Jubilee Whale unveiled

MAR-APR 2016

NUS NEWS

3 Latest overseas college in Switzerland
4 New double degree with Sciences Po
12 Healthy bread for diabetics
Whale exhibit opens to public

Admiring the Jubilee Whale exhibit at the launch were (from far right) Ms Dhanabal, Mr Tan Chorh Chuan, NSC President; and Professor Shen Zouwei, NUS Science Dean; (Special Projects), NUS Science. More than 250 donors and supporters of the whale also attended the event. The Museum's many individual and corporate supporters, such as Temasek Holdings, Wildlife Reserves Singapore and Mandai Safari Park Holdings, help raise over $1.3 million for the Jubilee Whale Fund. This goes towards the restoration and maintenance of the whale, as well as marine biodiversity education, research and conservation. The island's first complete whale skeleton was collected in 1892 from Makaraka and had long been the centrepiece at the old Raffles Museum. However, it was gifted to Malaysia in 1974.

The Jubilee Whale, recovered off the coast of Singapore last July by the Lee Kong Chian Natural History Museum (LKCNHM) at NUS, is now proudly displayed in the mammal section at the Museum's gallery.

Staff nicknamed the whale “Jubi Lee” as it was found during Singapore's Golden Jubilee year.

Ms Ho Ching, CEO of Temasek Holdings, unveiled the Mount skeleton on 14 March. 10.6-metre sperm whale's skeleton was collected last July by the Lee Kong Chian Natural History Museum (LKCNHM) at NUS Science. More than 250 donors and supporters of the whale also attended the event. The Museum's many individual and corporate supporters, such as Temasek Holdings, Wildlife Reserves Singapore and Mandai Safari Park Holdings, help raise over $1.3 million for the Jubilee Whale Fund. This goes towards the restoration and maintenance of the whale, as well as marine biodiversity education, research and conservation.

The island's first complete whale skeleton was collected in 1892 from Makaraka and had long been the centrepiece at the old Raffles Museum. However, it was gifted to Malaysia in 1974.

The University of Singapore has partnered the Ecole Polytechnique Fédérale de Lausanne (EPFL) in Switzerland to set up the seventh NUS Overseas College (NOC), after New York, Shanghai, Silicon Valley, Stockholm and Tel Aviv.

The first batch of NUS Engineering graduates will begin the programme in July 2016 to pursue a postgraduate degree, and learn about entrepreneurship first-hand. They will spend six months interning at design-centric and engineering firms in Switzerland, while taking entrepreneurship-related courses at the EPFL.

The collaboration with NUS represents the Swiss institute’s first such venture with an overseas university. EPFL will send its students on an exchange programme to NUS, a feature unique of the NDC in Lausanne.

Professor Tommy Koh, NUS Enterprise, noted that Singapore needs people who understand technology and the know-how to translate it. The new NDC at EPFL, chosen for its strengths in research, design thinking and engineering, will equip students to meet the anticipated needs of Singapore in innovation and enterprise. The Swiss university is consistently ranked among the top research and engineering institutes in continental Europe.

Dr Vivian Balakrishnan, Singapore's Minister for Foreign Affairs; Mr S Dhanabalan, Singapore's Minister for Foreign Affairs; Mr Ng Wai King, NUS Trustees; Madam Kay Kuok and Mr Ng Wai King, NUS Trustees; Madam Kay Kuok and Professor Peter Ng, Head of LKCNHM noted: “As fate would have it, last year after we opened the Museum, right in the middle of our Jubilee Year celebrations, a large whale washed up off Jurong. Over the period of eight-plus months, we’ve taken the carcass of the floating sperm whale, processed it, cleaned it, enough for a wonderful exhibit, and still make the Jubilee Year.”

He added, “Some nine months to deliver a whale from a carcass to an exhibit is a record time.”

Professor Peter Ng praised the timeless efforts of staff, volunteers and various government agencies in helping the Museum secure the whale and make the impressive exhibit possible.

Members of the public who wish to contribute to the Jubilee Whale Fund can do so at http://lkcnhm.nus.edu.sg/nusindex.php/Donate12.

Swiss route for enterprising engineering students

The University has partnered the Ecole Polytechnique Fédérale de Lausanne (EPFL) in Switzerland to set up the seventh NUS Overseas College (NOC), after New York, Shanghai, Silicon Valley, Stockholm and Tel Aviv.

The first batch of NUS Engineering graduates will begin the programme in July 2016 to pursue a postgraduate degree, and learn about entrepreneurship first-hand. They will spend six months interning at design-centric and engineering firms in Switzerland, while taking entrepreneurship-related courses at the EPFL.

The collaboration with NUS represents the Swiss institute’s first such venture with an overseas university. EPFL will send its students on an exchange programme to NUS, a feature unique of the NDC in Lausanne.

Dr Vivian Balakrishnan, Singapore’s Minister for Foreign Affairs; Mr S Dhanabalan, Singapore’s Minister for Foreign Affairs; Mr Ng Wai King, NUS Trustees; Madam Kay Kuok and Professor Peter Ng, Head of LKCNHM noted: “As fate would have it, last year after we opened the Museum, right in the middle of our Jubilee Year celebrations, a large whale washed up off Jurong. Over the period of eight-plus months, we’ve taken the carcass of the floating sperm whale, processed it, cleaned it, enough for a wonderful exhibit, and still make the Jubilee Year.”

He added, “Some nine months to deliver a whale from a carcass to an exhibit is a record time.”

Professor Peter Ng praised the timeless efforts of staff, volunteers and various government agencies in helping the Museum secure the whale and make the impressive exhibit possible.

Members of the public who wish to contribute to the Jubilee Whale Fund can do so at http://lkcnhm.nus.edu.sg/nusindex.php/Donate12.

The University has partnered the Ecole Polytechnique Fédérale de Lausanne (EPFL) in Switzerland to set up the seventh NUS Overseas College (NOC), after New York, Shanghai, Silicon Valley, Stockholm and Tel Aviv.

The first batch of NUS Engineering graduates will begin the programme in July 2016 to pursue a postgraduate degree, and learn about entrepreneurship first-hand. They will spend six months interning at design-centric and engineering firms in Switzerland, while taking entrepreneurship-related courses at the EPFL.

The collaboration with NUS represents the Swiss institute’s first such venture with an overseas university. EPFL will send its students on an exchange programme to NUS, a feature unique of the NDC in Lausanne.

Dr Vivian Balakrishnan, Singapore’s Minister for Foreign Affairs; Mr S Dhanabalan, Singapore’s Minister for Foreign Affairs; Mr Ng Wai King, NUS Trustees; Madam Kay Kuok and Professor Peter Ng, Head of LKCNHM noted: “As fate would have it, last year after we opened the Museum, right in the middle of our Jubilee Year celebrations, a large whale washed up off Jurong. Over the period of eight-plus months, we’ve taken the carcass of the floating sperm whale, processed it, cleaned it, enough for a wonderful exhibit, and still make the Jubilee Year.”

He added, “Some nine months to deliver a whale from a carcass to an exhibit is a record time.”

Professor Peter Ng praised the timeless efforts of staff, volunteers and various government agencies in helping the Museum secure the whale and make the impressive exhibit possible.

Members of the public who wish to contribute to the Jubilee Whale Fund can do so at http://lkcnhm.nus.edu.sg/nusindex.php/Donate12.

The University has partnered the Ecole Polytechnique Fédérale de Lausanne (EPFL) in Switzerland to set up the seventh NUS Overseas College (NOC), after New York, Shanghai, Silicon Valley, Stockholm and Tel Aviv.

The first batch of NUS Engineering graduates will begin the programme in July 2016 to pursue a postgraduate degree, and learn about entrepreneurship first-hand. They will spend six months interning at design-centric and engineering firms in Switzerland, while taking entrepreneurship-related courses at the EPFL.

The collaboration with NUS represents the Swiss institute’s first such venture with an overseas university. EPFL will send its students on an exchange programme to NUS, a feature unique of the NDC in Lausanne.

Dr Vivian Balakrishnan, Singapore’s Minister for Foreign Affairs; Mr S Dhanabalan, Singapore’s Minister for Foreign Affairs; Mr Ng Wai King, NUS Trustees; Madam Kay Kuok and Professor Peter Ng, Head of LKCNHM noted: “As fate would have it, last year after we opened the Museum, right in the middle of our Jubilee Year celebrations, a large whale washed up off Jurong. Over the period of eight-plus months, we’ve taken the carcass of the floating sperm whale, processed it, cleaned it, enough for a wonderful exhibit, and still make the Jubilee Year.”

He added, “Some nine months to deliver a whale from a carcass to an exhibit is a record time.”

Professor Peter Ng praised the timeless efforts of staff, volunteers and various government agencies in helping the Museum secure the whale and make the impressive exhibit possible.

Members of the public who wish to contribute to the Jubilee Whale Fund can do so at http://lkcnhm.nus.edu.sg/nusindex.php/Donate12.

The University has partnered the Ecole Polytechnique Fédérale de Lausanne (EPFL) in Switzerland to set up the seventh NUS Overseas College (NOC), after New York, Shanghai, Silicon Valley, Stockholm and Tel Aviv.

The first batch of NUS Engineering graduates will begin the programme in July 2016 to pursue a postgraduate degree, and learn about entrepreneurship first-hand. They will spend six months interning at design-centric and engineering firms in Switzerland, while taking entrepreneurship-related courses at the EPFL.

The collaboration with NUS represents the Swiss institute’s first such venture with an overseas university. EPFL will send its students on an exchange programme to NUS, a feature unique of the NDC in Lausanne.

Dr Vivian Balakrishnan, Singapore’s Minister for Foreign Affairs; Mr S Dhanabalan, Singapore’s Minister for Foreign Affairs; Mr Ng Wai King, NUS Trustees; Madam Kay Kuok and Professor Peter Ng, Head of LKCNHM noted: “As fate would have it, last year after we opened the Museum, right in the middle of our Jubilee Year celebrations, a large whale washed up off Jurong. Over the period of eight-plus months, we’ve taken the carcass of the floating sperm whale, processed it, cleaned it, enough for a wonderful exhibit, and still make the Jubilee Year.”

He added, “Some nine months to deliver a whale from a carcass to an exhibit is a record time.”

Professor Peter Ng praised the timeless efforts of staff, volunteers and various government agencies in helping the Museum secure the whale and make the impressive exhibit possible.

Members of the public who wish to contribute to the Jubilee Whale Fund can do so at http://lkcnhm.nus.edu.sg/nusindex.php/Donate12.

The University has partnered the Ecole Polytechnique Fédérale de Lausanne (EPFL) in Switzerland to set up the seventh NUS Overseas College (NOC), after New York, Shanghai, Silicon Valley, Stockholm and Tel Aviv.

The first batch of NUS Engineering graduates will begin the programme in July 2016 to pursue a postgraduate degree, and learn about entrepreneurship first-hand. They will spend six months interning at design-centric and engineering firms in Switzerland, while taking entrepreneurship-related courses at the EPFL.

The collaboration with NUS represents the Swiss institute’s first such venture with an overseas university. EPFL will send its students on an exchange programme to NUS, a feature unique of the NDC in Lausanne.

Dr Vivian Balakrishnan, Singapore’s Minister for Foreign Affairs; Mr S Dhanabalan, Singapore’s Minister for Foreign Affairs; Mr Ng Wai King, NUS Trustees; Madam Kay Kuok and Professor Peter Ng, Head of LKCNHM noted: “As fate would have it, last year after we opened the Museum, right in the middle of our Jubilee Year celebrations, a large whale washed up off Jurong. Over the period of eight-plus months, we’ve taken the carcass of the floating sperm whale, processed it, cleaned it, enough for a wonderful exhibit, and still make the Jubilee Year.”

He added, “Some nine months to deliver a whale from a carcass to an exhibit is a record time.”

Professor Peter Ng praised the timeless efforts of staff, volunteers and various government agencies in helping the Museum secure the whale and make the impressive exhibit possible.

Members of the public who wish to contribute to the Jubilee Whale Fund can do so at http://lkcnhm.nus.edu.sg/nusindex.php/Donate12.
Double degree from NUS, Sciences Po

NUS and Sciences Po, France’s leading social sciences university, today launched a Double Degree Programme (DDP) for undergraduates from August 2016. This represents the University’s first tie-up with Sciences Po and the French institute’s first joint undergraduate degree programme with a Singapore university.

NUS President Professor Tan Chorh Chuan and Sciences Po President Mr Frederic Monin signed an agreement on 24 February at NUS to formally launch the programme. The new four-year DDP, co-hosted by the NUS University Scholars Programme (USP) and Sciences Po, will draw on the complementary strengths of both universities. Students will spend their first two years at one of three Sciences Po campuses to study its renowned liberal arts curriculum in the social sciences. This is followed by two years at NUS where they can specialise in either Economics, History, Political Science or Sociology which is offered by NUS Arts and Social Sciences.

Upon successfully completing the programme, students will earn two degrees: a Bachelor of Arts degree conferred by Sciences Po, and a Bachelor of Arts or Social Sciences (Honours) awarded by NUS. They are also expected to have gained proficiency in both English and French.

Prof Tan highlighted that the international exposure at Sciences Po and multidisciplinary education at NUS will nurture students to become global citizens effective in various cultural settings, and prepare them for diverse careers in a rapidly changing global environment.

“This DDP between Sciences Po and NUS combines today the best ingredients that are necessary to succeed in tomorrow’s world,” concurred Mr Monin.

Students will study in broad-ranging industries.

The undergraduates will also expand their multidisciplinary studies by taking modules such as writing and critical thinking extended by USP. The DDP will welcome an inaugural intake of up to 10 students.

Grooming data science, analytics experts

When the academic year begins this August, undergraduates can opt for a new degree programme in Data Science and Analytics.

The four-year direct Honours programme, offered by the Departments of Mathematics, and Statistics & Applied Probability in NUS Science, in collaboration with NUS Computing, will have an initial intake of about 60 students.

Students in a computing class

The first such programme by a university in Singapore will address the shortage of data science experts needed to contribute to the country’s Smart Nation initiative.

“You name any business sector, the role of data science is there,” said Professor Tan Eng Chye, NUS Deputy President (Academic Affairs) and Provost, adding that it is an emerging area that has changed the way business is conducted.

The technology-focused course is tailored to enable graduates to acquire, manage and explore data to meet the requirements of data collection, processing and analyses across various sectors. Students will learn skills — for instance, extracting important information from medical images, revealing hidden market indicators and predicting consumer behavior — to equip them for careers in broad-ranging industries.

Dr Kelvin Singh, a Year 2 student from the current Bachelor of Science in Business Analytics and Bachelor of Computing in Information Security offered by NUS Computing.

As Singapore builds up world-class research capabilities in areas that are critical to the nation and the economy, NUS is well-poised to contribute its leading expertise to address national challenges and improve lives of Singaporeans,” he added.

NUS was ranked in 34 of the 42 subjects relevant to the university, making the top 30 worldwide for a total of 33 subjects. The University also took the top or second spot, among Asian universities in 29 subjected including Nursing and Social Policy and Administration, both new subjects being ranked.

The yearly rankings are based on surveys of 76,798 academics and 44,426 employers, as well as the analysis of 28.5 million research papers and more than 113 million citation attributions.

Law School reviews honours degrees

This year’s NUS Law graduating cohort might have twice the number of first Class Honours recipients than previous years.

The School has revised its Class of Honours policy to bring its Honours awards closer to comparable universities in the UK and Australia. The top 10 per cent of each graduating class will now be eligible for the first Class Honours degree, up from the current 5 per cent. More students will also receive the Second Class (Upper Division) Honours degree, which will now come from the top 65 per cent to 68 per cent of each cohort, up from 50 per cent.

NUS Law Dean Professor Simon Chesterman made this announcement on 7 March, saying, “Other top law schools with a comparable cohort list, such as Oxford, London School of Economics and University College London, are awarding first Class Honours degree in the range of 12 to 24 percent, and Second Class (Upper Division) Honours degrees in the range of 67 to 82 per cent. In view of the high quality of our students, NUS finds it timely to bring its honours awards closer to its peers.”

“Open Day engages enthusiastic visitors

On 12 March, more than 21,500 visitors turned up at NUS to check out the University’s Open Day 2016. This year’s event saw some 110 speakers, 94 talks, 20 programme booths and 23 student activities. The programmes were well spread-out compared to previous years, utilising more venues at University Town.

Shuttle buses ferried visitors to residential colleges and selected venues at Kent Ridge Campus for tours. The new Yale-NUS College campus, inaugurated last October, hosted talks on the value of a liberal arts education and tips on application procedures.

Questions snaked outside auditoriums and seminar rooms as students and parents lined up for talks conducted throughout the day. More sessions were added this year in anticipation of the overwhelming response.

Law School reviews honours degrees

This year’s NUS Law graduating cohort might have twice the number of First Class Honours recipients than previous years.

The School has revised its Class of Honours policy to bring its Honours awards closer to comparable universities in the UK and Australia. The top 10 per cent of each graduating class will now be eligible for the first Class Honours degree, up from the current 5 per cent. More students will also receive the Second Class (Upper Division) Honours degree, which will now come from the top 65 per cent to 68 per cent of each cohort, up from 50 per cent.

NUS Law Dean Professor Simon Chesterman made this announcement on 7 March, saying, “Other top law schools with a comparable cohort list, such as Oxford, London School of Economics and University College London, are awarding first Class Honours degree in the range of 12 to 24 percent, and Second Class (Upper Division) Honours degrees in the range of 67 to 82 per cent. In view of the high quality of our students, NUS finds it timely to bring its honours awards closer to its peers.”

“The technology-focused course will also receive the Second Class (Upper Division) Honours degree, which will now come from the top 65 per cent to 68 per cent of each cohort, up from 50 per cent.

NUS Law Dean Professor Simon Chesterman made this announcement on 7 March, saying, “Other top law schools with a comparable cohort list, such as Oxford, London School of Economics and University College London, are awarding first Class Honours degree in the range of 12 to 24 percent, and Second Class (Upper Division) Honours degrees in the range of 67 to 82 per cent. In view of the high quality of our students, NUS finds it timely to bring its honours awards closer to its peers.”

“The technology-focused course will also receive the Second Class (Upper Division) Honours degree, which will now come from the top 65 per cent to 68 per cent of each cohort, up from 50 per cent.

NUS Law Dean Professor Simon Chesterman made this announcement on 7 March, saying, “Other top law schools with a comparable cohort list, such as Oxford, London School of Economics and University College London, are awarding first Class Honours degree in the range of 12 to 24 percent, and Second Class (Upper Division) Honours degrees in the range of 67 to 82 per cent. In view of the high quality of our students, NUS finds it timely to bring its honours awards closer to its peers.”

NUS News
Anatomy facility gets major makeover

The Human anatomy teaching facility has been refurbished and expanded.

The study of the human anatomy can now be conducted more efficiently and in better comfort at the NUS Yong Loo Lin School of Medicine (NUS Medicine) now that the 30-year-old learning and teaching facility has received an extensive facelift.

The space is now 16 per cent bigger than the original 800 students from Medicine, Dentistry, Nursing, Pharmacy and Life Sciences who attend Human Anatomy practicals can now be conducted more efficiently and in better comfort.

The refurbishment includes:

• Anti-slip flooring and embalming rooms
• New-generation trolleys equipped with downdraft suction systems to minimise formalin exposure
• Refurbished mortuary to accommodate more cadavers

A new reception area for visitors and families of deceased body donors has also been set up in the Anatomy building.

The dissection and embalming areas have now been separated from the general teaching section so that dissections can better carry out specimen preparation. NUS Anatomy will reintroduce the dissection elective posting for Year 4 NUS Medicine students, and begin offering new workshops for residents and specialists.

"The works are timely, because our student numbers have gone up over the years and we want to provide them and our staff with a more conducive learning and teaching environment," explained former NUS Anatomy Head Professor Bay Boon Huat.

The upgraded facility was officially opened on 17 March by Guest-of-Honour Singapore Minister for Health Gan Kim Yong.

Mr Gan pointed out that the refurbishment will benefit both undergraduate students and practising healthcare professionals. "All of them now have the opportunity to review and reinforce their knowledge of anatomy in their respective areas of specialisation," he said.

Groovy lanterns light up Marina Bay

When night fell, the Marina Bay area in Singapore was transformed into a magical place by imaginative installations at the Light Marina Bay art festival in March. Five distinct lanterns with geometric shadows — unique 3D-printed creations by NUS students — especially stood out.

Groove Light, a project by a team of 11 Year 4 NUS Architecture students, showcased intriguing pieces dubbed Submarine, Cliff, Seashell, Lighthouse and Coral. When light is shone through them, the relationship between the light source and the shadows formed conjured up an optical illusion of five lanterns floating above a continuous geometric shadow carpet.

Visitors can interact with the exhibit by pulling, swinging or rotating particular lanterns in different ways to distort the shadows and modify the lightscape created.

"We looked at how computational technologies in the 21st century could enhance future lighting in the public domain," said Assistant Professor Shinya Onda from NUS Architecture, who supervised the project with Associate Professors Joseph Lim and Cheah Kok Ming.

The lanterns, which embraced the sustainability message, were fabricated from biodegradable material that can be reused for 3D printing.

Organised by the Urban Redevelopment Authority of Singapore, the light festival aims to promote the use of public spaces in the area, as well as present regional and international talent in lighting. Themed "In Praise of Shadows", this year's event boasted the most number of art interpretations displayed by local educational institutions, alongside world-class artists from Germany, Israel, Japan, New Zealand, Norway and the US.

Groove Light installation at the Light Marina Bay festival

Healing music connects people

When playing our compositions, especially the upbeat numbers, we had wheelchair-bound patients clapping along, even singing...And that's what this project is all about, really, connecting people through music," she stressed.

"What was an absolute joy to witness was when we were playing our compositions, especially the upbeat numbers, we had wheelchair-bound patients clapping along, even singing...And that's what this project is all about, really, connecting people through music," she stressed.

Drawing from this successful experience, the group plans to release a new album with a different theme each year.

The lanterns, which embraced the sustainability message, were fabricated from biodegradable material that can be reused for 3D printing.

Organised by the Urban Redevelopment Authority of Singapore, the light festival aims to promote the use of public spaces in the area, as well as present regional and international talent in lighting. Themed "In Praise of Shadows", this year's event boasted the most number of art interpretations displayed by local educational institutions, alongside world-class artists from Germany, Israel, Japan, New Zealand, Norway and the US.

Groove Light installation at the Light Marina Bay festival

The seven undergraduates and 15 staff from Sengkang Health participated in a Creative Music Workshop in February at Alexandra Hospital. They created five original compositions over four days —

The lanterns, which embraced the sustainability message, were fabricated from biodegradable material that can be reused for 3D printing.

Organised by the Urban Redevelopment Authority of Singapore, the light festival aims to promote the use of public spaces in the area, as well as present regional and international talent in lighting. Themed "In Praise of Shadows", this year's event boasted the most number of art interpretations displayed by local educational institutions, alongside world-class artists from Germany, Israel, Japan, New Zealand, Norway and the US.

Groove Light installation at the Light Marina Bay festival

The seven undergraduates and 15 staff from Sengkang Health participated in a Creative Music Workshop in February at Alexandra Hospital. They created five original compositions over four days —

The lanterns, which embraced the sustainability message, were fabricated from biodegradable material that can be reused for 3D printing.

Organised by the Urban Redevelopment Authority of Singapore, the light festival aims to promote the use of public spaces in the area, as well as present regional and international talent in lighting. Themed "In Praise of Shadows", this year's event boasted the most number of art interpretations displayed by local educational institutions, alongside world-class artists from Germany, Israel, Japan, New Zealand, Norway and the US.

Groove Light installation at the Light Marina Bay festival

The seven undergraduates and 15 staff from Sengkang Health participated in a Creative Music Workshop in February at Alexandra Hospital. They created five original compositions over four days —

The lanterns, which embraced the sustainability message, were fabricated from biodegradable material that can be reused for 3D printing.

Organised by the Urban Redevelopment Authority of Singapore, the light festival aims to promote the use of public spaces in the area, as well as present regional and international talent in lighting. Themed "In Praise of Shadows", this year's event boasted the most number of art interpretations displayed by local educational institutions, alongside world-class artists from Germany, Israel, Japan, New Zealand, Norway and the US.

Groove Light installation at the Light Marina Bay festival

The seven undergraduates and 15 staff from Sengkang Health participated in a Creative Music Workshop in February at Alexandra Hospital. They created five original compositions over four days —

The lanterns, which embraced the sustainability message, were fabricated from biodegradable material that can be reused for 3D printing.

Organised by the Urban Redevelopment Authority of Singapore, the light festival aims to promote the use of public spaces in the area, as well as present regional and international talent in lighting. Themed "In Praise of Shadows", this year's event boasted the most number of art interpretations displayed by local educational institutions, alongside world-class artists from Germany, Israel, Japan, New Zealand, Norway and the US.
Rising stars shine on Forbes under 30 list

Research Fellows Dr Taor Mel Lin from the Tropical Marine Science Institute at NUS and Dr Zuo Jun from NUS Chemical and Biomolecular Engineering are among the names on Forbes’ inaugural 30 Under 30 Asia list, under the Healthcare & Science category. The young entrepreneurs, scientists and healthcare innovators in this category are prominent in advancing the health and well-being of people worldwide.

Since young, Dr Neo has been fascinated with the marine environment and she wanted particularly to protect the giant clams. In 2013, she founded Singapore’s giant clam and well-being of people worldwide.

NUS Professors Lim Chwee Tock and James Goh have been elected to the American Institute for Medical and Biological Engineering (AIMBE) College of Fellows. NUS Alumni also on the Forbes list:

- NUS Business Mr Chan Yi Wen, Co-Founder, Bolt Media in Media, Marketing & Advertising
- NUS Science Ms Guan Dian, Co-Founder and Vice-President, PatSnap, in Enterprise Technology
- NUS Engineering Mr Lucas Ng and NUS Medicine Mr Quek Si Ru, Co-Founder, Carswell, in Consumer Technology
- NUS Engineering Mr Shu Su, Founder and CEO, Microhydraulics, in Healthcare & Science
- Prof Rostoin Taq, Co-Founder and CEO of Zopin, and Dr Wang Tian Hue, President of Singapore Medical Association, who is also Adjunct Assistant Professor at Duke-NUS Medical School, are NUS alumni who served as judges for the Enterprise Technology and Healthcare & Science categories respectively.

Other NUS alumni also on the Forbes list:

- NUS Business Mr Chen Chi Hsien, Co-Founder, Big Data Capital, in Marketing & Advertising
- NUS Science Ms Guan Dian, Co-Founder and Vice-President, PatSnap, in Enterprise Technology
- NUS Engineering Mr Lucas Ng and NUS Medicine Mr Quek Si Ru, Co-Founder, Carswell, in Consumer Technology
- NUS Engineering Mr Shu Su, Founder and CEO, Microhydraulics, in Healthcare & Science
- Prof Rostoin Taq, Co-Founder and CEO of Zopin, and Dr Wang Tian Hue, President of Singapore Medical Association, who is also Adjunct Assistant Professor at Duke-NUS Medical School, are NUS alumni who served as judges for the Enterprise Technology and Healthcare & Science categories respectively.

Pro bono awards recognise legal contribution

The NUS Law Class of 1992 received the Pro Bono Champion Award for the Pro Bono Champion Award for the Pro Bono Champion Award, and the 2014 recipients of this award are Innocence Project (Singapore), Military Justice Project and NUS Adult Protection Research Team. The RHTLaw Taylor Wessing Subhas Anandan Pro Bono Award, named after RHTLaw Taylor Wessing’s late Senior Partner Mr Subhas Anandan, a strong advocate of pro bono work, was presented to the Convenor at the 2016 Pro Bono Awards Ceremony in March. Two new grants that finance laudable pro bono projects by students with limited resources.

Pro Bono Leadership Awards recognize six students and alumni for their pro bono work at the 2016 Pro Bono Awards Ceremony in March. Two new grants that finance laudable pro bono projects by students with limited resources.

Pro Bono Leadership Awards recognize six students and alumni for their pro bono work at the 2016 Pro Bono Awards Ceremony in March. Two new grants that finance laudable pro bono projects by students with limited resources.

First in worldwide construction research

NUS has been placed first globally for international construction research by the Canadian Journal of Civil Engineering, outperforming 72 other institutions.

The research focuses on four core themes — risk management, performance measurement, general strategy and competitiveness, as well as financial market entry decisions. It was based on a bibliometric analysis over a 10-year period from 2003 to 2013.

The University topped the list in the total number of publications, number of articles produced by a single institution; and number of first author products. It also came in second for the number of collaborative inter-institutional articles produced. Of the 16 papers worldwide cited at least 25 times, the University contributed to the Of the 16 papers worldwide cited at least 25 times, the University contributed to the
It has been a year since Singapore’s Founding Prime Minister, the late Mr Lee Kuan Yew, passed away, but his memories and legacy stay strong.

At the first anniversary of Mr Lee’s passing on 23 March, the NUS Lee Kuan Yew School of Public Policy (LKY School) organised a special forum titled “The Enduring Ideas of Lee Kuan Yew” to commemorate the profound insights of the great statesman. Some 600 participants attended the event.

In his opening remarks, NUS Deputy President (Academic Affairs) and Provost Professor Tan Eng Chye paid tribute to Mr Lee, calling him “a leader like no other.”

Prof Tan noted, “Grateful Singaporeans grieved the passing of an incomparable leader whose passion, vision and tireless efforts have found and created a thriving and successful Singapore of today. One year on, Mr Lee Kuan Yew’s life and work continue to shape Singapore.”

The panel discussion, chaired by LKY School Vice Dean (Academic Affairs) Associate Professor Vincent Paul Tan, focused on four aspects of Mr Lee’s legacy: multiracialism; renewal of leadership and internal reform within the People’s Action Party; clean and green Singapore; and Mr Lee’s influence on the world.

Mr Lee’s ideas of creating an inclusive, multicultural society as well as a clean, green physical space was built upon his vision of a stable and peaceful nation with first-world standards of clean and green public spaces. He believed the strategy would encourage companies to base themselves in Singapore and attract tourists to its shores.

He was a man before his time. He emphasised green before it was fashionable to be green.

— Prof Chan Heng Chee, Member, NUS Board of Trustees

The panelists also recognised Mr Lee’s foresight in building up human capital, preempting environmental issues; and creating the “Singapore” brand, out of which arose a sense of national pride.

expressing hope that his ideas will last for the good of the country. Although Singapore has achieved peace between the different races, there is still some urgency in addressing multicloud issues, not only among the country’s minorities but also in response to its changing population profile due to immigration, he admitted.

Professor Chan Heng Chee, Chairman of the Singapore University of Technology and Design’s Lee Kuan Yew Centre for Innovative Cities, elaborated on Mr Lee’s goal to make Singapore an “oasis in Southeast Asia.”

Prof Chan, an NUS Trustee, pointed out that Mr Lee kick-started the national tree planting effort in 1963. Known as “Singapore’s Chief Gardener”, he also effected many lessons he had learnt from his trips abroad, said Prof Chan, who accompanied Mr Lee frequently on his trips in the US, during her 16-year stint as Singapore’s Ambassador to that country.

To realise his vision, Mr Lee transformed Singapore through projects such as affordable public housing and cleaning up the Singapore River instead of using ideologues and appealing to emotion, noted Dr Subrahmanyan Jaishankar, Foreign Secretary of India, Ministry of External Affairs.

Dr Jaishankar, who had met Mr Lee on several occasions, had flown into Singapore to speak at the event.

Dr Shashi Jaishankar, Senior Fellow and Head of the 5 Rajaratnam School of International Studies’ Centre of Excellence for National Security, lauded Mr Lee’s political foresight. He fielded and tested potential leaders, even during the country’s infancy, to ensure lines of succession that would secure Singapore’s survival.

The independent GHRF Commission was convened by the US National Academy of Medicine to conduct the study. The IOG drew on insights and expertise across the drawn-up infectious disease, implemented the peer-review process and helped in disseminating the procedure. Other IOG members included President of the Japan Community Health Care Organization Dr Shigeru Omi; Former Director-General of the Pan American Health Organization Dr Mirta Roses; and Head of Global Health and Healthcare Industries at the World Economic Forum Dr Arnaud Bernaert.

The independent GHRF Commission was convened by the US National Academy of Medicine to conduct the study. The IOG drew on insights and expertise across the globe through 11 days of public meetings and more than 250 presentations, while ensuring independence and objectivity of the Commission.

The rate of pandemics has been rising, notably from SARS in 2003 to the Ebola outbreak in 2014. Despite the alarming security risk, countries are woefully underinvested and underprepared to protect populations from such threats, due to other more pressing priorities.

Set against this backdrop, the Commission published a report titled The Neglected Dimension of Global Security: A Framework to Counter Infectious Disease Crises in January this year. It highlights the critical need of pandemic preparedness in national security and economic stability. More importantly, it reveals that the impact of the crises is beyond human health and mobilisation, necessitating long-term commitment of multiple parties and sectors to mitigate the situation.

“This report serves as a catalyst, an evidence-based, objective set of recommendations that could provide the basis for coordinated action by the many stakeholders involved,” said Prof Tan. He stressed that a significant level of preparedness needs to be maintained because “the threat is always there”.

As Director of Medical Services with the Singapore Ministry of Health when SARS broke out 13 years ago, NUS President Professor Tan Chorh Chuan led the public health response to the deadly respiratory disease. He has now brought his first-hand experience in battling the infection to the Global Health Risk Framework (GHRF) Commission.

Prof Tan was one of 12 prominent international experts of an Independent Oversight Group (IOG), tasked with steering the health commission to examine gaps on preparedness, response and leadership in addressing the growing threat of infectious diseases. The IOG guided the commission on the scope of the study, handled conflict-of-interest concerns, implemented the peer-review process and helped in disseminating the procedure. Other IOG members included President of the Japan Community Health Care Organization Dr Shigeru Omi; Former Director-General of the Pan American Health Organization Dr Mirta Roses; and Head of Global Health and Healthcare Industries at the World Economic Forum Dr Arnaud Bernaert.

NUS and Sembcorp Development Ltd (Sembcorp) have inked an agreement to co-develop a research centre at the Nanjing International Water Hub (NIWH), sited at the Sino-Singapore Nanjing Eco Hi-tech Island in Nanjing, China.

The Water Technology Innovation Centre will support joint research with leading Chinese universities and facilitate the commercialisation of projects with Sembcorp and other industry partners such as Singapore’s small-and-medium-sized enterprises and Chinese water technology companies. The collaboration will use water-related intellectual property created by the NUS Centre for Water Research and the Water Technology Innovation Centre.

Sembcorp is developing the NIWH, scheduled for completion by 2018. The water hub, set up as an integrated venue to serve the needs of the Chinese water industry, focuses on facilitating research and development work on waste water treatment, commercialising new treatment technologies, as well as enabling the exchange of industry best practices and innovative solutions for the advancement of the water industry.
Diabetic-friendly bread rich with anthocyanin

Scientists at the Food Science and Technology Programme at NUS Science have created a bread packed with natural goodness that digests more slowly, thus improving blood glucose control.

The new bread, fortified with a natural plant pigment called anthocyanin, has a low digestion rate. The organic compound’s high antioxidant content also offers additional health benefits and may help prevent cardiovascular and neurological diseases, cancer and inflammation.

The first such study where a bread product is supplemented with black rice extract, the findings offer potential for healthier and diabetic-friendly food products.

Anthocyanins occur naturally as pigments in foods such as berries, vegetables like black rice and purple sweet potatoes. Research shows that anthocyanins are rich in antioxidant properties, and help in obesity and diabetes control by inhibiting digestive enzymes, hence lowering blood glucose levels.

Professor Zhou Weibiao, Director of the Food Science and Technology Programme who headed the investigation explained that bread was selected for the study as it forms a staple food and popular worldwide, and brings more societal impact.

He said, “We hope to conduct further studies to incorporate anthocyanins into other food items, such as biscuits. We also want to look at other bioactivities and other health benefits.”

Currently, health-promoting bread mainly incorporates whole grains and fibres to decrease the rate of digestion, among other health benefits.

Despite their antioxidant capacity and associated health benefits, the knowledge of using anthocyanins as an ingredient in food products, particularly semi-solid products, is very limited.

– Prof Zhou Weibiao, Director, Food Science and Technology Programme

In a world’s first, NUS engineers have successfully converted paper waste into cellulose aerogels which can soak up oil and pollutants.

The non-toxic, ultralight, flexible and strong invention can be produced at an extremely low price point and in half the time of current techniques. The porous and low-density material promises wide-ranging applications such as oil spill clean-up, heat insulation and packaging.

Existing cellulose aerogels are made from virgin pulp, but the NUS method uses recycled paper. The green approach consumes 70 per cent less energy, gives out less pollution emissions and requires less toxic chemicals in the chlorination bleaching process.

Team leader Assistant Professor Duong Hai Minh from NUSMechanical Engineering said, “Traditional aerogels are mainly made of silica, which is not environmentally friendly. In contrast, cellulose is low cost and makes up 75 to 85 per cent of recycled paper.”

The hydrophilic cellulose aerogels can absorb oil due to a coating of trimethoxy-methylsilane that makes them repel water. Presently, cleaning of oil spills employs polypropylene-based absorbents; and ease-of-use, as the oil spill does not need to be primed first to separate oil and water.

Building insulation is also another viable application for the aerogels, because of their low thermal conductivity. Once treated, their water-repellant property suits both dry and wet climates, and their structure remains stable for years in tropical climates, explained Asst Prof Duong.

The novel product can also be applied in packing materials to replace non-biodegradable plastic-based materials; personal hygiene products; drug delivery; and medical “plugs” for wounds.

The team has filed a patent for their invention in the US, China, India and Southeast Asia. The NUS Industry Liaison Office has licensed the technology to Bronxculture Pte Ltd for commercialisation.

The truth is out: impatience does make a woman grow old faster.

NUS researchers have scientifically proven that impatient young Chinese women show signs of more rapid ageing at the cellular level. This is the first time that a determinant of decision-making has been linked to shortening of DNA telomere length, an indicator of mortality and ageing-related diseases.

The work, published in Proceedings of the National Academy of Sciences in February, was helmed by Professors Chew Soo Hong from NUS Economics and Richard Ebstein from NUS Psychology.

Impatient young women age more rapidly

The investigators used an incentivised delay discounting activity to determine the extent of impatience of 1,158 healthy Chinese undergraduates at the University. The participants had to decide between receiving $100 the next day, or larger rewards a month later. Those identified as impatient had shorter telomeres, which are the caps at the end of each DNA strand which protect the chromosomes. Telomeres decrease in length each time a cell divides and ages, and once they reach a critical short length, the cell will no longer divide.

The researchers observed that females identified as impatient had shorter telomere length, but no such correlations were found in the male participants. The results were robust after controlling for health-related variables, inclination for risk and lifestyle behaviours.

The NUS team plans to conduct an analysis of the telomere length of older ageing individuals, as well as several interdisciplinary studies involving behavioural economics and molecular genetics.
New members on NUS Board

Three new members joined NUS Board of Trustees on 1 April this year: Mr Loh Chin Hua, CEO and Executive Director of Keppel Corporation Limited; Dr Leslie Tao, Chief Economist and Director of Economics and Investment Strategy, GIC Private Limited; and Mr Wong Fong Fui, Chairman and Group CEO of Boustead Singapore Limited. Mr Loh has more than 25 years of real estate investing and fund management experience spanning Asia, Europe and the US. He joined the Keppel Group in 2002 and founded Alpha Investment Partners, growing its Asset under Management to over $12 billion. He concurrently chairs several companies within Keppel including Kepco Offshore Energy, Keppel Land, and Keppel Infrastructure Holdings.

Dr Tao, who also hails from the investment industry, oversees the team in charge of GIC’s asset allocation, total portfolio construction and identification of key long-term trends. He is a Council Member of the Economic Society of Singapore, a non-profit organisation of economists and other professionals interested in economics; and a Board Member of Pacific Pension and Investment Institute, a global organisation of institutional investors.

Mr Wong, a Co-opted Member of the Entrepreneurship Committee at NUS, has a reputation of being a business turnaround expert. He helped restore the 188-year-old Boustead into a profitable industrial real estate, energy, environmental engineering and technology group. He was instrumental in starting up and privatising Myanmar Airways International, as well as transforming the near-bankrupt conglomerate QAF into a success story.

Said Mr Wong Ng Tiong, NUS Board Chairman, “The University will benefit greatly from their global experience and expertise as we strive to excel as a global university in a rapidly changing higher education landscape, and to differentiate ourselves by making a deep impact through research excellence.”

Mr Wong also thanked three Trustees who have stepped down — Mr Hans-Dieter Bott, former Managing Director of Siemens Private Limited; Mr Chan Chia Lin, Director of Holywell Private Limited; and Mr Han Fook Keng. The Straits Times’ Editor-at-Large of Singapore Press Holdings Limited. Mr Bott and Mr Chan relinquished their positions on 31 March 2016 while Mr Han’s stint with the Board ended on 31 December 2015.

Smart green home for the tropics

On 22 March, Mr Desmond Lee, Senior Minister of State, Ministry of National Development and Ministry of Home Affairs officially launched the NUS-CDL Smart Green Home and NUS-CDL Tropical Technologies Laboratory (T² Lab), the first such programmes dedicated to tropical climate.

The NUS-CDL Smart Green Home, an indoor test-stand real-life environment, will provide a venue for holistic and innovative experimental studies on smart materials, green building technologies and design for sustainable living. The 100m² full-sized home will be used for testing, analysing, evaluating and piloting rapidly evolving smart home innovations in a “plug-and-play” real-life environment, along with experimentation of technology-human interface, using novel smart materials, systems and finishes.

Scheduled for completion by December 2017, the facility will be constructed within a new building at SDE, managed by the School’s Department of Building. The 10m² NUS-CDL T² Lab is designed as an adaptable indoor-outdoor research platform that can be customised to test lifestyle scenarios, space-use configurations and features, as well as leading-edge or emerging technologies. Managed by the School’s Department of Architecture, it will focus on studying ideas relating to themes such as “healthy, green living” and “future lifestyles”.

The new laboratory, expected to be completed year-end, will have the flexibility to address various functions while trials are conducted on high-performance materials and environmental systems.

New centre seeks cure for childhood leukaemia

Children with paediatric acute leukaemia, the most common form of childhood cancers, will be receiving more personalised treatment soon, thanks to promising research being conducted at a new facility at NUS.

The VIVA-NUST Centre for Translational Research in Acute Leukaemia (CenTRAL), officially opened on 4 March, is a partnership between the NUS Yong Loo Lin School of Medicine (NUS Medicine) and VIVA Foundation for Children with Cancer (VIVA). Focusing on paediatric acute leukaemia work, its funding comes from a $10 million contribution from donors and partners brought together by VIVA.

The new centre seeks to improve cure rates and quality of life for children with leukaemia through more accurate disease classification and prediction, and treatment response. It will be led by Associate Professor Allen Yeoh and Professor Daris Campana, both from NUS Paediatrics.

VIVA-NUST CenTRAL will also build on a joint study by Assoc Prof ‘Yoh and researchers from Undsal Dí Onkologia Pediátrica in Guatemala, the Japanese Pediatric Leukemia/Lymphoma Study Group, and St Jude Children’s Research Hospital in the US. The research, published recently in Nature Genetics, found that NUDT15 gene variations inherited by children with acute lymphoblastic leukaemia (ALL) can lead to severe side effects.

The investigation involving 270 children with ALL from Guatemala, and Japan discovered that NUDT15 variants alter the metabolism of mercaptopurine, a class of chemotherapy medication crucial in curing ALL. The children become intolerant of standard drug doses, risking treatment-disrupting toxicity. About 20 per cent of Singapore patients in the trial carry the variants, which are more prevalent in Asian children.

Screening for NUDT15 variants will allow doctors to potentially tailor chemotherapy doses according to a patient’s genotype, with the long-term aim of improving outcomes for all.

NUS President Professor Tan Chorh Chuan said the centre’s opening marked a milestone in the development of more effective treatments for leukaemia. He thanked the support of VIVA, in partnership with the Children’s Cancer Foundation, the Tote Board and Singapore Turf Club as well as the Lee Foundation, “that has enabled us to make such strong progress in our common cause against this cancer”.

Scholarship gift from senior alumni

I hope the recipients will remember that the Scholarship is enabling them to realise their dreams, and at some time in their future reflect on enabling others to achieve theirs, in keeping with the spirit of the quote by William Penn that my father would have read every day, “I expect to pass through this world but once. Any good that I can do, or any kindness that I can show to any fellow creature, let me do it now. Let me not defer or neglect it, for I shall not pass this way again.”

Assoc Prof Kwa Chong Guan ’68 (Arts and Social Sciences)

Associate Professor Kwa Chong Guan ’68 and his sister Ms Kwa Kim Hwa ’73 have made a gift to enable NUS to establish the Mabel and Kenneth Kwa Scholarship, named in memory of their loving and supportive parents. This gift was facilitated by Mr David Ho, President of the National University of Singapore Society (RCS). In recognition of their generosity, NUS named the Kent Ridge Guild House swimming pool complex the Mabel and Soon See Kwa Swimming Complex.

To find out more about making a gift to NUS, call 1-800-DEVLOP (1-800-338-3567), email askdvo@nus.edu.sg or visit www.giving.nus.edu.sg

NUS NEWS

Artic’s Impression of T² Lab

In the not-so-distant future, Singapore residents can look forward to living spaces that answer their personal requirements, complete with smart technologies for an ageing population.

Two new research laboratories dedicated to the study of smart building technologies for indoor and outdoor environments are being set up at NUS, gearing up for the country’s Smart Nation vision. City Developments Limited (CDL) has donated $2.25 million to these programmes and associated research.

The new initiatives are jointly driven by the NUS School of Design and Environment (SDE) and CDL, with support from Singapore’s Economic Development Board.
In the wee hours of 9 March, astronomy enthusiasts gathered on the NUS Football Field with telescopes aimed at the sky while waiting for sunrise.

As the Sun climbed above the horizon, some 3,000 people comprising students, staff and the public gathered to witness the celestial event of the year. The Solar Eclipse Observation, organised by NUS Physics, rounded up the host of activities consisting of astronomy talks, astrophotography exhibition and stargazing.

With the last solar eclipse over Singapore happening seven years ago, the excitement was palpable as the spectators gazed at the Sun through their Solar Viewers and modified overhead projectors. Local astronomers, together with NUS faculty and students, also helped the spectators view the eclipse through telescopes they had set up.

At 7.22am, the Moon started blocking out the Sun's rays. When the eclipse reached maximum obscuration (87 per cent) at 8.23am, the light became noticeably dimmer. Then the sunlight steadily grew brighter until the eclipse ended two hours later at 9.32am.

Those in Singapore only saw a partial eclipse but the Sun was fully blocked out in Luwuk, Sulawesi. A group of eclipse fans from Singapore, including two NUS Physics students, flew to the Indonesian island, and a team member succeeded in beaming a live broadcast of the total eclipse onto a projector screen at the NUS field. The students, Laurentcia Arlany and Edmund Yuen, were studying the bending of light by the Sun's gravitational field, an effect predicted by Einstein's theory of general relativity.

Among those in the crowd were NUS students taking the “Sky and Telescopes” general elective module and NUS Astronomical Society members who had stayed on after an overnight stargazing session.

The next eclipse which will occur in December 2019 will be annular, whereby the Moon covers the Sun’s centre, leaving a “ring of fire” around the Sun’s edges.