Mr Lee is currently chairman of Shell Companies in Singapore, and is concurrently vice president asia pacific of Shell Global Solutions (Singapore) (Pte) Ltd. He sits on the boards of various companies of the Shell group in Singapore and the region, and the boards of several other organisations including Singapore International Chamber of Commerce, National Arts Council, Public Utilities Board, The Institute of Policy Studies, The Esplanade, and the Singapore Arts School. Mr Lee also serves on several advisory committees, including the M.Sc (Environmental Management) Program of the University; the Singapore Green Plan 2012 Co-ordinating Committee; the Water Network; and he is chairman of the Workplace Safety and Health Advisory Committee of the Ministry of Manpower. Mr Lee was awarded the Bintang Bakti Masyarakat (Public Service Star) by the President of the Republic of Singapore in 2005. He holds an honours degree in Bachelor of Science in Economics from the London School of Economics & Political Science.



**10 Mr James LOH Sinn Yuk** Member of the Board of Trustees, Chairman of Investment Committee, Member of Executive Committee, and Member of Entrepreneurship Committee

Mr Loh is currently managing director and principal of JL Capital Pte Ltd. He is one of Asia's most astute and consistent traders with an outstanding 30-year track record in the Asia Pacific and global markets. Mr Loh last served as vice chairman for Barclays Capital Asia. He currently acts as the advisor to Barclays Capital Asia and independent director to the Ricardo Fund Limited and the Ricardo Master Fund Limited – both of which are affiliated to Barclays. He also serves as a member of the Singapore Foreign Exchange Management Committee. Mr Loh holds a Master of Business Administration degree from the University of Chicago, US.



**11 Ms Olivia LUM Ooi Lin** Member of the Board of Trustees, Chairman of Entrepreneurship Committee, and Member of Executive Committee

Ms Lum is currently group chief executive officer and president and founder of Hyflux Ltd. She also holds directorships in various companies of the Hyflux group and is an independent director of Singapore Exchange Ltd. A former Nominated Member of Parliament of Singapore from 2002 to 2004, she holds several positions in the public service including Chinese Development Assistant Council and Health Sciences Authority. She is also the president of the Singapore Water Association (SWA) as well as a member of the Singapore Green Plan 2012 Coordinating Committee; the UNESCAP Business Advisory Council; and the Singapore-Sichuan Trade and Investment Committee (SSTIC). Ms Lum was awarded *Asiamoney's* Corporate Executive of the Year in 2005, and was named Businessman of the Year 2004 at the Singapore Business Awards. She also won the Nikkei Asia Prize for Regional Growth 2006; the Global Female Invent and Innovate (GWIN) 2004 Award and, in 2003, she won the International Management Action Award (IMAA). Ms Lum holds an honours degree in Science from National University of Singapore.



## BOARD OF TRUSTEES



**12 Mr Paul MA Kah Woh** Member of the Board of Trustees, Member of Audit Committee, and Member of Campus Planning and Development Committee

Mr Ma is currently chairman of Mapletree Logistics Trust Management Limited. He also holds directorships in Mapletree Investments Pte Ltd, Golden Harvest Entertainment (Holdings) Limited; Asia General Holdings Limited, The Asia Life Assurance Society Limited; The Asia Insurance Company Limited, Ascott Residence Trust Management Limited, Capitaland China Development Fund Pte Ltd, SMRT Corporation Limited and Hwa Hong Corporation Limited. Mr Ma was a senior partner of KPMG Singapore where he was in charge of the Audit & Risk Advisory Practice and the partner in charge of Risk Management of the firm until his retirement in September 2003. Mr Ma is a Fellow of the Institute of Chartered Accountants in England and Wales and a Member of the Institute of Certified Public Accountants of Singapore.



**13 Mr Chandra Mohan K NAIR** Member of the Board of Trustees, Member of Executive Committee, Member of Audit Committee, and Member of Nominating Committee

Mr Nair, an Advocate & Solicitor, is currently a partner of Messrs Tan Rajah & Cheah. He had served as a Nominated Member of Parliament of Singapore from 2001 to 2004. He was also the president of the Law Society of Singapore, the vice-president of the Singapore Academy of Law and a member of the Board of Legal Education from 1995 to 1997. He was the president of the Roundtable, a civic and non-partisan organisation from 2001 to 2003. He is currently the president of the National University of Singapore Society (the Guild House), a member of the Governing Board of Duke-NUS Graduate Medical School Singapore and a member of the Board of Governors of NUS High School of Mathematics and Science. Mr Nair received the Public Service Medal (PBM) Award in 1997 and the Long Service Award for work in the Criminal Law Advisory Committee (Review) in 1996. He holds an honours degree in Bachelor of Laws from the University of Singapore.



**14 Mr Philip NG Chee Tat** Member of Board of Trustees, Member of Nominating Committee, Member of Campus Planning and Development Committee, and Member of Investment Committee

Mr Ng is currently chief executive officer of Far East Organization and chairman of Orchard Parade Holdings Limited. He is concurrently chairman, managing director and chief executive officer of Yeo Hiap Seng Limited as well as chairman of Yeo Hiap Seng (Malaysia) Berhad. He also holds directorships in the Hong Kong based Sino Group and various private companies in Singapore and overseas. Mr Ng serves as a member in various community groups and statutory boards in Singapore including the Governors Board of The Lee Kuan Yew School of Public Policy and the Board of Governors of The Singapore-China Foundation, and he is the chairman of Sentosa Development Corporation. Mr Ng is currently Singapore's non-resident Ambassador to The Republic of Chile and Argentina. Mr Ng holds a degree in Civil Engineering from King's College, University of London, a Master of Science in Technology and Policy and a Master in City Planning from Massachusetts Institute of Technology.

**15 Lieutenant-General (LG) NG Yat Chung** Member of Board of Trustees, Chairman of Campus Planning and Development Committee, Member of Executive Committee, Member of Audit Committee, and Member of Remuneration Committee

LG Ng is Singapore's current Chief of Defence Force. He is also a director of Singapore Technologies Engineering Ltd and Defence Science and Technology Agency, and is the deputy chairman of SRCC Pte Ltd. LG Ng was awarded the Public Administration Medal (Gold) (Military) award in 1998 for his significant contributions to the Singapore Armed Forces (SAF). LG Ng holds an honours degree in Bachelor of Arts (Engineering) and a Master of Arts (Mathematics) from the University of Cambridge; a Master of Military Art and Science (General Studies) from the US Army Command and General Staff College; and a Master of Business Administration from Stanford University.



**16 Professor SAW Swee Hock** Member of Board of Trustees

Professor Saw is currently a Professorial Fellow at the Institute of Southeast Asian Studies. He first served the University in 1963 as Lecturer in Statistics, returning to be Professor after two years as the founding Professor of Statistics at the University of Hong Kong. He was also the founding chairman of the National Statistical Commission in Singapore. Besides his public service, academic appointments and advisory role to the government, Professor Saw has made significant contributions to public discourse through his membership of some 45 committees, including the United Nations Committee on Salary Adjustments. Professor Saw is a leading expert on population policy and investment management, and has published 40 books, 25 book chapters, 15 monographs, and 90 articles in learned journals on statistics and demography and investments. Professor Saw was conferred the inaugural University's Distinguished Alumni Service award in 2005 in recognition of his dedicated service and generous support to the University over the five decades. He holds an honours degree in Bachelor of Arts in Economics with Statistics and a Masters of Arts from the then University of Malaya in Singapore. He received his doctorate in Statistics from the London School of Economics.



**17 Professor SHIH Choon Fong** President & Vice Chancellor, Member of the Board of Trustees, Member of Executive Committee, Member of Campus Planning and Development Committee, and Member of Investment Committee

Professor Shih is concurrently chairman of the Singapore-MIT Alliance Governing Board as well as an executive committee member of the Economic Development Board. Prof Shih also sits on the boards of directors of Agency for Science, Technology and Research (A\*STAR); the Biomedical Research Council; the Science and Engineering Research Council; National Research Foundation; and the Institute of Policy Studies. He is a founding member of the Singapore International Foundation, and has been a consultant to National Aeronautics Space Administration in US, Oak Ridge National Laboratory in US and the Nuclear Regulatory Commission in US, among others. Prof Shih is also a member of the MIT Corporation Visiting Committee for the Department of Materials Science and Engineering, a Foreign Associate of the US National Academy of Engineering and a Foreign Honorary Member of the American Academy of Arts and Sciences. Professor Shih was awarded the Swedlow Award in 1997 and the George Rankin Irwin Medal by the American Society for Testing and Materials (ASTM) in 1998. He was also awarded the French decoration *Chevalier* in the Order of the *Legion d'Honneur* by the French Republic. Prof Shih received his doctorate from Harvard University, Division of Applied Science.



## BOARD OF TRUSTEES

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**18 Professor TAN Chorh Chuan Deputy President & Provost, Member of the Board of Trustees and Member of Entrepreneurship Committee**

Professor Tan, a renal physician, is concurrently a senior consultant with the Division of Nephrology at National University Hospital (NUH) and a Professor of Medicine with the University. He is also deputy chairman of A\*STAR and A\*STAR's Biomedical Research Council as well as chairman of A\*STAR's Finance and Budget Committee. Professor Tan was awarded the Public Service Star (Singapore National Day Award) in 2003, the Public Administration Gold Medal in 2004, the Albert Schweitzer Gold Medal (awarded by the Polish Academy of Medicine), and the Achievement Medal (awarded by the Singapore Society of Nephrology). In addition, he won the 1996 Singapore Youth Award for his research on the regulation of erythropoietin. Professor Tan is a Fellow of the Royal College of Physicians of Edinburgh and the Royal College of Physicians of London; Fellow of the Royal Australasian College of Physicians; Fellow of the American College of Physicians as well as of the Royal Geographical Society, UK. Professor Tan received his MBBS and Master of Medicine (Internal Medicine) from the National University of Singapore, and MRCP (UK) from Royal College of Physicians, UK. He carried out his research training in the Institute of Molecular Medicine, Oxford, and obtained his doctorate from National University of Singapore. Other Fellowship awards which he has received include the Commonwealth Medical Fellowship of Association of Commonwealth Universities, UK; Wellcome Fellow, University of Oxford, UK; Elected Fellow of Polish Academy of Medicine.

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**19 Mr WONG Ah Long Member of Board Trustees, Member of Audit Committee, Member of Remuneration Committee, and Member of Investment Committee**

Mr Wong is currently chairman of Pacific Star China Pte Ltd, and he also holds directorships in REDAS. Com Private Limited and NTUC Club Investments Pte Ltd. Mr Wong is also chairman of NUS Business School MBA Advisory Board; deputy chairman of the Institute of Southeast Asian Studies' Board of Trustees; president of FIABCI – Singapore Chapter; president of Siddhartha Centre; and member of National Council Against Drug Abuse and Ren Ci Hospital & Medicare Centre. Mr Wong was awarded the Medal of Commendation by the National Trades Union Congress (NTUC) during the May Day Awards in 2002; the Eminent Alumni Award by NUS Business School in 2003; the inaugural Distinguished Alumni Service Award by the University in 2005; and the Distinguished Science Alumni Award by the University in 2005. Mr Wong holds an honours degree in Bachelor of Science in Applied Chemistry and a Masters in Business Administration from University of Singapore.

**20 Mr Lucien WONG Yuen Kuai Member of Board of Trustees, Member of Nominating Committee, and Member of Campus Planning and Development Committee**

Mr Wong, an Advocate & Solicitor, is currently the managing partner of Allen & Gledhill. He also holds directorships in public listed and private companies including Singapore Technologies Engineering Ltd and Cerebos Pacific Limited. He is also a board member of Monetary Authority of Singapore and a trustee of SingHealth Foundation. Mr Wong holds an honours degree in Bachelor of Laws from University of Singapore.



**21 Mdm Halimah bte YACOB Member of Board of Trustees and Member of Remuneration Committee**

Mdm Halimah is a Member of Parliament of Singapore since November 2001 and currently the Assistant Secretary-General of NTUC. She is concurrently the divisional director of the NTUC Administration and Research Unit and a governor of the Ong Teng Cheong Institute of Labour Studies. Mdm Halimah is chairman of Jurong Town Council as well as a member of various public service and community organisations including Housing & Development Board, Nanyang Polytechnic Board of Governors, National Environment Agency, Workforce Development Agency, Jurong Town Corporation and Economic Development Board. Mdm Halimah was awarded the *Berita Harian*/McDonald's Achiever of the Year Award in 2001 and was awarded the Woman of the Year by *Her World* Magazine in 2003. Mdm Halimah is active in international labour relations and is a deputy member of the Governing Body of the International Labour Organisation, a UN Agency. She holds an honours degree in Bachelor of Laws from the University of Singapore and a Master of Laws from the National University of Singapore.



**22 Dr Tadataka YAMADA Member of Board of Trustees**

Dr Yamada is currently president of the Bill & Melinda Gates Foundation's Global Health Program. He leads the foundation's efforts to help and deliver low-cost, life-saving health tools for the developing world, and oversees the global health grant portfolio and Global Health Advocacy. Prior to joining the foundation, Dr Yamada served as chairman of Research and Development as well as a member of the board of directors of GlaxoSmithKline. Prior to that, he was chairman of the Department of Internal Medicine at the University of Michigan Medical School and Physician-in-Chief at the University of Michigan Medical Center. Dr Yamada was also the past president of the American Gastroenterological Association and the Association of American Physicians; a master of the American College of Physicians; and a member of the Institute of Medicine of the National Academy of Science in the United States and the Academy of Medical Sciences in the United Kingdom. Dr Yamada has received numerous awards including the Distinguished Achievement Award in Gastrointestinal Physiology from the American Physiological Society; the Friedenwald Medal from the American Gastroenterological Association; the Distinguished Faculty Achievement Award from the University of Michigan; and the Distinguished Medical Scientist Award from the Medical College of Virginia. Dr Yamada holds a Bachelor of Arts degree in History from Stanford University and obtained his M.D. from New York University School of Medicine.



The corporatisation of NUS (the "University") in April 2006 from a statutory board to a not-for-profit company limited by guarantee formed under the Companies Act (Cap. 50) of Singapore marked a new phase in its development. While corporatisation gives the University greater administrative and financial autonomy, it also calls for greater ownership and accountability, and a higher standard of corporate governance to safeguard the best interest of its stakeholders.

Creating and achieving a high standard of corporate governance structure with clear internal control systems, reporting and responsibility lines and procedures are essential for the University as it moves towards its vision to be the leading university in the global arena.

**BOARD OF TRUSTEES** At the helm in the decision making process of the University is the Board of Trustees (the "Board") with 22 members appointed by the Minister for Education (the "Minister"). The Board is headed by the Chairman, Mr Wong Ngit Liong and comprises eminent and reputable academics, entrepreneurs, business leaders and professionals drawn from the public and private sectors. Each member is appointed on the strength of his/her calibre, experience, stature and ability to contribute to the effective decision making of the University, and brings with him/her valuable relationships and networking which are essential and strategic to the growth of the University. The profiles of the members are set out on pages 14 to 21 of this Annual Report.

All members of the Board, including the Chairman are non-executive with the exception of Professor Shih Choon Fong and Professor Tan Chorh Chuan, who are the President and Deputy President & Provost respectively of the University.

The Board is responsible for setting the strategic direction of the University, ensuring that it acts in the furtherance of its objectives in education and research, and that the funds and assets of the University are properly accounted for and safeguarded. The Board also approves the annual budget and supplemental budgets, and the annual audited financial statements of the University, amongst others.

In its oversight of the University, detailed consideration of the various issues and decision making process, the Board is supported by seven sub-committees, namely the Executive Committee (the "ExCo"), Audit Committee (the "AC"), Nominating Committee (the "NC"), Remuneration Committee (the "RC"), Investment Committee (the "IVC"), Campus Planning and Development Committee (the "CPDC"), and Entrepreneurship Committee (the "EC"). Each sub-committee is governed and regulated by its own terms of reference which sets out the scope of its duties and responsibilities, rules and regulations, and procedures governing the manner in which the sub-committee is to operate and how decisions are to be taken. The membership of most of the sub-committees comprises entirely members of the Board. However, in certain sub-committees, non-Board members are co-opted to provide expertise and add new perspectives to their activities.

The Chairman is responsible for effective functioning and decision making process of the Board, while the day-to-day management functions of the University are delegated to the President, supported by three Deputy Presidents.

The Board meets on a quarterly basis, and as and when required. To facilitate the convening of urgent adhoc Board meetings and to facilitate the participation by members of the Board or the sub-committees who are abroad, the Articles of Association of the University provides for the Board's or sub-committees' meetings to be held via conference telephone and videoconferencing. To further supplement the decision making process of the Board and the sub-committees, decisions are also obtained by way of circular resolutions in writing in lieu of physical meetings.

**EXECUTIVE COMMITTEE** The ExCo is chaired by Mr Wong Ngit Liong and comprises seven other members, namely Mr Hsieh Fu Hua, Mr Lee Tzu-Yang, Mr James Loh Sinn Yuk, Ms Olivia Lum Ooi Lin, LG Ng Yat Chung, Mr Chandra Mohan K Nair and Professor Shih Choon Fong.

The objectives of the ExCo are to assist the Board in its stewardship and oversight of the University, and to exercise such powers and/or functions on behalf of the Board on matters that have been specifically or from time to time delegated to it by the Board or referred to by the sub-committees. The ExCo is also tasked to, *inter alia*, oversee the financial affairs of the University, review the annual budget and supplemental budgets prior to submission to the Board, and also to approve the use of the University's funds. In addition, the ExCo also approves the remuneration, terms and conditions of appointment and re-appointment and other forms of compensation and benefits of certain senior management staff of the University. The ExCo also decides on policies relating to donations and any fund raising activities of the University.

**AUDIT COMMITTEE** The AC, chaired by Mr Hsieh Fu Hua, comprises a total of seven other members namely, Mr Cheong Yip Seng, Mr Lucas Chow Wing Keung, Mr Paul Ma Kah Woh, Mr Chandra Mohan K Nair, LG Ng Yat Chung, Mr Wong Ah Long and Mr Goh Yew Lin.

The AC assists the Board in reviewing the adequacy and effectiveness of the internal control systems of the University (including financial, operational, compliance control, and management of financial risk), the financial reporting process, and the internal and external audit process. The AC recommends to the Board the appointment, re-appointment or removal of the external auditors subject to the approval of the Comptroller of Income Tax, and determines their remuneration, terms of engagement and independence. In addition, the AC is also tasked to review the annual financial statements of the University prior to submission to the Board.

The AC is given explicit authority to investigate any matter within its terms of reference, full access to and co-operation by management, full discretion to invite any member of the Board or executive officer to attend its meeting, and is provided with reasonable resources to enable it to discharge its functions properly, including the availability of legal and other professional advice. The AC also meets with the internal and external auditors without the presence of management at least once annually.

**NOMINATING COMMITTEE** The NC has a total of eight members, and is chaired by Mr Wong Ngit Liong. The membership comprises Mr Cheong Yip Seng, Mr Edward Alec D'Silva, Mr Hsieh Fu Hua, Mr Lee Tzu-Yang, Mr Chandra Mohan K Nair, Mr Philip Ng Chee Tat and Mr Lucien Wong Yuen Kuai.

The NC is entrusted to develop and maintain a formal and transparent framework for the nominations and re-nominations of members of the Board. The NC is responsible for formally assessing the effectiveness of the Board as a whole and the contributions and performance of each individual member. It is also responsible for determining a suitable size of the Board which facilitates effective decision making and in identifying the skills mix, qualities and experiences that the Board requires to function competently and efficiently. The NC will also undertake a periodic review of the independence of each individual Board member to ensure that the decision making process of the Board will not be affected by any lack of independence.

**REMUNERATION COMMITTEE** The RC comprises a total of eight members. Chaired by Mr Wong Ngit Liong, the other members of the RC include Ms Chang Hwee Nee, Mr Lucas Chow Wing Keung, Mr Lee Tzu-Yang, LG Ng Yat Chung, Professor Olaf Kübler, Mr Wong Ah Long and Madam Halimah Yacob.

The RC is responsible for providing independent advice to the Board on matters relating to executive remuneration. It is also responsible for making recommendations to the Board on the appointments of President and Provost. The RC also approves the appointment and re-appointment of other senior management and academic staff (including appointment to full professorship), and have oversight of their compensation.

**INVESTMENT COMMITTEE** The IVC is chaired by Mr James Loh Sinn Yuk and has a total of eight other members namely, Ms Elim Chew Soo Gim, Mr Philip Ng Chee Tat, Professor Shih Choon Fong, Mr Wong Ah Long, Dr Chia Tai Tee, Mr Michael Lien, Dr Ong Hung Guan and Ms Amy Yip.

The main objective of the IVC is to assist the ExCo in managing the University's funds in order to generate a consistent stream of income to support the activities of the University as a public institution of higher learning.

The IVC sets out the long term investment objectives for the investment of the funds and ensures that the overall level of risk taken commensurate with the returns from the funds. It also develops an asset allocation mix and investment strategy designed to achieve the investment goals and objectives of the University, and policies and procedures to safeguard the funds. The IVC is also responsible for reviewing and monitoring the University's investment policies, controls and processes, and any violation of investment policy and to undertake such appropriate remedial or corrective actions. The IVC has oversight of the selection, appointment and termination of investment consultants, fund managers and advisors and will undertake periodic review of the investment returns against appropriate performance benchmarks and conduct regular review of the progress of the funds.

**CAMPUS PLANNING AND DEVELOPMENT COMMITTEE** The CPDC comprises a total of eight members. Chaired by LG Ng Yat Chung, the other members of the CPDC include Ms Chang Hwee Nee, Mr Edward Alec D'Silva, Professor Olaf Kübler, Mr Paul Ma Kah Woh, Mr Philip Ng Chee Tat, Professor Shih Choon Fong and Mr Lucien Wong Yuen Kuai.

The CPDC has oversight of the strategic planning and development of the University's land and buildings. It also advises the Board on policies relating to the planning and development of physical infrastructure of the University and undertakes periodic review on the implementation of the Campus Master Plan (the "Master Plan") to ensure that the Master Plan supports the short and long term strategic directions of the University. The CPDC is also responsible for making recommendations to the Board on the annual capital budget and providing advice on the development options of the University's properties and procurement of consultants/contractors.

**ENTREPRENEURSHIP COMMITTEE** The EC is chaired by Ms Olivia Lum Ooi Lin and comprises a total of eight other members namely Ms Elim Chew Soo Gim, Mr Lucas Chow Wing Keung, Mr Edward Alec D'Silva, Mr James Loh Sinn Yuk, Professor Tan Chorh Chuan, Mr Siew Wing Keong, Mr Tay Wui Kian and Mr Kenny Yap.

The main objective of the EC is to oversee the strategic directions, approve strategies and endorse policies to foster entrepreneurship and industry involvement in the University. It is also responsible for providing broad strategic directions for the promotion of entrepreneurial activities and university/industry interactions. The EC also approves strategies, policies, work plans and key performance indicators of the University's enterprise cluster and also provides industry perspective to its strategies and policies, and reviews and approves its governance policies and procedures.

## CALENDAR OF EVENTS



### JULY – DECEMBER 2005

**1** Presidents from the Association of American Universities (AAU) and the Association of Pacific Rim Universities (APRU) came together for the first time at the NUS-hosted AAU-APRU Presidents Roundtable. They were joined by university leaders from the Association of Indian Universities (AIU). The Roundtable was followed by the APRU Presidents 9th Annual Meeting. **2 – 4** In celebrating 100 years of excellence, NUS paid tribute to some of its most distinguished alumni for their outstanding contributions in the service of their country. The Eminent Alumni Awards were presented to Minister Mentor Mr Lee Kuan Yew, Senior Minister Mr Goh Chok Tong and former Deputy Prime Minister, Dr Tony Tan. **5** Students, staff and alumni put their best foot forward participating in the Centennial Challenge. The ultimate challenge was undertaken by NUS alumnus, Dr William Tan, who cycled a record-breaking 100-kilometre in his wheelchair to raise funds for a Professorship in Paediatric Oncology. **6** Professor Steven Chu, who won the 1997 Nobel Prize in Physics, gave the first public lecture by 6 Nobel Laureates that were held at NUS. The event was organised to celebrate the University's centennial year. **7** Professor Ariff Bongso (Department of Obstetrics & Gynaecology) received the ASEAN Outstanding Scientist Award for his contributions to the development and application of science and technology in the region. Professor Bongso achieved a world first when he isolated stem cell lines from frozen human embryos. **8 – 9** The blueprint of a new university town promoting seamless learning and living was unveiled by NUS President, Professor Shih Choon Fong, in his State-of-the-University Address. The town will centre around 8 residential colleges and graduate housing supported by a host of lifestyle facilities. Each college will have a cosmopolitan makeup of residents integrating freshmen and seniors from different disciplines. **10** In line with NUS' goal to promote global entrepreneurship, NUS opened its first overseas centre in China. NUS@Shanghai will provide Singapore and NUS faculties, departments and research centres with smooth entry into mainland China by offering them operationally-ready office facilities as well as through the promotion of Singapore-Sino partnerships.



**11** NUS' reputation as a preferred partner of industry received a boost with the opening of the Kikkoman-NUS Collaborative R&D Laboratory at the Department of Chemistry. The facility will conduct both basic and applied research as well as develop new food products. **12** Two students from the Industrial Design Programme earned the rare accolade of being the first Asians to win the prestigious Design Lab Award given out by the Electrolux Group. Mr Gabriel Tan and Ms Wendy Chua won the judges' approval for the most outstanding appliance for the home of 2020. Their triumph was one of many garnered in the year by students of the Programme that included winning several prestigious Red Dot Awards and the iF Concept Award. **13** The 40-member NUS Choir, participating in the Mixed Voices (Advanced) and Folklore categories, bagged Gold Awards at the *International Choral Competition 2005* held in Shah Alam, Malaysia. They also took top honours by winning the Special Award for Best Interpretation of Set Piece. **14** NUS signed an MOU with the Lloyd's Register and Maritime & Port Authority of Singapore (MPA) to set up two professorships. The Lloyd's Register Professorship and the MPA Maritime Technology Professorship will enhance Singapore's R&D capabilities in maritime technology, in particular in offshore research and technology. The Professorships are being established at the Centre for Offshore Research & Engineering (CORE), which is jointly set up by NUS and the Economic Development Board (EDB). **15** The School of Design and Environment was given the thumbs up by UNESCO which awarded it the Inaugural Heritage Awards Jury Commendation for Innovation. The School was lauded for its deft interpretation of traditional architectural concepts within the context of modern building practice as demonstrated in its building of the Yuhu Primary School and Community Centre in Lijiang, China.

## CALENDAR OF EVENTS



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### JANUARY – JUNE 2006

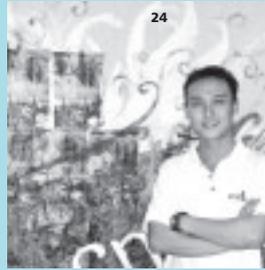
**16** NUS hosted the first Presidents' Meeting of the International Alliance of Research Universities (IARU) which officially launched an international platform for research and education that transcends disciplinary, cultural and geographical boundaries. The 10 participating members are some of the world's top research-intensive universities, namely the Australian National University, ETH Zurich, Peking University, University of California (Berkeley), University of Cambridge, University of Copenhagen, University of Oxford, University of Tokyo, Yale University and NUS. Areas of collaboration the partners would be looking into are research into migration, energy, water management, the environment and aging. **17** *Radio Pulze*, the campus radio station, came on air on Valentine's Day. A student initiative, it is run by the NUS Students DeeJay Group with support from the Centre for Instructional Technology. It broadcasts live on weekdays from 12 noon to 2 pm, followed by non-stop music until 6 pm. **18** NUS together with the Council for the Advancement and Support for Education (CASE) jointly hosted the first CASE conference to be held in Asia. With the very topical theme of *Expanding Horizons in Educational Advancement*, the event attracted some 450 senior personnel from 30 countries and over 170 educational institutions. **19** The first NUS Arts Festival took off on the upbeat offering 100 events spread over seven weekends. The line-up included performances and workshops featuring music, drama, dance, film and the visual arts. The Festival attracted a 30,000-strong audience. **20** NUS signed an agreement with the Indian Institute of Science (IISc) that formally established the NUS College in Bangalore. The new college will be the fifth set up by the University to immerse students in the culture of some of the world's most dynamic entrepreneurial hubs. Students at the Bangalore college, which is the first for graduate students, will work full-time in start-ups at Bangalore's IT corridor while studying part time at IISc. The MOU signing was witnessed by the President of India, Dr APJ Abdul Kalam. **21** The Guinness World Record Office officially gave its endorsement to the massive tee-off of golfers organised by NUS and NUSS (National University of Singapore Society) as a world record. More than 80 per cent of the 17,000 golfers who teed off simultaneously from 13 clubs all over the island, met the criteria set down by the Office for a one day event. Participants of the milestone event included the NUS community of alumni, students and staff and the wider golfing public.



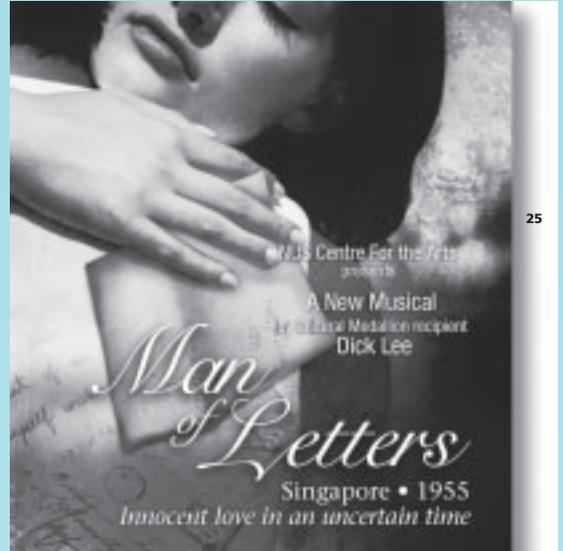
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**22** NUS President, Professor Shih Choon Foong was elected into the American Academy of Arts and Sciences (AAAS) as a Foreign Honorary Member. Prof Shih, a highly cited researcher (*Institute of Scientific Information 2005*) for his work on nonlinear fracture mechanics and the development of innovative computational methods for studying crack propagation, is the only Foreign Honorary Member to be inducted into the Engineering Sciences and Technologies category this year. **23** NUS law students took top honours at the *4th Annual International Inter-University Intellectual Property Mooting Competition*, held at Oriel College, Oxford University. It was a double feat for the team, emerging as winners at their first attempt at the highly prestigious competition. **24** NUS student, Reuben Ng, achieved a world first by being the first undergraduate to receive the Seisoh Sukemune/ Bruce Bain Encouragement of Early Career Research Award. The award, presented by the International Council of Psychologists, is usually given out to PhD academics with at least five years of research experience. Reuben based his winning research paper on an internship with the Singapore Police Force that he took up while fulfilling an academic requirement under the University Scholars Programme. **25** The musical *Man of Letters* opened at the University Culture Centre to sold out performances. Commissioned as the University's centennial gift to all its stakeholders and the public, it is a nostalgic time-piece set in the old Bukit Timah campus of the '50s. **26** NUS together with Fudan University and Korean University celebrated their common centennial anniversaries with a collaborative agreement. The S3 (Singapore, Shanghai and Seoul) University Alliance aims to offer programmes that will achieve the distinction of being the best in Asia within 5 years and amongst the top five in the world in the next 10 years. Under the agreement, Korea University will focus on *Asian MBA programmes*, with NUS driving the *Asian Financial Markets* initiatives and Fudan University leading the *Strategic Areas in Bioscience of particular importance to Asia*. The signing took place at the Tri-University Colloquium co-hosted by the three universities in Seoul. **27 – 28** NUS honoured the legacies of the late Tan Sri Dr Tan Chin Tuan and Tan Sri Dr Lee Kong Chian in a dedication ceremony at University Hall. Singapore's President and NUS Chancellor Mr S R Nathan did the honours by unveiling foundation stones raised in their memory. The two wings of the Hall have been named after the two philanthropists who through their foundations have donated a total of \$59 million to the University in 2005.

## SENIOR MANAGEMENT



**1 Professor SHIH Choon Fong**  
President

**2 Professor TAN Chorh Chuan**  
Deputy President and Provost

**3 Professor Barry HALLIWELL**  
Deputy President  
(Research and Technology)

**4 Mr Joseph P MULLINIX**  
Deputy President  
(Administration)

**5 Dr Lily CHAN**  
Chief Executive Officer  
NUS Enterprise

**6 Professor YONG Kwet Yew**  
Vice President  
(Campus Infrastructure)

**7 Professor John Eu-Li WONG**  
Vice President  
(Research/Life Sciences)

**8 Dr Lawrence LOH**  
Vice President  
(University and Global Relations)

**9 Mr Daniel CHO Kwong Chow**  
Vice President  
(Human Resources)

**10 Professor LAI Choy Heng**  
Vice Provost  
(Academic Personnel)

**11 Professor Lily KONG**  
Vice Provost  
(Education)

## ACADEMIC YEAR IN REVIEW

(covering 1 July 2005 – 30 June 2006)

**SINGAPORE-BASED, GLOBAL TALENT** *Review of education* The University's performance in the review year is best measured by its global standing. In rankings published by the *Times Higher Education Supplement (2005)*, NUS was placed 22nd amongst the world's top universities, 9th amongst the top technology universities, 13th amongst the top social science universities and 15th amongst the top biomedicine universities.

The global benchmark continued to be upheld by the University for the competitive edge it brings to an educational landscape that is becoming increasingly global. As a platform for the University to realise its mission, it is translated in the relentless pursuit of excellence that grooms talent for the global knowledge-based economy and creates new knowledge of international impact.

The two thrusts are achieved by the university community working synergistically together in an open environment that cuts across all boundaries, whether disciplinary, cultural or geographical.

In transcending disciplines, the University leverages on its strength as a comprehensive university to offer double-degree programmes that combine different but complementary disciplines. This is in keeping with its definition of quality education as one that enables students to maximise their potential with wide-ranging opportunities. The first double-degree programme was introduced in the year, combining economics with law. Encouraged by the response, NUS announced new offerings in the combinations of business administration with law, engineering with economics, and engineering with business administration.

In another interdisciplinary mode, the Faculties of Engineering and Science joined forces to administer a new Engineering Science Programme to nurture a new breed of engineer-scientists. In a leap that bridged two disparate disciplines, the Faculty of Arts and Social Sciences and the Yong Loo Lin School of Medicine announced their joint establishment of a Master of Science (Speech and Language Pathology) programme. The introduction of an MBA programme with a cross-disciplinary focus made NUS the first university in Asia to offer an MBA with specialisation in real estate.



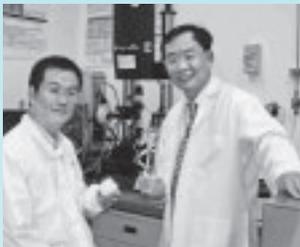
## ACADEMIC YEAR IN REVIEW



Global linkages to provide NUS students with the best teaching resources and a global outlook continued to grow. This year, the thrust was strongest in the development of graduate programmes with international partners. Tie ups with the Indian Institute of Technology Bombay, as well as the Australian National University brought on stream joint doctoral programmes in engineering. A partnership forged with New York University's School of Law introduced a dual Master of Laws degree programme.

Opportunities for students to take up study stints in overseas campuses continued to grow. New exchange agreements signed in the year brought to a total 211 active exchange programmes that will enable students to gain insights and sensitivities which will serve them well in an increasingly interconnected world. NUS' prestigious University Scholars Programme took to engaging the equally prestigious Yuanpei Programme of Peking University in an exchange format that will equip participants with strong bicultural capabilities by immersing them in the history and society of the host country.

The year saw an impetus in the growth of summer schools as a form of exchange. Joint summer programmes were taught with Yale University, University of New South Wales, University of Toronto, Texas A&M University and University of California, Los Angeles, in which undergraduates from both universities learn alongside each other.



**NUS EFFORT, GLOBAL IMPACT** *Review of research* Both in output and impact, the University's research capabilities were vibrant and robust in the year. More than 1,600 papers were published in international journals. A milestone was achieved with the launch of the first *Asian Journal of Comparative Law* spearheaded by the University.

A total of 700 new research projects took off in the review year. In generating new knowledge, NUS steered the same path as its educational dimension, pursuing global standards in terms of achievements as well as in collaborative teamwork. The University crossed over from academia to engage in more than 150 collaborations with partners in industry, the public sector, international consortia, and overseas and national research institutes.



Partnerships like the Hyflux-NUS collaboration on membrane and materials technology, and the NOL (Neptune Orient Lines) Fellowship on cargo logistics leverage on the niche expertise of industry and academia to strengthen R&D in areas strategic to Singapore's development.

The international reach of NUS research is reflected in the many centres that were established with global partners in the year. They included the Centre of Excellence for Water Knowledge, a collaboration between NUS, Singapore's Public Utilities Board and Netherlands' WL I Delft Hydraulics. The Berkeley-NUS Risk Management Institute is a tie-up with Haas School of Business, University of California, Berkeley, and supported by the Monetary Authority of Singapore.

The main thrust of NUS research excellence continued to be built at the intersection of disciplines, linking biomedical, behavioural engineering, social and managerial sciences. The Bioinformatics Programme set up in the year, synergises capabilities and resources that stretch across the Schools of Computing and Medicine and the Faculties of Engineering and Science to conduct research in bioinformatics technologies and their applications to improve human life. The Asian Marriage Research Network was set up by the Asia Research Institute with an international consortium of multi-disciplinary researchers to undertake research on issues of marriage in the Asia-Pacific region.

The positioning of NUS' research focus on new frontiers of knowledge saw significant breakthroughs in the areas of tissue engineering, biotechnology and nanotechnology. NUS researchers established themselves in the year as one of the first to use mesenchymal stem cells to repair cartilage defects.

Safer and improved culture methods of growing the equivalent of human conjunctival tissues were developed at the University's labs by harvesting stem cells from patients and expanding them *ex vivo* to form large sheets of tissues for ocular surface transplantation. This development portends well for the transplantation and treatment of cornea and ocular surface.

At the nanotechnology front, a breakthrough was made in the use of electrically charged jets to produce polymeric nanofibres which are light in weight and can neutralise chemical agents. The applications of this unique material are vast and manifold. They can be used as protective gear for the defence industry, to create scaffolds for growing stem cells in tissue engineering and as membranes for water and air purification.



**BREAKTHROUGHS ACHIEVED BY NUS RESEARCHERS IN THE REVIEW YEAR** From the research labs of NUS have emerged in the year breakthroughs and new discoveries that are likely to affect the thinking and practices of conventional wisdom. Below are some examples drawn from the broad scope of NUS' research portfolio:



- Discovery that foetal stem cells are able to cross the blood-brain barrier into the mother's brain during pregnancy and differentiate into different neural cells highlighted new possibilities in non-invasive cell-based therapies for neurodegenerative diseases. The research is a collaborative effort between NUS, Singapore General Hospital and the Institute of Molecular and Cell Biology. Its findings were published in *Stem Cells* (August 2005).



- Identification and characterisation of Juxtalin, a novel protein of the nervous system, that could pave the way for developing more effective ways of treating neurological disorders such as multiple sclerosis and schizophrenia. The findings were published in the *Proceedings of the National Academy of Sciences of the USA* (July 2005).

- Discovery of the world's smallest vertebrate which presents an interesting model for the study of its genome for acid tolerance, resistance to decalcification and its position in the phylogenetic scale.

- Discovering that the gene RUNX3 is not functioning in about 80 per cent of gastric cancer. The finding has important implications in screening drugs for therapeutic purposes and was published in *Cancer Research* (September 2005).

- Establishing a class of new schemes by using quantum physics to secure encryption more systematically and efficiently.

- Developing electromagnetic meta-materials (EM3) with properties not found in naturally occurring materials. This new artificial material is expected to provide new functionalities and enhancements to future optical and optoelectronics devices.

**CAMPUS INSPIRED, GLOBAL BRAND** *Review of entrepreneurship* NUS contributes to a better tomorrow when the new technologies and innovations developed through its research are transplanted into the real world as applications that can be used by communities everywhere.

To facilitate the movement from laboratory to boardroom, the University continues to actively promote a culture of entrepreneurship in its community of students, faculty and alumni, through education, research, funding and

incubation of start-ups. Enrolment in entrepreneurship-related courses jumped 116 per cent over a one-year period from the last academic year 2004-2005. At NUS Incubator Centre, alumni comprise the largest cluster of NUS stakeholders utilising the facility.

The University won in the year the Enterprising Agency Award and Innovator Award presented by the Prime Minister's Office for its effort in championing radical innovations and taking the lead in piloting trials. Presented under *Enterprise Challenge 2005*, the award was for the development of a novel resorbable bioscaffold by researchers from the Faculty of Dentistry working in collaboration with industry partner, Rapid Tech Pte Ltd. The bioscaffold is able to biodegrade within six months without compromising the strength and support that are needed in the crucial few months of implantation to allow bones to regenerate. Funds from the award will allow the team to translate the technology into clinical trials paving the way for more successful implant and reconstructive surgeries.



In the build up of its entrepreneurial dimension, the University rationalised in the year the various activities of licensing, intellectual property management and technology transfer under the umbrella of the newly-formed Industry Liaison Office.

The Office took off to a propitious start with the launch of NUS-developed dengue fever diagnostic kits by Veredus Laboratories Pte Ltd, a local medical diagnostics company. Two master research agreements were also signed with General Motors and Sony Electronics (Singapore).

Following the success of the University's *Start-Up@Singapore Business Plan Competition* which has spawned more than 50 companies since its inception in 1999, the University followed through with another competition to add impetus to the cultivation of an entrepreneurial outlook amongst its stakeholders. Organised jointly with the Agency for Science, Technology and Research (A\*STAR), the *Idea to Product Competition (I2P)* was modelled after the University of Texas' *I2P International Competition* and was the first to be held in Asia.

Students were particularly active in starting up new enterprises in this period. Of the 19 start-ups that took off in the year, 16 were student ventures. One of the most promising is based on a breakthrough by a multi-disciplinary team of engineering and dentistry graduate students. Together with the Centre for Scientific Enterprise, UK, they have set up Biomers Pte Ltd. The medical device company's first products are the world's first translucent orthodontic wires with no compromise to their efficacy. Clinical studies are set to begin in academic year 2006–2007 and the results will be used to secure the approval of the Food and Drug Administration for sale of the company's products in the US.

Profile of NUS student population

22,031

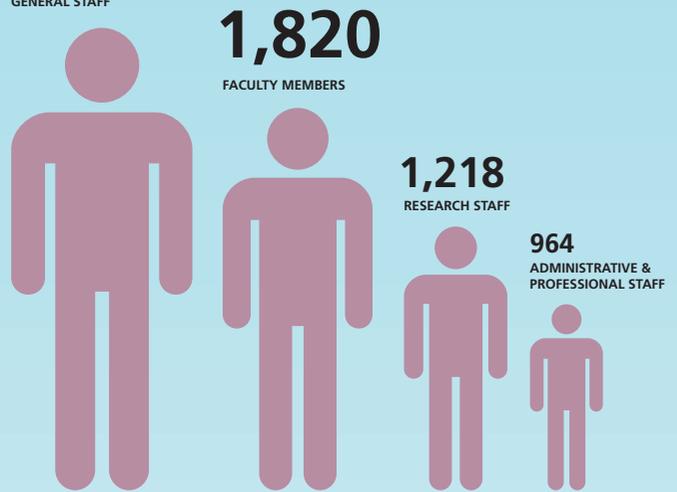
UNDERGRADUATES



Profile of NUS faculty members and staff

2,469

GENERAL STAFF

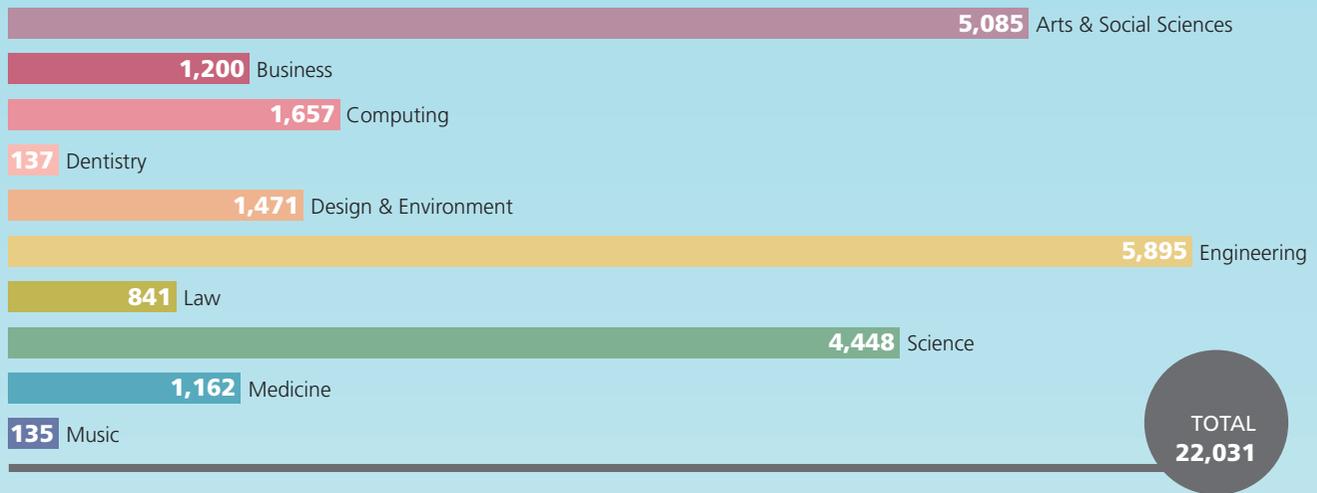


International movements of NUS students

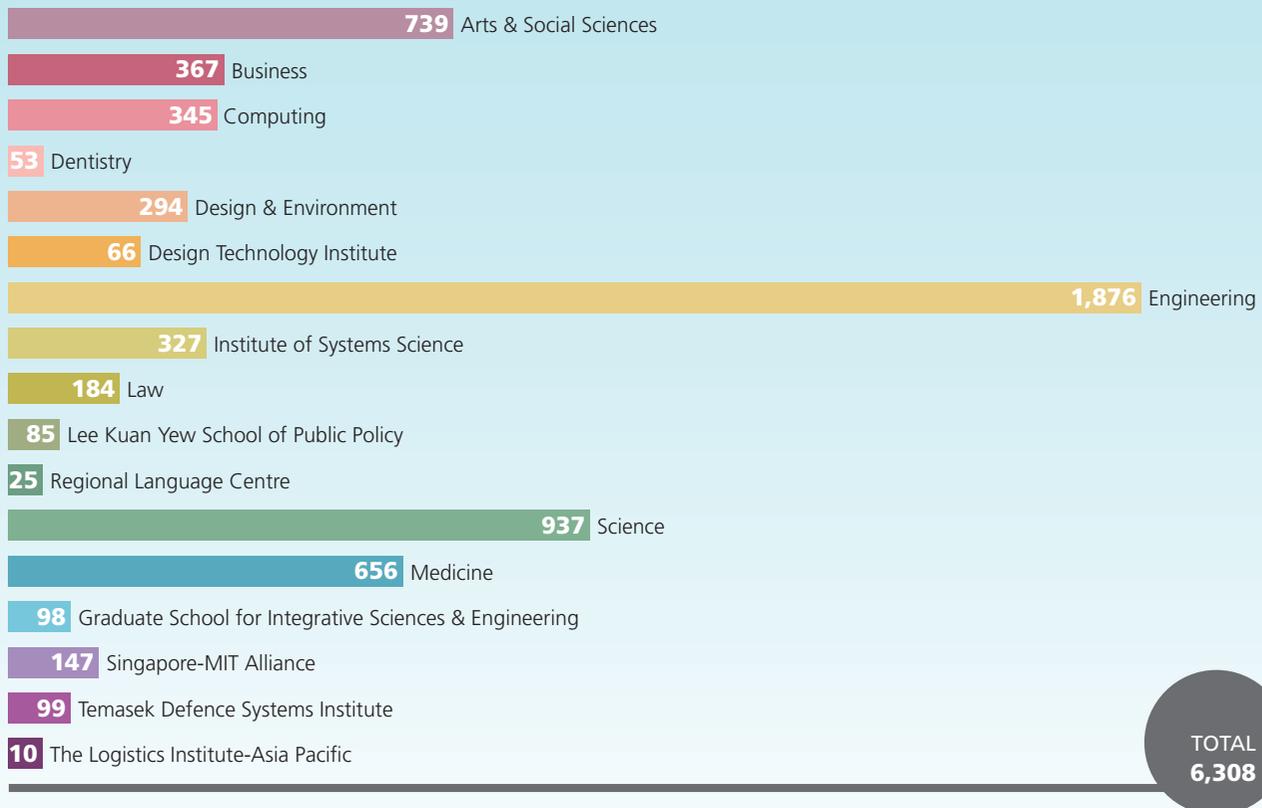


Note: \*Students who went abroad on summer programmes, for internships, competitions, clinical attachments, community service and study trips

### Undergraduate enrolment by faculty and school



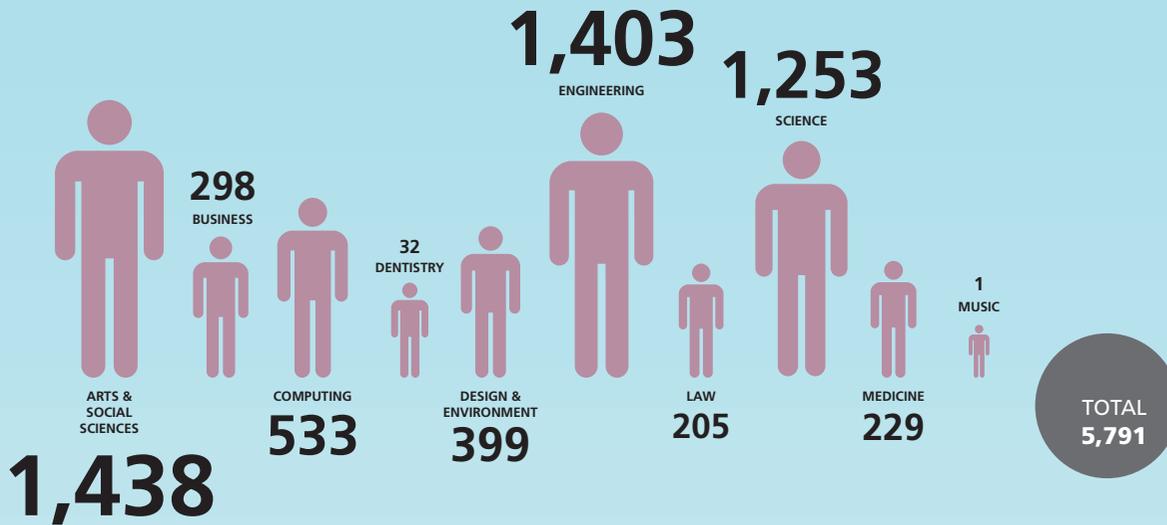
### Graduate student enrolment



Note: Above figures include students with double degrees

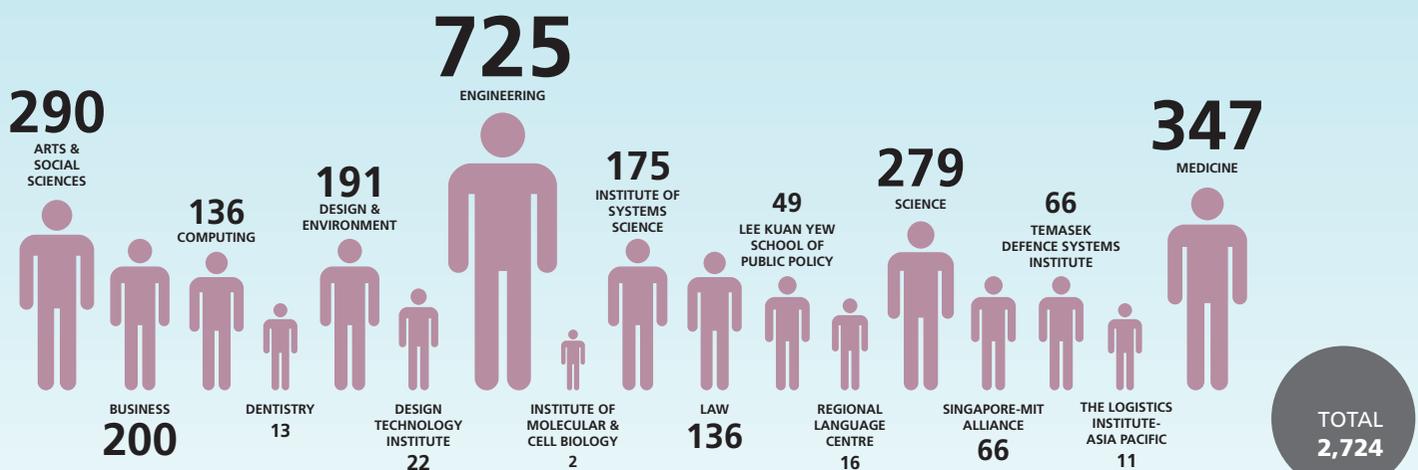
## ACADEMIC YEAR IN REVIEW (STATISTICS)

### Profile of Class of 2006 (first degree graduates)



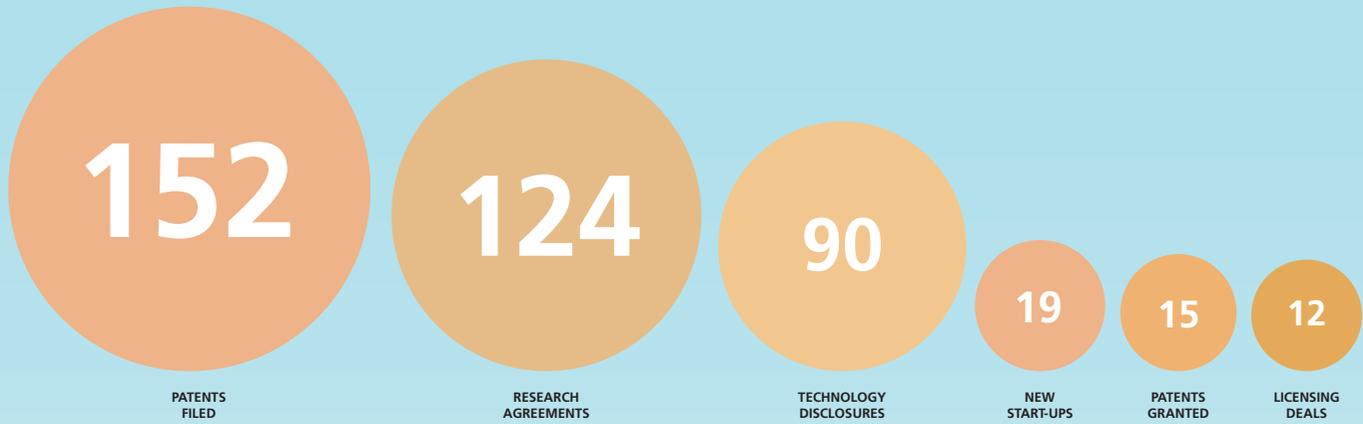
Note: The figures exclude special term graduates and are correct as at 1 July 2006

### Profile of Class of 2006 (higher degree & graduate diploma graduates)

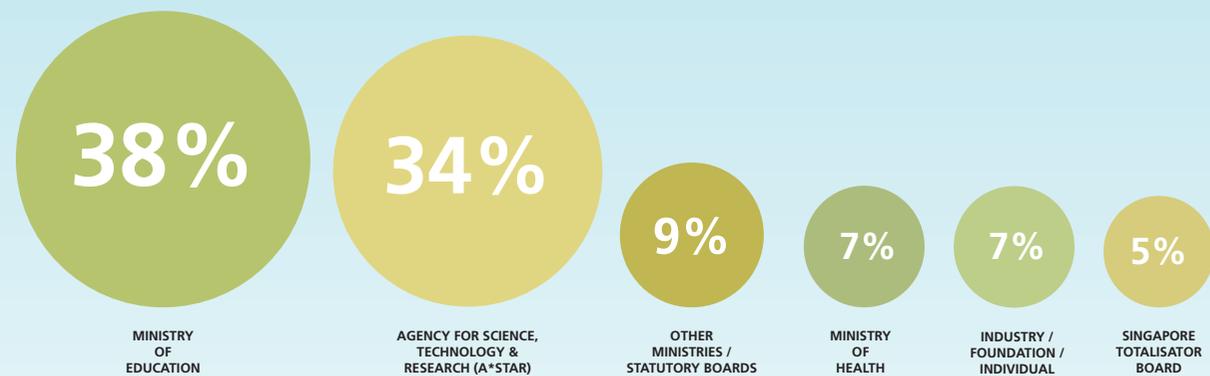


Note: The figures are based on degrees conferred between 1 July 2005 and 30 June 2006

## NUS entrepreneurial activities



## NUS R&D research funding (Donor Profile)



TOTAL CONTRIBUTION  
more than **\$185 million**

**LOOKING AHEAD** In its relentless pursuit of excellence, NUS looks not only outwards but also forward. Plans are in place and initiatives undertaken that will propel the University to offer greater opportunities and better facilities for stakeholders to optimise their potential. Below is a sprinkling of some major developments that the University has in store in the immediate future.

- The *Harvard Project for Asian and International Relations (HPAIR) Conference*, jointly organised by NUS and Harvard students, will be held in August 2006.
- The Lee Yuan Yew School of Public Policy will be establishing two centres of excellence at the end of 2006. The Asia Competitiveness Institute and the Centre on Asia and Globalization will conduct research in their respective areas to bridge the gap between current knowledge and the knowledge required to meet future challenges.
- NUS' Bukit Timah campus will welcome back its first students when the Law Faculty opens the new academic year 2006–2007 with classes at its new location.
- A Bachelor of Science (Nursing) and a Bachelor of Science (Project and Facilities Management) will be offered in academic year 2006–2007. They will be the first in their disciplines to be introduced to Singapore's higher education landscape.
- The inaugural *Raffles Forum on Good Governance* organised by the Lee Kuan Yew School of Public Policy will take place on 14–15 September 2006. Attracting an exclusive group of top policy-makers, business leaders, academics and experts from around the world, it will focus on issues and challenges faced by countries in striving to govern well and prosper in the 21st century.
- The Baba House Museum, funded by a donation from Madam Agnes Tan, to showcase the rich heritage of Straits Chinese culture, will be restored by 2007.
- Duke-NUS Graduate Medical School Singapore (a joint collaboration with Duke University and the University) will welcome its first batch of students at the Singapore General Hospital campus in 2007.
- NYU@NUS, a dual degree LLM programme jointly taught by NUS and New York University, will commence classes in 2007.
- The new university town, offering a seamless concept of residential living and learning for about 6,000 students, will be completed in 2009.
- NUS will set up an office in Beijing and establish the China Strategy Committee (CSC) to strengthen its engagement with China. NUS@Beijing will facilitate the University's academic, entrepreneurial and outreach activities in China. CSC will look into the overarching strategies and goals for NUS' activities in China.
- With the appointment of NUS President, Professor Shih Choon Fong as Chair of the Governing Board, APRU World Institute, NUS looks forward to playing an active role in this international institute of advanced studies dedicated to multi-disciplinary research on issues of global importance.





