THE UNIVERSITY OF HONG KONG
The Review 2018

Contents

Vision

The University of Hong Kong, Asia's Global University, delivers impact through internationalisation, innovation and interdisciplinarity. It attracts and nurtures global scholars through excellence in research, teaching and learning, and knowledge exchange. It makes a positive social contribution through global presence, regional significance and engagement with the rest of China.

Mission

The University of Hong Kong will endeavour:

• To advance constantly the bounds of scholarship, building upon its proud traditions and strengths

• To provide a comprehensive education, benchmarked against the highest international standards, designed to develop fully the intellectual and personal strengths of its students, while extending lifelong learning opportunities for the community

• To produce graduates of distinction committed to academic / professional excellence, critical intellectual inquiry and lifelong learning, who are communicative and innovative, ethically and culturally aware, and capable of tackling the unfamiliar with confidence

• To develop a collegial, flexible, pluralistic and supportive intellectual environment that inspires and attracts, retains and nurtures scholars, students and staff of the highest calibre in a culture that fosters creativity, learning and freedom of thought, enquiry and expression

• To provide a safe, healthy and sustainable workplace to support and advance teaching, learning and research at the University

• To engage in innovative, high-impact and leading-edge research within and across disciplines

• To be fully accountable for the effective management of public and private resources bestowed upon the institution and act in partnership with the community over the generation, dissemination and application of knowledge

• To serve as a focal point of intellectual and academic endeavour in Hong Kong, China and Asia and act as a gateway and forum for scholarship with the rest of the world

A Time of Opportunity

It has been just a few months since I arrived at the University of Hong Kong and I have really enjoyed settling into this warm and friendly community. I am very excited by the great potential of this University, which has been demonstrated by the strong results in all areas of our work over the past academic year. What is even more exciting is that I have arrived at a moment when there are unprecedented opportunities for us to do even better. First, let me review the highlights.

High-achievers and new programmes

HKU admitted more top-scoring students from Hong Kong than any other local university, confirming yet again the attractions of the education that we offer. High standards of excellence are a given and we have worked hard to add value, for instance by aiming to offer every undergraduate an overseas and Mainland China experience by 2022, which we are well on our way to achieving. The University has also multiplied its international partners through exchanges to 44 countries and dual degrees and other programmes with such universities as Sciences Po in France, Cambridge University and my *alma mater*, the University of California, Berkeley.

Interdisciplinarity is also a firm feature of teaching and learning at HKU. This started with the Common Core, which created a mandatory framework for students from different disciplines to explore questions of profound significance to humankind, and from 2019 will expand into a full-fledged programme of Bachelor of Arts and Sciences. Six variants will be offered that will provide students with training in leadership and big data, among other things, and open the door to international internships.

Boost to research funding

Interdisciplinarity is also a core feature of our research strategy, which was refined into the Strategically Oriented Research Themes scheme in 2018 to focus more sharply on our strengths

and the tremendous opportunities arising from the development of the central government's Greater Bay Area vision as well as advances in technology. The University is well placed to take up these opportunities given its track record. We continued to secure a large share of competitive funding from the Research Grants Council (a total $269.4 million in 2017–18 and were participant in all five Theme-based Research Scheme projects, including being project co-ordinator on two of them). Further, 114 of our scientists were ranked among the top one percent in their field by Clarivate Analytics based on citations of their publications. And now, there are even more opportunities on the horizon.

Hong Kong's Chief Executive, Mrs Carrie Lam Cheng Yuet-ngor, announced in her October 2018 Policy Address that the government will invest in a Research Endowment Fund to attract and retain talents in Hong Kong and establish a new Research Matching Grant Scheme. She also allocated more funds to State Key Laboratories, the Technology Transfer Office and other research and innovation activities, and increased the number of healthcare training places and money to upgrade teaching facilities. This is all very welcome news at HKU because it gives us an opportunity to capitalise on our on-going efforts to strengthen our research profile and create innovations and impact from that research. I am confident that these efforts will give us an edge in bidding for these funds and driving us to higher levels of achievement.

Global collaborations

The quality and impact of our work is also being advanced through our engagement with the world outside of Hong Kong. In teaching, as mentioned, we have numerous exchanges, dual degrees and other programmes with institutions around the world and in 2017–18 more than 10,000 visits were made by our students of all academic levels to participate in activities outside of Hong Kong. Our aim is to ensure HKU graduates acquire a broad vision and appreciation of the global challenges of the 21st

President and Vice-Chancellor Professor Xiang Zhang, alongside former Acting President and Vice-Chancellor Professor Paul Tam, at the inauguration ceremony in August to welcome students to the academic year 2018–19.

HKU on July 17, I have met with hundreds of staff, students and alumni. One thing I have instructed my Senior Management Team to do is to drill down deep into the faculties and departments to see where we can make immediate changes to improve people's working lives. Reducing red tape is low-hanging fruit, but it is an area where I think we can make a positive impact. SMARTER@HKU has improved processes for operational matters, such as estates and administration, and we now want to keep the momentum going in processes related to our academic activities. Recent improvements to human resources procedures, such as streamlining the appointment system to make it more speedy, transparent and effective, are also positive steps in the right direction. I believe these sorts of measures will ultimately help our scholars be more effective and benefit HKU as a whole.

At the same time, I am looking at the longer-term future of the University. HKU has the potential to be elevated to a Stanford, Cambridge or Oxford – we have capable scholars, world-class excellence in several academic areas and exceptional students, plus strong support from the Hong Kong community. To get to the next level, we need to recruit even more top scholars from around the world and this will be my priority going forward. The bar is set high, but it is time to raise it higher.

Gratitude and appreciation

HKU's many recent achievements have been the result of groundwork laid by my predecessors, Professor Paul Tam who was Acting President and Vice-Chancellor from January until my arrival in July, and Professor Peter Mathieson, who led the University from 2014 to January 2018. On behalf of the University, I extend our warmest thanks and appreciation for their hard work and dedication to making HKU a university of tremendous potential.

I am excited to be taking up the mantle as President and driving the University forward in this era of so many opportunities, and I pledge to work hard in the coming years to see it reach the fullness of its potential.

Professor Xiang Zhang
President and Vice-Chancellor
December 2018

century. International collaboration also features strongly in our research and in 2018 we signed agreements with the University of Toronto and Tsinghua University to co-fund research activities, adding to our strategic partnerships with such institutions as the University of Cambridge, University College London, King's College, the University of Chicago, Shanghai Jiaotong University and the University of Sydney. In 2017–18 we also had more than 2,400 on-going international research collaborations, which have been shown to multiply the impact of the research for both us and our collaborators as measured by the Field-Weighted Citation Impact. The University also hosted major international summits in 2017–18, such as the 2018 Hong Kong International Artificial Intelligence Summit with Tsinghua University, the Grand Challenges for Engineering Symposium with the US National Academy of Engineering, and the Hong Kong Summit of Global Health Leaders.

Our growing engagement with Mainland China also enriches our work. In April 2018, we hosted the C9+1 Symposium for senior managers, teachers and students from nine top research universities in the Mainland plus HKU to share expertise and discuss collaborations in teaching excellence and innovation. This high-level event included keynote addresses by Mrs Lam

and China's Minister of Education, Mr Chen Baosheng. We also learned in 2018 that Hong Kong researchers can now compete directly in the funding programmes of the central government, without needing a Mainland-based partner as we did in the past. This should expand the scale and scope of our research opportunities, although it also means we face more competitors. However, we have many of the ingredients needed to succeed and I will be working to enhance our strengths, particularly through recruitment of new staff.

Setting our sights higher

The successes of our efforts to provide a world-class education and world-class research has paid off not only in our competition for top students and funding, but in international recognition. Our Dental Faculty is ranked the best in the world by Quacquarelli Symonds (QS), while the Education Faculty is ranked seventh best by QS and fourth best by Times Higher Education (THE). The University as a whole is ranked 25th by QS and 36th by THE. These are strong showings but of course, our sights are always set higher.

Coming here from abroad, I am keen to bring a fresh perspective on how the University can develop its potential. Since arriving at

Students from HKU's Ricci Hall chat with Professor Zhang. His mentor, Professor Andy Tam, once also lived in these residential halls.

DEEP
ENGAGEMENT

The University has been creating new layers of programmes and opportunities, some of them unique in the world, to accelerate opportunities for students to cross both physical and disciplinary boundaries and enrich and expand their learning.

Students enjoy a taste of immersive 360-degree Virtual Reality (VR) in the newly installed imseDOME VR Salon. The Department of Industrial and Manufacturing Systems Engineering, the Faculty of Engineering and the Common Core Curriculum Office set up this unique digital cultural space which is being used to showcase VR films and students' creative work from Common Core courses.

Working on robot parts in the DreamLab. The Faculty of Engineering developed the lab as an innovative space where design concepts can be developed in an interdisciplinary or inter-faculty environment and prototypes made using state-of-the-art equipment.

The University's vision in recent years has been driven by engagement – engagement with people from different communities and cultures, with different disciplines, and with novel ideas, situations and technologies. In 2017–18, this engagement resulted in enormous advances in providing students with a world-class education that pushes at the boundaries and ploughs new ground, particularly in interdisciplinary learning.

The Common Core has been the trailblazer, demonstrating that it is possible to bring teachers together from diverse disciplines to offer joint courses that enrich students' understanding of the biggest problems facing the world, from climate change to big data to how the arts help articulate the human experience. The programme was formally launched in 2012 and in 2018–19 offered 176 courses. The University is now ready to take this approach to the next stage with full interdisciplinary programmes leading to a **Bachelor of Arts and Sciences (BASc)** that will nurture globally minded thinkers and leaders and equip them to address the challenges of today's complex world.

Six variants of the BASc were announced in 2018 that involve all 10 faculties and will be offered from September 2019: a broad-based BASc ranging across the arts, sciences and social sciences; BAScs specialising in Applied AI, Design+, FinTech or Global Health and Development; and a two-year BASc in Social Data Science for senior students. Students of the four-year programmes will undertake foundational modules on critical thinking, leadership training and big data, with the latter delivered in collaboration with Microsoft. They will also have the option of securing an international minor at an institution outside Hong Kong, allied with a summer experience. The best and brightest students will be sought for this programme, which will also link students to internship opportunities with organisations such as Google, the World Health Organization and the United Nations.

The BAScs are not the only teaching and learning innovation. The Li Ka Shing Faculty of Medicine rolled out its **Enrichment Year** in September 2018 in which third-year MBBS students are spending the year in a self-directed programme to prepare them for the demands of the clinical years of study. In this ground-breaking initiative, students can opt to pursue research, undertake an intercalated degree at HKU or a university overseas such as Yale University or Oxford University, study a subject of interest outside medicine, or engage in humanitarian work and service learning (see page 11).

The University also continues to expand options for students to have **learning experiences both in Mainland China and overseas**, with the goal of making these available to *every* undergraduate by 2022. There are different layers to this commitment. Several dual-degree programmes have been launched with institutions such as Sciences Po in France and the University of California, Berkeley. In autumn 2017 we also announced that students of the HKU-Cambridge Undergraduate Recruitment Scheme (Engineering and Computer Science) can now graduate with three degrees: full Bachelor degrees from each university and a Master of Engineering from Cambridge upon successful completion of five years of study.

Exchange programmes are another option for non-local learning. HKU has exchange agreements with 44 countries on every continent and in 2017–18 sent about 1,400 students overseas and 459 to Mainland China and welcomed 1,350 exchange students from these places. More than 80 programmes have been launched with the Mainland, while HKU's partnership with Common Purpose offers leadership training in Manila and Yangon (with plans to add Shanghai and Bangalore in 2019) and the HKU Summer Institute offers courses and internships in cities such as Shanghai, Tokyo and Paris. The University has also been designated a 'super partner' of the University of Sydney, which is hosting 100 undergraduates from HKU every year.

New technology has made it easier for students to continue their learning abroad and has also opened up new possibilities in the classroom. For the Enrichment Year, the medical faculty has developed a social media platform with the Education University of Hong Kong where students share experiences and engage in discussions with their classmates around the world and their faculty-based mentors. The University as a whole has also invested in advancing technology for teaching, in particular video (see page 14), that can be applied in the flipped classroom, massive open online courses (MOOCs), apps for learning and many other ways. Students are benefitting from a new Digital Literacy Laboratory that opened in the Chi Wah Learning Commons in September 2018 where they can develop skills in filming, editing and writing videos for presentation in class.

The **Common Core** is also continuing to evolve and attract interest from outside the University. New Common Core programmes were launched in 2018 that give students opportunities to contribute to research (see page 10). The University Grants Committee has also invited HKU to be a key player in an experiment to share general education and Common Core content across four universities: HKU will deliver seven of the 10 courses, while the Chinese University of Hong Kong, the Hong Kong University of Science and Technology and the Hong Kong Polytechnic University will deliver one course each. Partnerships are also being forged with institutions outside Hong Kong in connection with the Common Core. HKU has invited other comprehensive universities around the world that offer liberal arts foundation programmes to join GLADE – Global Liberal Arts Design Experiments – which will hold a symposium in 2019. The University also formalised arrangements with three Mainland universities to jointly offer Common Core courses, with one week in Hong Kong and two weeks on the Mainland. The latter initiative, called CLASS (China Liberal Arts Summer Sessions), follows a 2017 pilot course with Peking University and will commence in 2019.

CLASS was announced at the **C9+1 Symposium** hosted by HKU in April 2018. This event brought together senior managers, teachers and students from 10 top research universities – nine from Mainland China plus HKU – to discuss key issues in teaching and learning, such as how technology facilitates internationalisation, cross-faculty innovation and entrepreneurship, e-learning, and building student ownership of interdisciplinary projects. The high-profile event included keynote addresses by China's Minister of Education Mr Chen Baosheng and Hong Kong's Chief Executive Mrs Carrie Lam Cheng Yuet-ngor. The 10 participating universities agreed at the event to take turns holding an annual summit and to create more opportunities for academic co-operation between their students and teachers.

Students from nine Chinese universities and HKU gathered for the C9+1 Symposium to promote academic cooperation.

Opportunity on the road to excellence is a firm feature of HKU's curriculum and a key strategy for keeping the University attractive to new students. Students entering HKU today get opportunities to study abroad and in Mainland China, to learn from other disciplines, to try their hand at research, to engage with the community through experiential and service learning and, most importantly, to develop leadership abilities – all in addition to their rigorous academic studies. These opportunities have proven attractive to top-performing students from Hong Kong and abroad, who in 2018 continued to make HKU their top choice.

BEYOND THE CURRICULUM

Activities are being promoted that encourage and recognise achievements beyond formal disciplinary studies to enrich students' learning and personal development.

Left to right: Oscar Chou Hou-in, Alex Fung Ka-chun, Timothy Chan Tao-fo and Justin Chan Ching-him, four members of the Transdisciplinary Team Project investigating public understanding of hepatitis C in both Canada and Hong Kong.

Open Platform for the Common Core

The Common Core has been looking at how to better build opportunities at the nexus of teaching and research, and in 2018 launched the Open Platform Course in which small groups of students apply their research and outreach skills to tackle a common real-world challenge. The first offering, called the Transdisciplinary Team Project, involves six students from the medical and science faculties. They have chosen to investigate hepatitis C as a team, comparing Hong Kong and Canadian residents' understanding of hepatitis C and developing a new diagnostic tool using 3D-printing and microfluidics technology.

Third-year MBBS student, Elaine Tian Yi-ling, is on exchange in Canada where she will survey residents. "This course allows us to take a proactive role in our learning, from selecting the direction of our research to producing outputs that will hopefully make an impact in society. I also enjoy the flexible nature of the course,

which allows me to participate even though I am overseas and even takes advantage of that," she said.

Jasmine Hadiwibawa, also a third-year MBBS student, added: "I chose this course because it was the first time a Common Core course could be taken online and the idea of doing biomedical research for a semester was very appealing."

The Common Core has also initiated the Transdisciplinary Nomadic Researchers scheme for students who have been Common Core Student Ambassadors or participated in the annual transdisciplinary research exchange programme with Utrecht University. These students, most of whom plan to do graduate degrees, are invited to attend academic conferences and other events and respond with reflections, presentations and, when appropriate, publications.

A Year of Enrichment

After months of preparation, the first students to benefit from the Faculty of Medicine's Enrichment Year set off in September 2018. All third-year students have gone 'off book' to pursue self-directed learning activities, such as studying Human Sciences at Oxford University, pursuing an MSc in public health at the London School of Hygiene and Tropical Medicine, doing research at HKU and volunteering aboard a ship, *Logos Hope*, that brings books to remote ports around the world.

"There will be no other block of time in our curriculum, and indeed in our future practice, where we are given free rein to find, investigate and explore our interests. This is a cherished opportunity," said Max Lim Ying-hao, who is spending half the year interning at the WHO and the other half studying international relations and politics at Sciences Po.

Venice Ho Wing-tung is spending half the year doing research at the School of Chinese Medicine and the other half studying philosophy at Ludwig Maximilians Universität in Germany. "I have chosen this research topic because traditional Chinese medicine is particularly relevant in Hong Kong and I wish to learn more about it. For the trip to Germany, I believe the lengthy period abroad will teach me things I can never learn at home and take me out of my comfort zone."

Cyrus Yeung Chun-wing welcomed the 'once-in-a-lifetime' opportunity to do research on immunology and DNA repair as a Visiting Undergraduate at Yale School of Medicine. "The Enrichment Year can propel me into becoming a clinical scientist and enable me to interact with students and scientists from around the world."
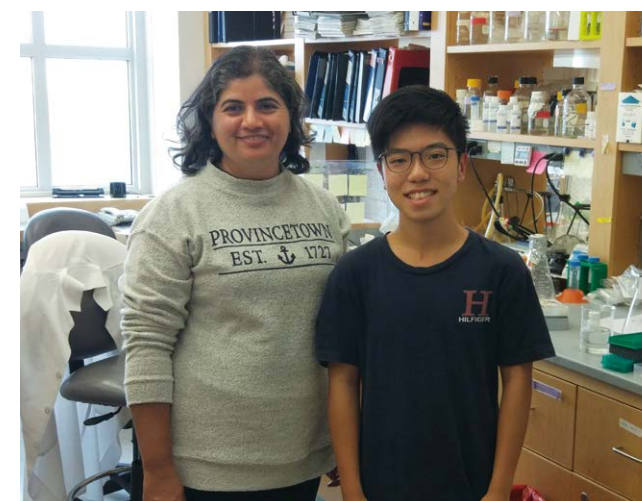
Cyrus Yeung at Yale with his research mentor Dr Rashu Seth.

One of HKU's eight Asian Games 2018 medal winners, Bailee Brown won a bronze in the triathlon.

Sporting Achievements

Elite athletes from HKU gave a tremendous performance at the 2018 Asian Games in Indonesia, winning eight medals including gold in men's rugby, silver in women's windsurfing and men's fencing, and bronze in triathlon, swimming, rowing and fencing. A total of 16 students and 16 alumni participated in the Games.

The results came in a year when sport and exercise on campus gained greater recognition. In autumn 2017, HKU signed a Memorandum of Understanding with the Hong Kong Sports Institute to formalise co-operation in developing dual career pathways for elite athletes and hosted a University Grants Committee Conference on 'Springboard to Success – Balancing University and Elite Sports'. HKU established Hong Kong's first university Sports Scholarship Scheme in 1995 and more than 430 athletes have benefitted. The University is now exploring how to enhance this scheme with financial or in-kind support.

The University's Centre for Sports and Exercise also made good progress promoting exercise for health on campus, with the University Health Service now referring patients to the Centre for exercise programmes to address health issues. The Centre also collaborates with scholars in the faculties of Social Sciences and Medicine to run exercise trials and interventions. In May 2018, HKU became the first in Asia recognised as a Gold Level Campus under the global Exercise is Medicine® on Campus (EIM-OC) initiative of the American College of Sports Medicine. The Centre and HKU Global also launched HKU's 2018 'Around the World' Walking Challenge, in which more than 1,400 staff, students and alumni from 18 countries collectively clocked up enough steps in one month to circle the globe seven times.

OUT OF HONG KONG

Students are encouraged to engage with other places and cultures through internships, exchanges and capitalising on the opportunities presented by technology.

Medical students with their Mainland counterparts on a co-learning experience in China.

Two Sides of Medicine

Five medical students joined their counterparts from Peking Union Medical College (PUMC) in the summer for a 10-day co-learning experience that brought them to one of the top hospitals in the country and one of the most impoverished regions. The Pilot Mainland Experience Scheme for Post-secondary Students was launched by the central government as part of the effort to address poverty alleviation through health by raising awareness of trainee healthcare practitioners. HKU and PUMC were invited to be the trailblazers.

They first visited PUMC Hospital, which was ranked the top hospital in the country from 2009 to 2017 by Fudan University. The hospital has about 5,000 medical staff and attracts patients from across the country. "The lobby of the PUMC Hospital was so crowded that for a second, I thought I had arrived at a Mainland train station prior to the commencement of the winter holiday," student Tsui Yat-yan reflected.

They then visited Yonghe County, one of the four poorest in China, where they were struck by the resource challenges, staff shortages and

the cost to patients who had to travel to better-equipped hospitals for complicated treatments. The experience left a deep impression on the students. "As a medical student in Hong Kong, there may not be much we can do yet to help them, but we can raise awareness that there are still people out there suffering from disease who are not able to receive basic medical services," Tsang Siu-yu said.

Chatting with members of the community in Yonghe.

Xiao Zhilin (left) and colleagues at the International Red Cross headquarters in Geneva.

Business in Geneva

The Faculty of Business and Economics has partnered with the International Committee of the Red Cross (ICRC) to select senior undergraduate or taught postgraduate students for a year-long traineeship at ICRC headquarters in Geneva, where they assist the organisation's Economic Advisor, with a special emphasis on work involving Asian affairs.

Xiao Zhilin, who graduated with a BBA in 2018, is the first to benefit. She joined the ICRC in June, immediately after completing her studies, having previously led the Ghana Education and Health programme and Nepal Earthquake Relief programme at HKU, among other achievements. "Pursuing a business major does not mean you only work in banking or consulting. There are many other career choices, especially nowadays because private sector knowledge and experience are more and more appreciated in the public sector," she said.

Since joining the ICRC, Miss Xiao has done research on business and human rights issues, attended meetings on business and conflict-related topics, and supported the Economic Advisor's outreach missions to such places as South Africa, Australia and China.

She also travelled to Argentina as the Chinese delegate for the G(irls)20 Global Summit and hopes to make a documentary on female role models from around the world. "It is estimated that in 2030, when I will be 34 years old, the share of global poor living in fragile and conflict-affected situations will swell to almost 50 per cent, up from 17 per cent today. I want to work to solve this," she said.

Real Talk

Practice makes perfect in language learning and therein lies a challenge. How do you offer students an authentic chance to speak a language that is not spoken in their community? The French programme of the School of Modern Languages and Cultures has turned to technology for help.

In early 2018 it trialled the online SpeakShake video-calling platform with the Institut National des Langues et Civilisations Orientales (INALCO) in France. Over six weeks, French learners at HKU spoke regularly with French students learning Chinese at INALCO, which not only gave them a chance to practise the language but learn more about the culture. The programme, which was supported by the Institut Français and the Consulate-General of France in Hong Kong and Macau, was a pilot for developing personalised learning paths for students of the French programme.

Alison Tam Pui-san was a third-year BA student when she participated in the pilot project. "In a class setting teachers usually speak really clearly and pace themselves, but speaking to a local person casually gave us a chance to get to know how people speak in a colloquial situation, which is faster and with more slang," she said. Anthony Wong Chuan-hun, also a third-year BA student, said it gave them an opportunity to teach new language as well as learn. "One example was 'GPA' [grade point average]. This term is not used in France so I had to explain in French what it means and why it is important for students here in Hong Kong," he said.
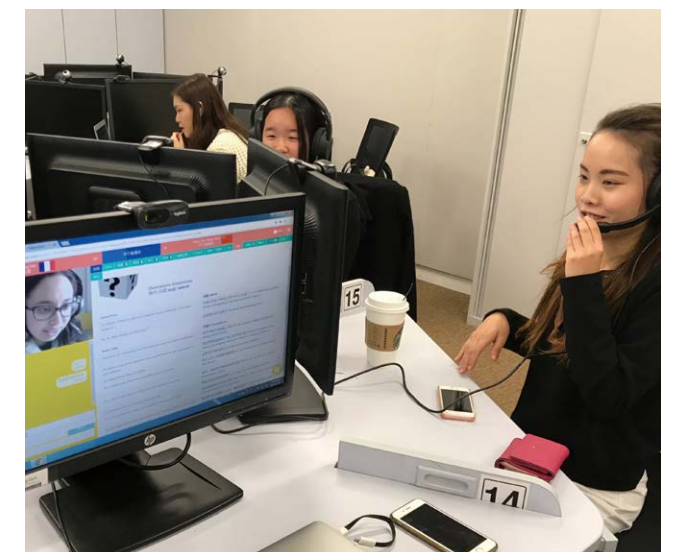
Hong Kong students practise their language skills via Skype with French students in France.

Lights! Camera! Action!

HKU's Technology-Enriched Learning Initiative (TELI) expanded in several directions in 2017–18, enabling staff and students to make more seamless and effective use of technology.

Hardware: The Teaching Innovation Production Studio has opened, where teachers can make videos and other teaching materials using high-quality film and audio recordings, a large green screen and technical support from TELI staff. The studio also has two smaller DIY stations where teachers can record lectures on their own against pre-created backdrops. Students are also being catered for with the new Digital Literacy Laboratory that opened in September 2018 and provides space, equipment and technical support for students to make their own videos, which has become a requirement in a growing number of courses, particularly in the Common Core.

Software: TELI has developed an innovative online learning platform that makes videos more interactive. Users can input questions and comments as they watch videos and these are time-stamped and saved. A chatbot is now under development that would be able to answer some questions and refer the rest to a forum where teaching assistants or other students could respond.

MOOCs: The University's growing number of MOOCs (massive open online courses) is fuelling demand for video production and other technological support from TELI. HKU now has 15 MOOCs on edX and Coursera, including Asia's first FinTech MOOC which was launched in May 2018 and attracted more than 30,000 enrollments from every country in the world, including Standard Chartered Bank in Hong Kong which is using the MOOC for staff training. The FinTech MOOC will be combined with two upcoming MOOCs on blockchain and business ethics for a professional certificate to be offered in 2019. In addition, our Dinosaur Ecosystems MOOC was selected as one of edX's top 10 courses in 2018 out of nearly 2,000 offered globally.

And More: TELI is also producing teaching apps, supporting University events such as the C9+1 Symposium, helping scholars produce short videos on research as required by scientific journals, and providing paid-for services for other organisations to support its work, such as a coming Hong Kong Jockey Club-funded project to help NGOs digitise their work flows. "We've expanded very quickly because there's a strong demand for technology to support innovation. If teachers want to make more use of technology, we can make it happen," said Professor Ricky Kwok, Associate Vice-President (Teaching and Learning).

The Teaching Innovation Production Studio (TIPS) is equipped with top quality film and audio recording equipment. Teachers and students, with expert tech help from TELI staff, can make video teaching materials, record lectures or create footage for MOOCs.

5** in 9 subjects

HKU admitted the first student ever to score 5** in 9 subjects in the HKDSE, as well as 8 of the 11 students to score 5** in 7 subjects. HKU also had the highest average admission scores across all Hong Kong universities.

20,000+ applications

For qualifications other than HKDSE.

10,464 outbound HKU students

Covering all overseas learning activities of all durations and academic levels. Students went to Mainland China and countries in all five continents.

99.5% employment

For the 12th consecutive year, graduates achieved full employment (including the pursuit of further studies). The figure is for UGC-funded students who graduated in 2016–17.

SEIZING THE MOMENT

Years of testing the waters and pushing at the boundaries have positioned the University to make the most of fantastic new opportunities for deeper engagement with Mainland China and for ensuring our research has deeper impact through cross-disciplinary collaborations.

In 1997, HKU's School of Public Health and Hong Kong's Department of Health established the 'Children of 1997' birth cohort study as a long-term project to track the health of more than 8,300 babies born that year. This year those children turned 21 and the Li Ka Shing Faculty of Medicine had a party to celebrate. The study has provided valuable health data that has resulted in more than 80 research papers published so far. The results have also contributed to public health policies such as a ban on smoking in indoor areas and the promotion of breastfeeding.

HKU-Zhejiang Institute of Research and Innovation represents one of HKU's many partnerships with Mainland China.

2018 was a landmark year for researchers in Hong Kong. The Hong Kong government announced in October that $20 billion would be allocated to the Research Endowment Fund and it also launched a new $3-billion Research Matching Grant Scheme. Moreover, the central government made it known that local scholars could now compete for national research funding without an obligatory requirement of having a partner on the Mainland. These measures will enrich, deepen and diversify the research funding sources and unquestionably raise the competition and standard of research in Hong Kong. HKU is well-prepared to take up the opportunities and challenges.

Over the past year, we have re-examined our research strategy in light of technological advances, society's hunger for innovation, and the growing demand to show impact in research. The former (Emerging) Strategic Research Themes scheme, which provided seed funding for interdisciplinary research, came to a close in 2017 and has evolved into the new **Strategically Oriented Research Themes (SORTs)** scheme, which includes other areas of strength, emerging areas and areas of potential at the University.

Fourteen individual SORTs have been identified and grouped into four areas: SmartBio & HealthTech (SH), with themes such as chemical biology for drug discovery and precision cancer medicine; Future Innovative Technologies (FIT), such as electric energy conversion and utilisation; Smart Systems & Sustainable Society (S^4), such as mitigating mega-city hazards; and Intelligence,

Data, E-Commerce & Automation (IDEA), such as FinTech, RegTech and the future of finance, and artificial intelligence to advance well-being and society. Avenues for translating this research into impact are being developed, such as a collaboration with Institut Pasteur and the Hong Kong Science and Technology Parks Corporation to establish a joint biomedical R&D centre on key healthcare challenges, particularly immunology, infection and personalised medicine. Identification of the SORTs themes will inspire new ideas and novel approaches in solving some of the most pressing and complex problems of the 21st century.

Gearing for **quality and impact** drives our research towards excellence and value and leads to a spectrum of benefits to society. The elements of assessment in the University Grants Council's Research Assessment Exercise 2020 include 15 per cent focused on impact. The University has been at the forefront in balancing research outputs with impact. In 2010 we opened our Knowledge Exchange Office, which has played an important role in creating pathways for impact (this work is continuing and described in the Knowledge Exchange chapter). Over the past five years, we have held workshops, invited experts and built up capacity to translate research into impact and collect evidence of that impact. Our Technology Transfer Office has also been very resourceful in intellectual property protection, innovation and commercialisation. These preparations and on-going efforts have brought impact deep into our research culture and are already bearing fruit, as the examples in the following pages illustrate.

A critical factor in maximising research impact at the academic level is through **collaborations** with scholars in Hong Kong, Mainland China and abroad. Using the Field-Weighted Citation Impact as a metric, papers co-authored by, for example, scholars from HKU and the University of Sydney had a citation impact of 6.29, against 1.62 for papers authored solely by HKU authors and 1.80 authored solely by Sydney authors. More such collaborations are being encouraged through strategic partnership agreements between HKU and global universities. In 2018, for instance, new agreement was reached with the University of Toronto and Tsinghua University to co-fund research activities. An agreement with MITACS, a national non-profit research organisation in Canada, will provide HKU research postgraduate students with access to internship opportunities throughout the country. HKU and Tsinghua University also signed a separate agreement in October 2018 for more in-depth collaboration on research and other activities. In addition, HKU has strategic partnerships with University of Cambridge, University College London, King's College, the University of Chicago and Shanghai Jiaotong University, the University of Sydney and so forth.

Our interactions with **Mainland China** are growing in importance. The ability to apply directly for national funding, with or without a Mainland-based partner, has enormous potential to create paths for larger projects within a much larger competitive field. This will provide a healthy challenge for the University to focus on its strengths and cutting-edge fields, for which we are well-positioned. In November 2018 five laboratories jointly operated by HKU and the Chinese Academy of Sciences (CAS) were rated as 'distinguished' or 'good' in the Fifth Assessment of the Hong Kong-CAS Joint Laboratories. These included labs for biomaterials, chemical synthesis, chemical geodynamics, new materials, and stem cell and regenerative medicine. HKU is also continuing to develop its physical presence on the Mainland. The HKU-Zhejiang Institute of Research and Innovation appointed its first full-time director in September 2018, while a purpose-built 1,200-square-metre laboratory was under renovation in Shenzhen's Virtual University Park and will open in 2019. The HKU-Shenzhen Hospital, which received 3A status from the Guangdong government in 2017, has received approval for conducting Phase I-IV clinical trials. Other examples of the University's growing presence in the Mainland include the establishment of the HKU-Guangdong Pharmaceutical University Innovations Platform in Zhongshan focused on biomedical research and technology (see page 23) and HKU's leadership role in a new alliance of Shanghai and Hong Kong universities, whose members will include the top universities of both places.

Forging ties abroad has created new synergies **closer to home**. The University places a premium on grooming young scholars and in 2018 welcomed the announcement by the University Grants Council to waive the tuition fees of full-time research postgraduate students from Hong Kong to encourage higher pursuits and rewarding careers. We also continue to take the lead in promoting research integrity and are preparing to co-host the World Conference on Research Integrity in Hong Kong in 2019 with RMIT University of Australia.

Our scholars across all fields continue to produce outstanding work and had a very strong showing in the Research Grants Council's major funding schemes for 2017–18, securing $269.4 million in competitive research grants and participating in all five new projects funded in the Theme-based Research Scheme (including as project co-ordinator for two of them). HKU also successfully competed for and secured 20 projects under the National Natural Science Foundation of China in 2018.

Taken together, the renewal of our research strategy, dual focus on quality and impact, expanding network of international collaborations, deeper engagement with Mainland China, grooming of future talent and our steadfast commitment to excellence and integrity are providing a fertile ground for HKU research at a most opportune time. Our potential is on an upward trajectory at a time when, more than ever, society needs new solutions and insights to navigate rapid and exciting change.
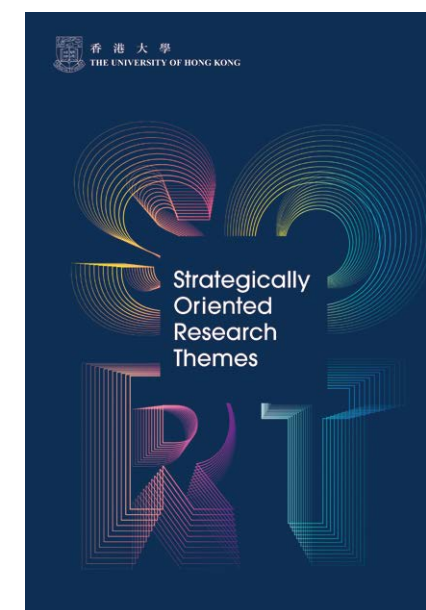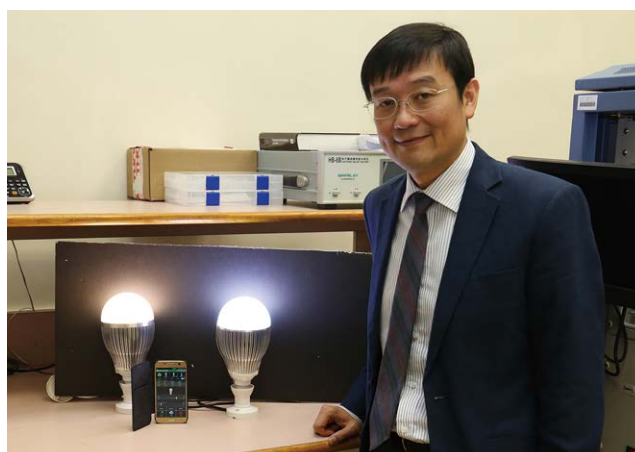

Strategically Oriented Research Themes (SORTs) is a new initiative to advance HKU's research impact worldwide.

Innovate and Translate

HKU scholars published 5,146 peer-reviewed (refereed) publications in 2017–18 and raised the impact of their research through collaborations across disciplines and with community partners.

Leader in sustainable LED lighting, Professor Ron Hui Shu-yuen.

Lighting Breakthrough

A Theme-based Research Scheme project on sustainable lighting has resulted in a new LED system that not only has high energy efficiency and luminous efficacy, but also a lifetime exceeding 10 years and a high content of recyclable materials (more than 80 per cent). This is the first sustainable LED street lighting system in the world to tick all of these boxes.

The system was developed by Professor Ron Hui Shu-yuen, Philip K.H. Wong Wilson K.L. Wong Professor in Electrical Engineering, and Chair of Power Electronics in the Faculty of Engineering, and tested for three years in more than 100 street lamps in Heshan City in Guangdong province. The system has proven to be highly reliable and the company that has licensed this technology now plans to extend it to more than 8,000 street lamps in Mainland China.

At the 46th International Exhibition of Inventions of Geneva, held in April 2018, the system was awarded a Gold Medal with Special Recognition by the International Jury of Experts and the Prize of Patent Office of Cooperation Council for the Arab States of the Gulf – GCCPO. Professor Hui and his team have also developed other lighting innovations such as a smart system for precise dimming and colour control of bi-colour LED lamps, as well as various applications for their research.

Learning What It Takes to be a Digital Citizen

A multi-disciplinary, multi-institutional research project is being led by Professor Nancy Law of the Faculty of Education to develop deep, evidence-based understanding of the impact of digital media on the everyday lives of children and youths, and on their development as citizens in a technology-intensive, globally connected world.

The five-year project was the first education-focused project to be funded under the Theme-based Research Scheme, awarded in 2016 with a total grant of $22.2 million.

Professor Law's team includes scholars from HKU and the Hong Kong University of Science and Technology as well as international scholars, who have expertise in education, the humanities, information science and computer engineering.

Their work is focused on five goals: develop a conceptual framework for digital citizenship; develop age-appropriate instruments for assessing digital citizenship among youths aged seven to 22; identify and further develop indicators for digital technology use, environments for formal and informal learning interactions, and activities likely to influence digital competence; develop game designs that foster digital citizenship in selected contexts for children and adolescents; and conduct longitudinal studies on the development of digital citizenship, which could have a possibility of being continued beyond the project's lifetime.
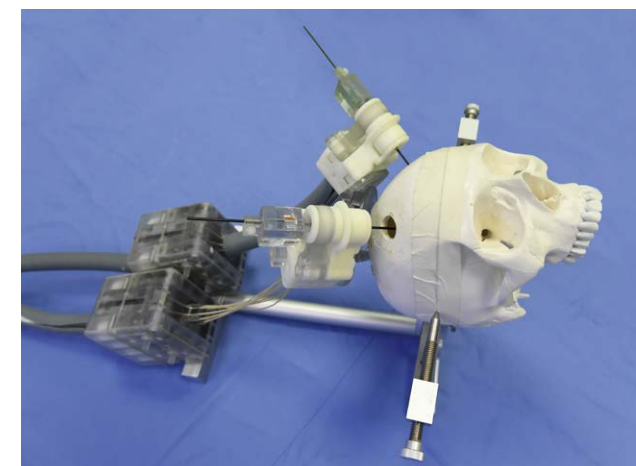
In 2018 the project began its main data collection exercise. It also jointly organised a course on cyber-wellness and basic game design skills for primary and secondary school students, in collaboration with the Hong Kong Playground Association, Hong Kong Education City and Microsoft Hong Kong.

An MRI Robot to Improve Brain Surgery

A team of HKU mechanical engineers has developed a robot capable of performing neurosurgeries inside a magnetic resonance imaging (MRI) scanner. The innovation won the team the Best Conference Paper Award at the largest international forum for robotic scientists, the IEEE International Conference on Robotics and Automation, held in May 2018 in Australia. The lead author was PhD student Guo Ziyan, who is the first female lead author of a Best Paper at the conference since the award was established in 1993.

The MRI robot can perform neurosurgeries.

The HKU team worked with professors of surgery from the Chinese University of Hong Kong to develop a system that is driven by liquid and does not interfere with the powerful magnetic field of MRIs, and used it to perform deep brain stimulation to treat Parkinson's disease. In conventional surgery, patients would need to be awake to ensure the electrode placement was going well, but with the robot, the surgeons can guide the procedure while patients are under general anaesthesia.

"The success of this project represents a major step towards safer, more accurate and effective brain surgery. It is believed all these components can also be applied to other interventions requiring MRI guidance, such as cardiac catheterisation and prostate and breast biopsies," said Ms Guo, who was elated by their conference win. "After stepping down from the stage, I started to think how to keep this momentum and present more impactful work in future."


Guo Ziyan and her team (left to right) Dong Ziyang, Brian Lee Kit-hang, research supervisor Dr Kwok Ka-wai, Justin Ho Di-lang, Cheung Chim-lee and Jacky Fu Hing-choi.

Common Ground: Mainland Engagement

Mainland engagement is an important focus for HKU, particularly after the announcement in 2018 that Hong Kong-based scholars can now apply directly for national grants. In 2017–18 our researchers participated in 1,930 joint publications with academic and industry partners on the Mainland and received RMB 25.26 million in joint grants.
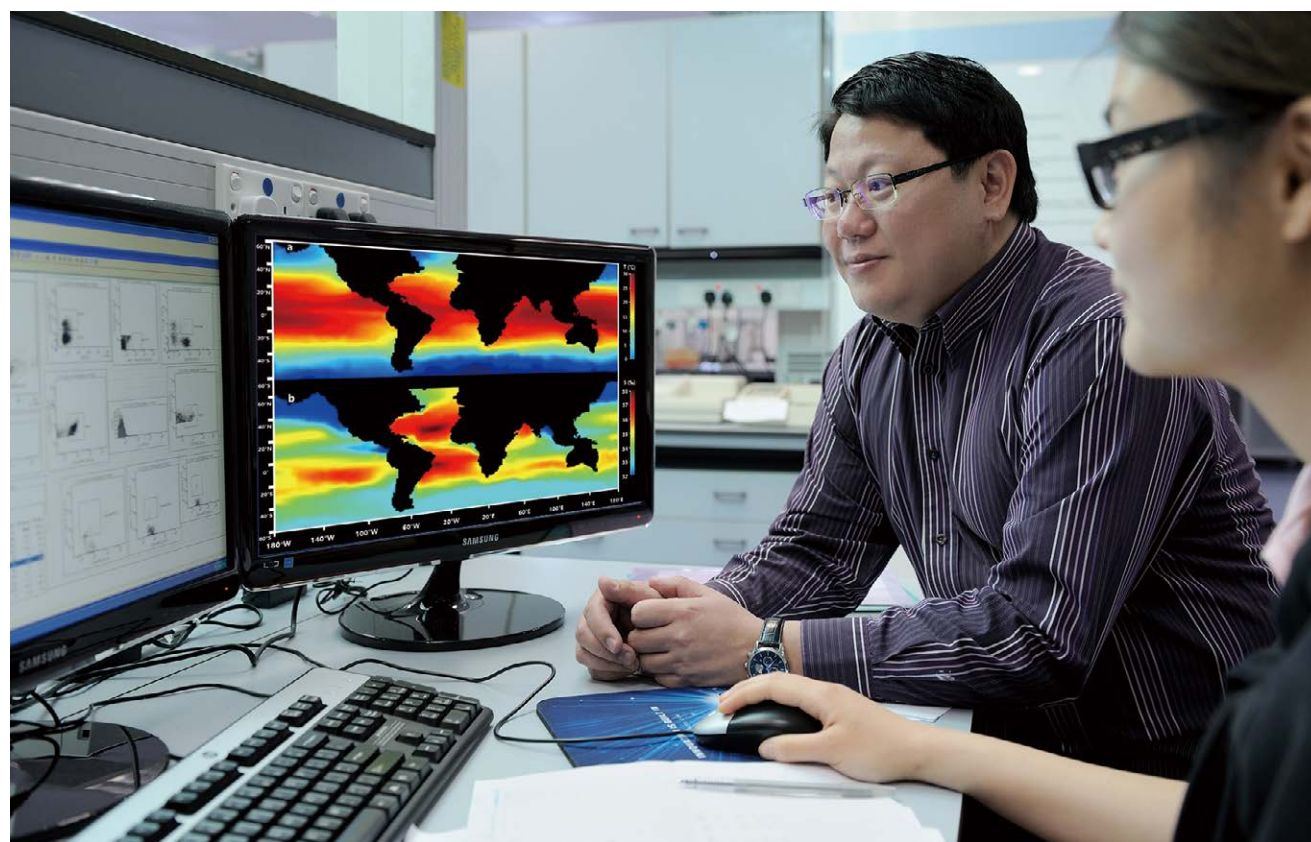
Professor Kenneth Leung and a member of his team study the global water quality data their new tool has revealed.

A Better Test for Water Quality

A new tool for determining water quality criteria (WQC) for toxic metals in both fresh and marine waters and under differing temperatures, has been developed by Professor Kenneth Leung of the School of Biological Sciences and Professor Wu Fengchang of Chinese Research Academy of Environmental Sciences.

The current WQC have been derived from testing in fixed laboratory conditions, which may not be protective to marine ecosystems because conditions such as temperature and salinity vary across different geographic regions and even seasonally within the same region. These changes can substantially influence the toxicities of metals to marine organisms.

Professor Leung and Professor Wu overcame that limitation by developing a model that takes account of variable temperature and salinity levels. They then tested it with real-time environmental data of sea surface temperature and salinity from different parts of the world to derive provisional site-specific WQC for more than 30 metals and metalloids. The results indicated metal toxicities to marine organisms generally increase with warmer seawater temperature and when the salinity increases or decreases from the optimum level. Professor Leung noted that their method had other benefits, too "We can reduce the number of toxicity tests, use less chemicals in the tests, kill fewer animals, and greatly save money and time involved in testing," he said.

New Leukaemia Treatment

An international team of scientists led by Dr David Li Xiang from the Department of Chemistry has developed a chemical inhibitor against the trigger of acute myeloid leukaemia (AML), a fast-growing cancer that attacks bone marrow and blood cells. Their discovery opens a new avenue for treating this life-threatening disease.

Dr Li and colleagues from Tsinghua University, the Rockefeller University and the University of Texas MD Anderson Cancer Center zoned in on ENL, a recently identified leukaemia-boosting protein. ENL contains a small domain called YEATS. Just as a scanner reads barcode, the ENL YEATS recognises special 'tags' (known as acetylation) on our genome to cause faulty activation of cancer-promoting genes in human AML cells. Taking an interdisciplinary approach, Dr Li's team developed the first-in-class ENL inhibitor that was able to successfully tune down the cancer-promoting gene expression in human AML cells. Moreover, the effect was enhanced when it was applied together with experimental anti-leukaemia drugs, suggesting a possible combination therapy strategy.

"There is still some way to go before we can develop a drug to cure patients with AML, but we will continue exploring the therapeutic potential of inhibiting ENL in leukaemia as well as other cancers," Dr Li said.
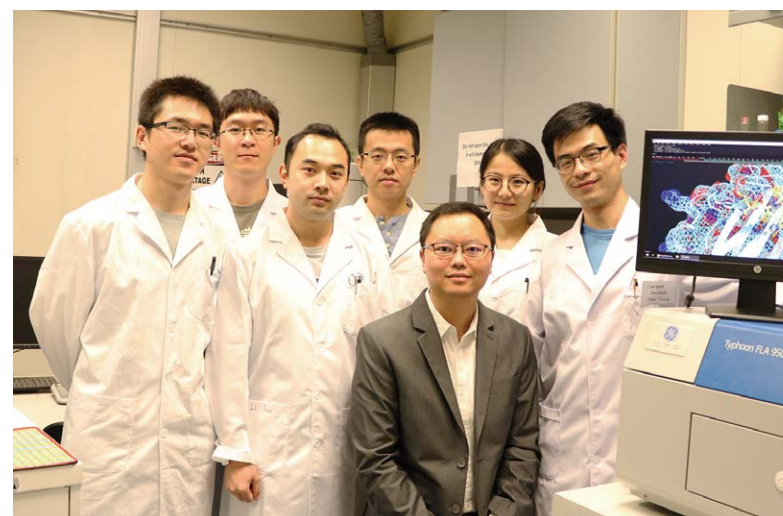
Dr David Li Xiang and his research group at the Department of Chemistry.

Professor Paul Tam speaks at the launch of the new GDPU-HKU Innovations Platform in Zhonghshan.

Platform for Biomedical Innovation in Greater Bay Area

HKU and Guangdong Pharmaceutical University (GDPU) have established a new platform in Zhonghshan for translating research into applications, called the GDPU-HKU Innovations Platform.

The Platform will leverage HKU's research excellence and cutting-edge technologies, and GDPU's expertise in translating biomedical discoveries into applications and operating an incubation facility, to become a significant innovation centre in the Greater Bay Area.

Within five years, the Platform is expected to incubate at least 10 HKU technologies and host at least 50 spinoff companies and become a national-level incubator.

Researchers and students are both expected to benefit from the exchange and collaboration opportunities with biomedical industry clusters based in Zhongshan City. The initiative is supported by the Zhongshan Municipal People's Government and will have three core units: an incubation facility, joint laboratory and technology transfer unit. It will also house a satellite branch of HKU's State Key Laboratory of Pharmaceutical Biotechnology.

STUDENT RESEARCH SUCCESSES

The Graduate School continued to provide training and other opportunities for research postgraduate students to develop essential skills, such as big data analysis and effective writing, and to explore career pathways. The vast majority of students also are offered opportunities for international or Mainland China experiences.

Winners of U21 Graduate Collaborative Research Awards (left to right) Zhou Hui, Kanmani Chandra Rajan and Yulia Nesterova.

International Collaborations Open up New Opportunities

HKU PhD students have made a strong showing in the Universitas 21 Graduate Collaborative Research Awards, through which students from the organisation's 27 partner institutions around the world are encouraged to work together on research projects.

HKU students received three of the six awards for 2017–18 and four of the 14 awards offered in the previous two rounds.

Among the recent winners, Yulia Nesterova in education is undertaking a project on teacher perceptions of indigenous learners in Taiwan with students from the University of Melbourne and University of Auckland. "The grant will provide financial support for us to work together. It's a necessary step to a large-scale project on teaching for reconciliation," she said.

Kanmani Chandra Rajan in biological sciences is investigating Hong Kong oysters as a model for studying the effect of ocean acidification.

Her immediate plans include organising training workshops to study the oyster shell's mechanical properties. "This is one of my passion projects where I would like to share the techniques I have learned," she said.

And Zhou Hui in civil engineering is developing a multi-user, voice-driven navigation system for fire emergency response with students from the University of Auckland and Shanghai Jiaotong University.

"This grant will help me to improve my interdisciplinary research and analytical skills and also my communication, teamwork and leadership skills," she said.

Award-winning researcher Lai Hei-ming (right) with Honorary Professor Wu Wutian.

Kudos for Undergrad

A desire to clarify his understanding about neuroanatomy led final-year MBBS student Lai Hei-ming down a deep path of research that resulted in publication in the prestigious journal *Nature Communications* and national honours.

"I volunteered to work as a part-time honorary research assistant in Professor Wu Wutian's lab because I was confused about what I had studied and wanted to see the brain circuitry for myself," he said.

Working in the evenings and sometimes through the night, he began to test solutions for tissue clearing, an emerging field that turns tissues transparent and makes their intricate structures visible.

One of the more unusual things that inspired him was being served over-cooked eggs – he began to use boiled egg whites to test different chemicals and finally discovered one that could denature tissue proteins, now a key ingredient in an invention by his team called OPTIClear. OPTIClear is expected to have application in testing for a wide range of diseases and was recently awarded a Gold Medal in the 46th International Exhibition of Inventions of Geneva.

Lai, who graduated in 2018, was lead researcher on the study which also involved researchers from HKU and Imperial College London. In August he was named one of the top 100 young researchers in China in the 11th China Adolescents Science and Technology Innovation Contest.

2,425
on-going research collaborations
With partners on all five continents in 2017–18.

114
world-leading scientists
Ranked among the top 1% in their fields based on the number of citations of their publications, according to Clarivate Analytics (as of April 2018).

$269.4 million
For new RGC Competitive Research Grants Projects.

$794.3 million
funding from other sources
HKU also participated in all RGC Theme-based Research Projects awarded in 2018. Other funding sources include government, industry, non-government organisations and other local and non-local sources. New contract research projects for government and industry amounted to $175.2 million in 2017–18.

PATHWAYS TO IMPACT

The University is providing funding, training and infrastructure to promote the sharing of its knowledge beyond academic circles and support activities that lead to impact in the community.

Children having fun while learning about the value of our rivers and the importance of water conservation during a Water Fun Fest at the HK SciFest 2018. Nearly 12,000 people attended the event, which was just one facet of the $14.7-million Jockey Club Water Initiative on Sustainability and Engagement (JC-WISE) project that is being hosted by the Faculty of Social Sciences (see also p 30).

iDendron is a hub where students, staff and alumni can meet to share ideas, develop start-ups and build their entrepreneurial skills. By October this year, just 12 months after its launch, iDendron had played host to 42 fledgling companies.

Knowledge generated from the University, whether through research or teaching, needs pathways into the community to be able to achieve impact. The University takes a broad view of what those pathways can be, covering knowledge exchange and community engagement on one hand and technology transfer and entrepreneurship on the other. This wide-ranging approach recognises that not all forms of impact fall under the definitions of 'impact' adopted by the University Grants Committee for its 2020 Research Assessment Exercise (RAE). The latter focuses on impact underpinned by research produced by the University within roughly the past 20 years that also has supporting evidence on the positive changes made in society (see Research chapter for details). It is not always straightforward to gauge the impacts of raising awareness and sharing knowledge, but these activities are valuable in enriching the community. Impact can arise with the opportunities in tomorrow's uncertain world; our approach is therefore in raising awareness, creating multiple pathways, deepening capabilities and widening our knowledge bases. HKU has been the leader in Hong Kong in promoting and valuing impact in all its forms from our academic activities.

In terms of **impact assessment**, the University has been building our scholars' capacity to translate research, knowledge exchange and technology transfer activities into impact and record the results. In 2013–14 the Knowledge Exchange Office (KEO) began offering workshops on preparing and writing impact case studies

led by experts involved in the UK's 2014 Research Excellence Framework, on which the 2020 RAE is modelled. Five such workshops were held in 2017–18. It also conducted a special funding exercise during the year, which supported 19 RAE co-ordinating teams from different faculties and units of assessment to collect impact evidence for completed research or KE projects to facilitate their preparation of impact case studies for RAE 2020.

The KEO also funds **knowledge exchange projects** and in 2017–18 it supported 52 projects carried out by HKU scholars and 33 projects carried out by students. It continued to honour the best efforts through the annual Knowledge Exchange Awards. Other areas of the University also promote knowledge exchange, such as the HKU Scholars Hub which added pages for research postgraduate students in 2018 to give them a profile and make their publications accessible to the public, the Asia Global Institute which brings leading figures to speak on topical issues in open forums, and the scholars and the Technology-Enriched Learning Initiative that are behind HKU's MOOCs (massive open online courses – see page 14) which are offered on the Coursera and edX platforms. To signal the importance of KE to HKU's mission, the University approved KEO's proposal to make KE explicit and articulate the KE elements in its promotion and tenure criteria for professoriate staff, which was implemented in spring 2017.

The University also provides tangible support for **technology transfer** activities, such as commercialisation of research and partnering with industry, through the Technology Transfer Office (TTO). In 2017–18 the TTO showcased HKU inventions at international events, including the 46th International Exhibition of Inventions of Geneva where HKU inventions won eight awards, the 2018 TechConnect World Innovation Conference and Expo where they won two awards, the 2017 China Hi-Tech Fair in Shenzhen, and the 2017 InnoCarnival in Hong Kong. The TTO also facilitated strategic partnerships, such as the HKU-Guangdong Pharmaceutical University Innovations Platform (see Research chapter). In June 2018, the TTO also published a bilingual guidebook, called *An Inventor's Guide to Technology Transfer*, that covers everything from patent protection to marketing and funding sources and is aimed at HKU researchers and staff and anyone interested in understanding the tech transfer process at HKU. These were new activities and unprecedented accomplishments in our history.

Entrepreneurship also comes under the TTO's remit and is fostered through iDendron, which opened in October 2017 as a hub where students, staff and alumni can identify partners and mentors, test-bed their ideas, develop start-up companies and build up their entrepreneurial skills. As of October 2018, iDendron was at near-full capacity in hosting 42 companies, and holding workshops, talks and various educational and pitching events almost weekly. iDendron is also the base for DreamCatchers, which provides $100,000 in seed money for start-ups through the annual DreamCatchers 100K event – in 2018, 85 applications were received. DreamCatchers also held a MedTech Hackathon in

June with 55 students from local universities, Shanghai Jiaotong University and Stanford University, as well as young professionals from the Hong Kong Science and Technology Park (HKSTP). iDendron is also the base for the Entrepreneurship Academy, a 10-week programme in which about 300 HKU students, alumni, staff and friends enrolled in autumn 2017.

Tech start-ups are an important avenue for commercialising and applying our research in the community. The HKU version of the government's Technology Start-up Support Scheme for Universities – TSSSU@HKU – has seen 30 new tech start-ups supported since its launch in 2014, including 16 start-ups that were awarded a total $4 million in 2017–18 (including eight new start-ups and eight on-going start-ups, which are eligible for funding up to three consecutive years). The start-ups involve HKU scholars, students or alumni and 12 of the 16 in the recent batch are commercialising HKU technologies. HKU also has a strong presence at the HKSTP, which hosts 50 HKU-affiliated companies, and Hong Kong Cyberport, which hosts about 25 HKU-affiliated companies and two platforms: the HKU x Cyberport Digital Tech Entrepreneurship Platform and the HKU x Cyberport FinTech Nucleus. The TTO is also working with the HKSTP to trace and analyse patent citations and histories so it can refine its strategy for marketing HKU technologies.

Taken together, the activities in knowledge exchange and technology transfer are helping to create opportunities and an environment that encourages scholars and students to engage with community, share their knowledge, and find the means to achieve impact well beyond the campus walls.

Chief Executive of the HKSAR Mrs Carrie Lam officiated at a reception for winners of the 46th International Exhibition of Inventions of Geneva. HKU research teams won eight awards at the prestigious event.

MAKING KNOWLEDGE ACCESSIBLE

Sharing academic knowledge with the community remains an important part of HKU's knowledge exchange mission, in addition to the demands of demonstrating impact.

The JC-WISE project aims to impart knowledge about numerous aspects of water conservation to the public.

Water WISE

A project to enhance understanding of the value of our rivers and recognise the impacts of water consumption on water resources has attracted thousands of people to its events and online resources.

The Jockey Club Water Initiative on Sustainability and Engagement (JC-WISE) is a three-year, $14.7 million project funded by the Jockey Club and hosted by the Faculty of Social Sciences. It was launched in late 2016 at a time when water consumption was falling in many major cities but not Hong Kong. The first step was to survey residents in Hong Kong, Macau and Guangzhou to understand their water attitudes.

"The findings highlighted the need for Hong Kong to strengthen its effort in promoting water conservation. There has been a lack of such data locally and regionally and so we now have a foundation for implementing and evaluating water conservation initiatives in Hong Kong," said Dr Frederick Lee of the Faculty of Social Sciences, who is the project co-investigator.

In 2017–18, these initiatives got into full swing. A Water Footprint Calculator and a GIS-based database and guided field trips to Hong Kong rivers and river basins were launched, nine drone videos of six river catchments and a documentary were produced, and public forums and lectures and school talks were organised. There was also a Water Fun Fest at the Hong Kong Science Museum's HK SciFest 2018 that attracted nearly 12,000 participants.

The JC-WISE website is at *www.jcwise.hk*.

Reaching out across the World with MOOCs

HKU offers 15 MOOCs (massive open online courses) through the Coursera and edX platforms, including the first MOOC on FinTech to be launched from Asia. 'Introduction to FinTech' is produced by the Faculty of Law and since May 2018, has attracted more than 30,000 enrollments from every country in the world; Standard Chartered Bank has also made it an element of its FinTech training programmes.

In 2019, the course will be combined with two other FinTech-related MOOCs, on blockchain and ethics and risks, to form HKU's first online professional certificate.

The Dinosaur Ecosystems MOOC from the Faculty of Science also stirred interest when it was selected from about 2,000 edX courses to be a top 10 finalist in the edX Prize for Exceptional Contributions in Online Teaching and Learning. This was the first Asian MOOC to make it to the top 10 of the edX Prize, which was launched in 2016.

Meanwhile, another MOOC of interest launching in late 2018, 'Doing Gender and Why It Matters', taps into the University's advocacy role in addressing the gender gap, particularly in higher education.

More than 30,000 people enrolled for the 'Introduction to FinTech' MOOC.

Dr Khong Mei-li did both the one-minute Visualise Your Thesis showcase and the Three Minute Thesis presentation.

A Thesis in One Minute

Top academic journals are increasingly requiring scholars to produce short video summaries of their research to accompany published papers, and HKU's Technology-Enriched Learning Initiative (TELI) has been providing technical support to our researchers. Graduate students are also encouraged to develop their video and presentation skills through a new international Visualise Your Thesis showcase that was inaugurated at the University of Melbourne in September 2018, where HKU was represented by Dr Khong Mei-li from the Li Ka Shing Faculty of Medicine.

Dr Khong completed her PhD in 2018 on polyphosphates, which are involved in vital functions of the body. Her work relates to protein folding in the body which, if it goes awry, can lead to disease. Dr Khong discovered that polyphosphates control protein folding and found a strategy to maintain proper protein folding. She condensed her findings into a one-minute video, complete with animation. She also presented her work at another international event, the 2018 Asia-Pacific Three Minute Thesis Competition, and placed in the top 10.

"Reducing my thesis to such short summaries was no mean feat. I spent a lot of time refining my script and rehearsing in front of individuals of different academic backgrounds and ages, such as my family, high school students, labmates, academic supervisor, churchmates and friends. I had no training in video production, but my mentor from TELI, Mr Dick Chan, taught me many basic techniques and provided me with ample resources. Basically, I did these projects with my community for my community," she said.

STUDENTS GET INNOVATIVE

Students contribute to the University's knowledge exchange goals by engaging with the community and launching their own enterprises to make a difference.

Sidhant Gupta (left) and Tejasvi Mehra, creators of OSREI, which makes digital learning resources accessible to remote villages in India, the Philippines and Vietnam.

Bringing e-Learning to Remote Regions

Digital learning holds the promise of improving the education of children in remote and under-developed areas, yet these children are often the least able to access the resources required. Two BEng students, Sidhant Gupta and Tejasvi Mehra, who are both computer science majors in their final year, have come up with an innovative solution they call the Open Source Remote Education Initiative (OSREI).

They tackled both the software and hardware issues by creating a platform for uploading teaching videos and other content, and delivering 15 tablets to remote villages in Vietnam, the Philippines and India to serve a total of more than 1,000 students. The tablets link to the platform, where the content has been developed with input from local partner NGOs to ensure it is appropriate to each region.

Sidhant, Tejasvi and their team also provided training in the technology for teachers and students and produced videos for the platform, with support from HKU's Technology-Enriched Learning Initiative (see page 14). They had funding support from the Centre of Development and Resources for Students and donors. "We strongly believe that digital literacy is an essential element in accessing opportunity in the modern world. Coming from India, we've seen first-hand the stark difference in educational environments between urban areas and remote ones. We feel technology holds the solution to this issue," Sidhant said.

Legal Jargon Explained

Three law students have developed a browser plug-in, called Decoding Law, that can cut through legal jargon and explain legal terms in plainer language for the general public. The browser also includes a chatbot where questions can be submitted about which laws might apply to specific situations, such as playing mah-jong in a public place.

Decoding Law was developed by third-year BBA(Law) and LLB students Alison Li Pui-wun, Edelweiss Kwok Yuet-yi and Sally Yiu Man-ki, in collaboration with two law students from the Chinese University of Hong Kong and four Hong Kong-based IT experts.

"We understand how difficult it can be to understand legislation and we hope our tool will be helpful especially to people who are involved in court cases and cannot afford to hire lawyers," Ms Yiu said.

The non-profit browser won the public sector award of the first Global Legal Hackathon competition in New York in April 2018, beating out teams that mostly comprised legal and computer professionals. The browser has not yet gone live but the team is open to collaboration with existing legal tools, such as the e-legislation initiative of Hong Kong's Department of Justice.

The HKU team behind the Decoding Law browser, (left to right) Alison Li, Edelweiss Kwok and Sally Yiu.

Harris Cheng (left) and Jerome Tse, creators of Freehunter.

Social Network for Creatives

A start-up that was among the first to be admitted to HKU's iDendron innovation hub and co-working space has evolved to the point that it is preparing to expand to Taiwan.

Freehunter was set up by Harris Cheng, who graduated in 2017 with a BEcon&Fin, with colleague Jerome Tse as a kind of LinkedIn / Facebook hybrid for people in the maker and creative communities, such as dancers, artists and writers. It acts as a social network where people can list their skills and services as well as share more personal information pertinent to their fields.

Harris provided the inspiration for the start-up, having previously tried his hand at freelance photography, videography, graphic design and launching two start-ups for food and apparel. Freehunter has signed up more than 1,000 freelancers and he said the plan was to earn income from the data analytics of this specialised group. A second round of recruitment will be held in 2019 that will include Taiwan.

"We were attracted to iDendron because we needed an affordable place to work and there were also a lot of programmes and connections to be made. But what we discovered is that it is also a real community where people help each other out. There's a culture of giving and we're all at a similar stage of life and one of the best things has been making new friends," he said.

A Two-way Exchange

Sharing information through knowledge exchange can benefit the community and vice versa, with community input benefitting research.
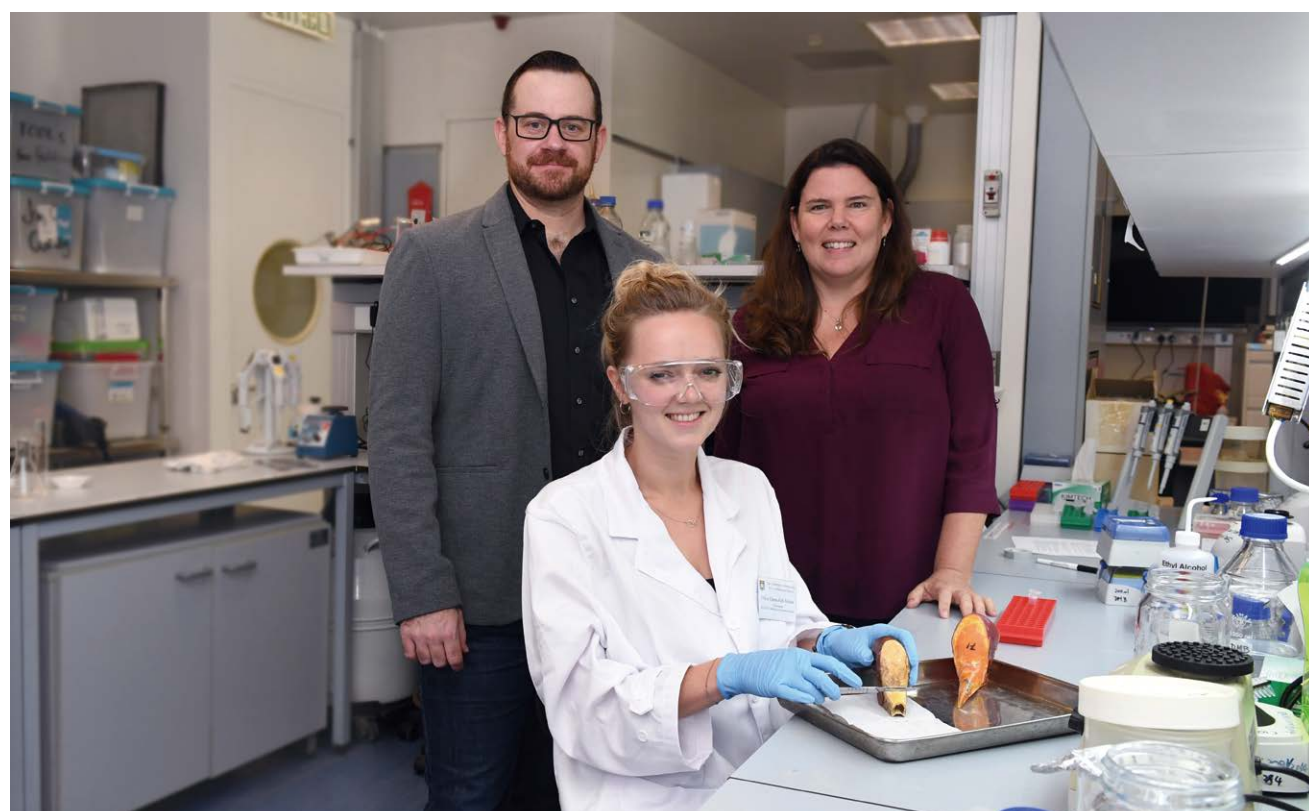
Using science to fight wildlife trafficking, Dr David Baker, Dr Caroline Dingle and PhD student Chloe Webstert (seated).

Conservation Forensics

Researchers from the School of Biological Sciences are helping to provide scientific evidence to authorities to investigate and prosecute illegal trafficking of wildlife. Their work has included using DNA to identify species of baby eels traded through Hong Kong that are under threat, using DNA to match helmeted hornbill parts to their place of origin to help identify trade routes, using isotopes to determine if an animal is (legally) captive bred or illegally caught in the wild, and using data analysis to map the trade in pangolins.

The work is particularly important because Hong Kong is a major hub for wildlife trafficking, is the fourth most lucrative criminal trade in the world, generating about US$20 billion in illicit revenue.

Dr Caroline Dingle is a member of the Conservation Forensics Lab, which includes faculty and students from the School of Biological Sciences. The group works with partners including the Hong Kong government and local and international non-governmental organisations, including the Hong Kong Bird Watching Society, the World Wide Fund for Nature, and Kadoorie Farm and Botanic Garden, who have a shared aim of protecting wildlife. The formation of the group was motivated by a common purpose. "We realised that the tools we use in our research could be used to assist with on-going efforts to stem the flow of illegal wildlife through Hong Kong," she said.

Tree Project Counts on Citizen Scientists

About 360 volunteers from the community were recruited and trained to help Forest Global Earth Observatory, an international initiative of scientists, to collect long-term data on tree growth and proliferation. Dr Billy Hau Chi-hang of the School of Biological Sciences led Hong Kong's contributions and was awarded a Faculty Knowledge Exchange Award 2017 from the Faculty of Science.

The volunteers were trained by Dr Hau and his team and counted and identified 81,000 trees of 173 tree species in a 20-hectre plot at Tai Po Kau Nature Reserve. They were recruited during forest education programmes organised for more than 2,000 green group leaders, journalists, corporate staff of HSBC, university students, secondary school teachers and students, and the general public.

The data collection takes place every five years. The Hong Kong survey was completed in 2015 and the plot has now become a permanent site for education, training and long-term forest biodiversity monitoring, with support from the Agriculture, Fisheries and Conservation Department.

Volunteers learn how to collect and collate data on tree growth and proliferation.

30
start-ups
Funded by TSSSU@HKU since 2014, including 8 new start-ups funded in 2018–19.

52
KE projects
Supported by the KE Impact Project Funding Scheme in 2017–18.

33
student KE projects
Supported through the KEO together with CEDARS in 2017–18.

Students*

Student Admission (New Intakes)

Academic Level	Male		Female		All		% International (Based on Nationality)	
	2017–18	2016–17	2017–18	2016–17	2017–18	2016–17	2017–18	2016–17
Undergraduate	1,960	1,963	2,389	2,401	4,349	4,364	24.4%	21.2%
Taught Postgraduate	2,061	2,086	3,166	2,926	5,227	5,012	47.1%	45.0%
Research Postgraduate	381	376	337	310	718	686	79.4%	74.9%
All New Intakes	*4,402*	*4,425*	*5,892*	*5,637*	*10,294*	*10,062*	*39.8%*	*36.7%*

Enrollment of Students on All Programmes

Faculty	Undergraduate		Taught Postgraduate		Research Postgraduate		All Levels	
	2017–18	2016–17	2017–18	2016–17	2017–18	2016–17	2017–18	2016–17
Architecture	747	745	662	630	110	116	1,519	1,491
Arts	1,925	1,895	509	464	216	226	2,650	2,585
Business and Economics	2,990	3,047	1,333	1,324	86	81	4,409	4,452
Dentistry	352	340	39	33	71	80	462	453
Education	1,004	941	1,516	1,620	205	215	2,725	2,776
Engineering	2,493	2,359	1,702	1,680	596	603	4,791	4,642
Law	565	586	1,111	981	66	65	1,742	1,632
Medicine	3,097	3,118	733	719	717	714	4,547	4,551
Science	2,331	2,236	346	363	521	548	3,198	3,147
Social Sciences	1,503	1,542	1,310	1,215	243	258	3,056	3,015
All Faculties	*17,007*	*16,809*	*9,261*	*9,029*	*2,831*	*2,906*	*29,099*	*28,744*
In % Distribution	*58.4%*	*58.5%*	*31.8%*	*31.4%*	*9.7%*	*10.1%*	*100%*	*100%*

* All student statistics shown above include students on UGC-funded, self-funded as well as outreach programmes. Exchange-in and visiting students are excluded.

Enrollment of International Students (Based on Nationality)

Region	Undergraduate		Taught Postgraduate		Research Postgraduate		All Levels	
	2017–18	2016–17	2017–18	2016–17	2017–18	2016–17	2017–18	2016–17
	Headcount							
Mainland China	1,615	1,466	2,706	2,540	1,757	1,743	6,078	5,749
Other Asian Countries	1,349	1,235	362	349	174	182	1,885	1,766
Australia and New Zealand	142	157	80	76	22	21	244	254
European Countries	312	327	305	300	119	134	736	761
North American Countries	253	290	244	262	71	70	568	622
Others (e.g. Central and South America, African Countries)	11	13	24	25	22	25	57	63
All	*3,682*	*3,488*	*3,721*	*3,552*	*2,165*	*2,175*	*9,568*	*9,215*
	%							
Mainland China	43.9%	42.0%	72.7%	71.5%	81.2%	80.1%	63.5%	62.4%
Other Asian Countries	36.6%	35.4%	9.7%	9.8%	8.0%	8.4%	19.7%	19.2%
Australia and New Zealand	3.9%	4.5%	2.1%	2.1%	1.0%	1.0%	2.6%	2.8%
European Countries	8.5%	9.4%	8.2%	8.4%	5.5%	6.2%	7.7%	8.3%
North American Countries	6.9%	8.3%	6.6%	7.4%	3.3%	3.2%	5.9%	6.7%
Others (e.g. Central and South America, African Countries)	0.3%	0.4%	0.6%	0.7%	1.0%	1.1%	0.6%	0.7%
All	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*

* All student statistics shown above include students on UGC-funded, self-funded as well as outreach programmes. Exchange-in and visiting students are excluded.
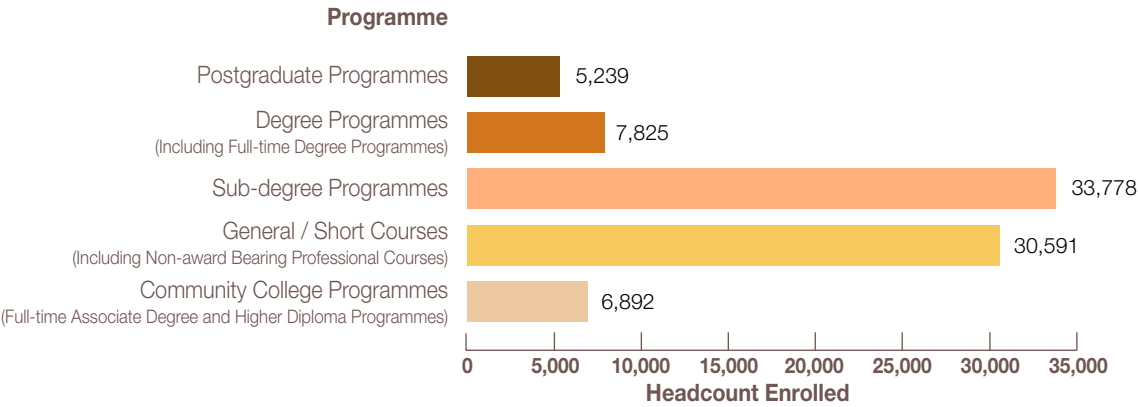
HKU School of Professional and Continuing Education (HKU SPACE)

Enrollment of Student in Local Programmes Run by HKU SPACE in 2017–18: 84,325

Programme

Programme	Headcount Enrolled
Postgraduate Programmes	5,239
Degree Programmes (Including Full-time Degree Programmes)	7,825
Sub-degree Programmes	33,778
General / Short Courses (Including Non-award Bearing Professional Courses)	30,591
Community College Programmes (Full-time Associate Degree and Higher Diploma Programmes)	6,892

Enrollment of Students in Programmes Run in Mainland China by HKU SPACE in 2017–18	*2,886*

GRADUATES*

Cumulative Number of Alumni as of June 2018: 221,224

Graduates of All Programmes

Academic Level	Male		Female		All		% International (Based on Nationality)	
	2017–18	2016–17	2017–18	2016–17	2017–18	2016–17	2017–18	2016–17
Undergraduate	1,785	1,769	2,209	2,202	3,994	3,971	19.7%	20.0%
Taught Postgraduate	2,036	1,948	3,045	2,809	5,081	4,757	48.4%	46.6%
Research Postgraduate	369	324	335	338	704	662	71.7%	72.4%
All Graduates	*4,190*	*4,041*	*5,589*	*5,349*	*9,779*	*9,390*	*38.3%*	*37.2%*

Distribution of International Graduates (Based on Nationality)

Region	Undergraduate		Taught Postgraduate		Research Postgraduate		All Levels	
	2017–18	2016–17	2017–18	2016–17	2017–18	2016–17	2017–18	2016–17
	Headcount							
Mainland China	335	342	1,907	1,662	401	395	2,643	2,399
Other Asian Countries	232	239	204	202	46	35	482	476
Australia and New Zealand	45	41	42	38	2	4	89	83
European Countries	84	93	170	161	30	26	284	280
North American Countries	85	75	127	145	19	16	231	236
Others (e.g. Central and South America, African Countries)	4	3	10	11	7	3	21	17
All	*785*	*793*	*2,460*	*2,219*	*505*	*479*	*3,750*	*3,491*
	%							
Mainland China	42.7%	43.1%	77.5%	74.9%	79.4%	82.5%	70.5%	68.7%
Other Asian Countries	29.6%	30.1%	8.3%	9.1%	9.1%	7.3%	12.9%	13.6%
Australia and New Zealand	5.7%	5.2%	1.7%	1.7%	0.4%	0.8%	2.4%	2.4%
European Countries	10.7%	11.7%	6.9%	7.3%	5.9%	5.4%	7.6%	8.0%
North American Countries	10.8%	9.5%	5.2%	6.5%	3.8%	3.3%	6.2%	6.8%
Others (e.g. Central and South America, African Countries)	0.5%	0.4%	0.4%	0.5%	1.4%	0.6%	0.6%	0.5%
All	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*

* All graduate statistics shown above include graduates on UGC-funded, self-funded as well as outreach programmes.

NUMBER OF PROGRAMMES*

2017–18: **355**   2016–17: **347**
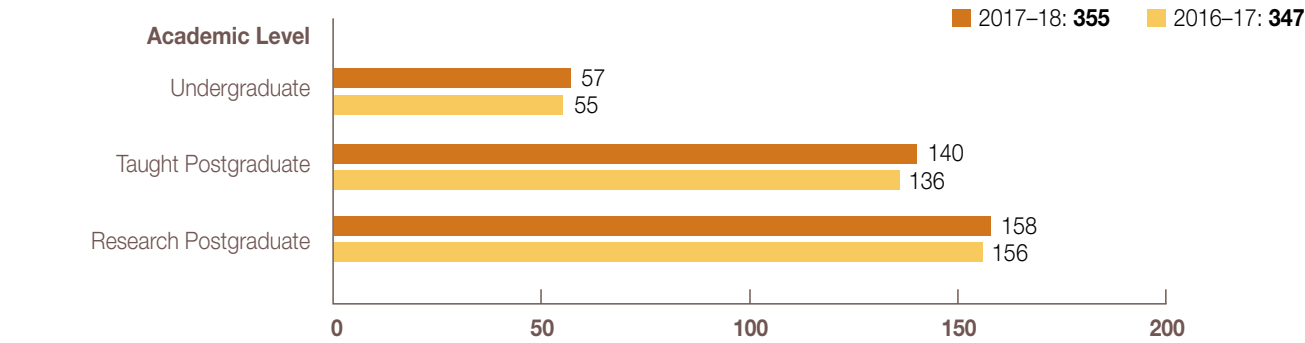
* The number of programmes listed above include where applicable, programmes offered in the full-time and part-time modes which are counted as separate programmes. The counting of research postgraduate programmes is based on the academic departments with research postgraduate students enrolled in the year under reference.

Any undergraduate programme with enrollments from both new 4-year and old 3-year curriculums is counted once only.

STAFF†

Number of Staff in Headcount

Category of Staff	Male		Female		All	
	2017–18	2016–17	2017–18	2016–17	2017–18	2016–17
Professoriate	790	807	297	312	1,087	1,119
Research and Non-professoriate Teaching	1,247	1,211	1,417	1,297	2,664	2,508
Other Academic	43	20	14	6	57	26
Administrative and Support	680	652	2,107	2,033	2,787	2,685
Technical	756	725	444	417	1,200	1,142
All Staff	*3,516*	*3,415*	*4,279*	*4,065*	*7,795*	*7,480*

Distribution of International Professoriate Staff (Based on Nationality)

Region	Headcount		%	
	2017–18	2016–17	2017–18	2016–17
Mainland China	239	226	36.3%	33.8%
Other Asian Countries	98	101	14.9%	15.1%
Australia and New Zealand	52	55	7.9%	8.2%
European Countries	126	132	19.1%	19.8%
North American Countries	140	150	21.2%	22.5%
Others (e.g. Central and South America, African Countries)	4	4	0.6%	0.6%
All	*659*	*668*	*100%*	*100%*

† All staff statistics shown above include UGC-funded and self-funded staff, honorary and visiting staff are excluded.
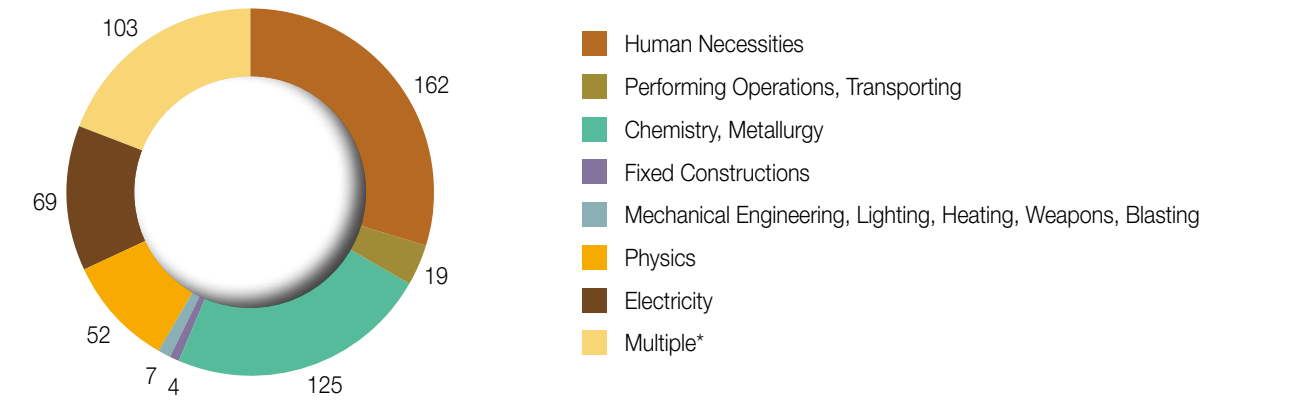
RESEARCH

Research Funding

Fund Source	HK$ (in Million)		%	
	2017–18	2016–17	2017–18	2016–17
Block Grant from University Grants Committee	2,161.7	2,105.0	63.2%	60.7%
Research Grants Council / University Grants Committee	273.8	357.9	8.0%	10.3%
Other External Sources#	737.1	801.8	21.6%	23.1%
Income from Research-related Endowment Funds	246.6	201.8	7.2%	5.8%
Total Research Funding	*3,419.3*	*3,466.5*	*100%*	*100%*

Includes the following fund sources: government, private, industry and HKU Foundation.

Research Projects (On-going and New)

Broad Disciplinary Area	Research Grants Projects				Research Contract Projects				All			
	No. of Projects		Value (in HK$ M)		No. of Projects		Value (in HK$ M)		No. of Projects		Value (in HK$ M)	
	2017–18	2016–17	2017–18	2016–17	2017–18	2016–17	2017–18	2016–17	2017–18	2016–17	2017–18	2016–17
Biology and Medicine	3,036	3,062	5,318.3	5,002.0	275	258	1,061.0	910.9	3,311	3,320	6,379.3	5,912.9
Engineering	677	716	683.3	597.1	106	89	124.0	109.7	783	805	807.4	706.8
Humanities, Social Sciences and Business Studies	1,254	1,307	1,324.6	1,311.1	185	173	459.9	443.1	1,439	1,480	1,784.6	1,754.2
Physical Sciences	434	448	594.3	614.9	20	21	44.2	43.6	454	469	638.5	658.5
All Disciplines	*5,401*	*5,533*	*7,920.6*	*7,525.2*	*586*	*541*	*1,689.2*	*1,507.3*	*5,987*	*6,074*	*9,609.8*	*9,032.4*

Cumulative Number of Patents Granted (since 1998 and up to June 2017): 541

- Human Necessities — 162
- Performing Operations, Transporting — 19
- Chemistry, Metallurgy — 125
- Fixed Constructions — 4
- Mechanical Engineering, Lighting, Heating, Weapons, Blasting — 7
- Physics — 52
- Electricity — 69
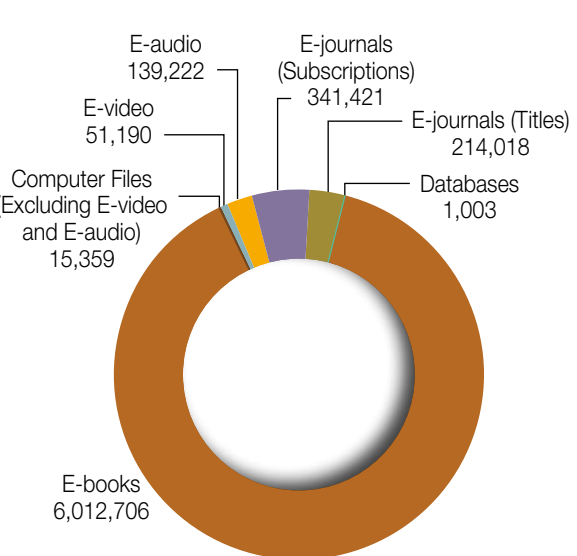- Multiple* — 103

* Multiple types refer to patent granted which covers more than 1 of those types specified.

LIBRARY RESOURCES 2017–18

Number of Bound Volumes in Main and Specialist Libraries: 3,093,115

- Education Library 33,222
- Dental Library 52,945
- Music Library 35,680
- Law Library 148,497
- Medical Library 226,855
- Main Library 1,624,990
- Fung Ping Shan Library 970,926

E-resources

- E-audio 139,222
- E-journals (Subscriptions) 341,421
- E-video 51,190
- E-journals (Titles) 214,018
- Computer Files (Excluding E-video and E-audio) 15,359
- Databases 1,003
- E-books 6,012,706
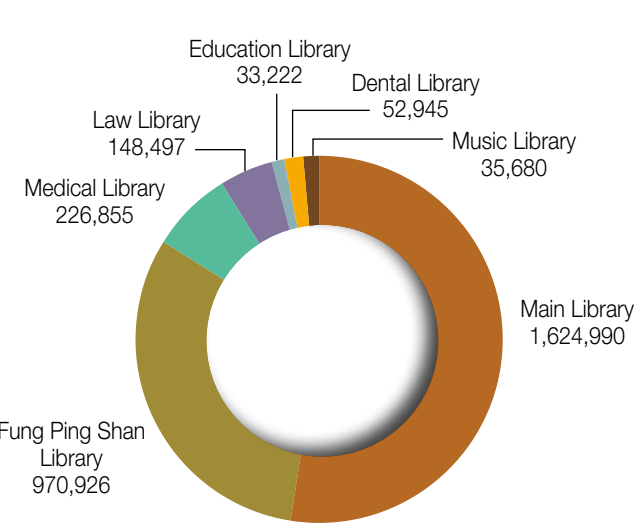
Total Number of Registered Library Users	*131,117*

Student Learning Support Resources / Services

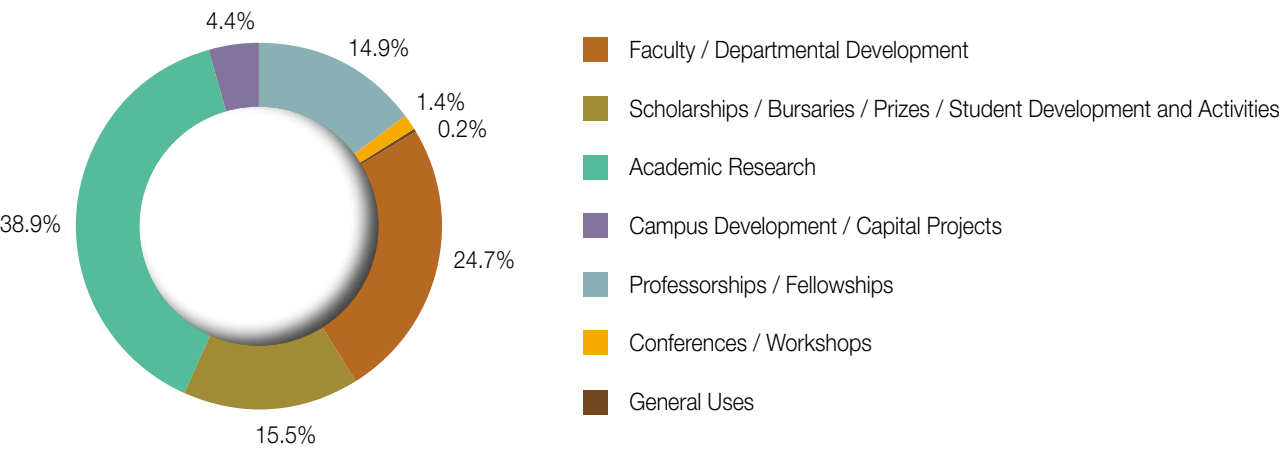| Type	Number
Total Library Seats	2,615
Group Discussion Rooms	51
Single Study Rooms for Postgraduate Students	
Main Library	7
Medical Library	11
Single Study Carrels for Postgraduate Students	
Main Library	29
Law Library	38
Medical Library	8
24 Hours Single Study Carrels for All	44
Computer Workstations	406
Wireless Network Access Points	120
Postgraduate Library Workshop	172 Workshops
Information and Referral Service	63,994 Reference Transactions

Computing and Network Resources

Type of Resources	Number
Number of Wired Network Access Points	52,893
Number of Wireless Network Access Points	5,673
Total Bandwidth for Direct Connection to the Internet and Research / Education Networks	14,500 (in Mbps)
Aggregated Central Computing Power for Teaching and Research Purposes (Theoretical Peak Computing Speed)	155.1 (in TFLOPS)

Giving to HKU

Donation Facts in 2017–18

Total Number of Gifts Received	7,361
Total Amount of Donations	HK$651M
Total Number of Donors	5,671
Number of First-time Donors	4,729
Ratio of Alumni vs Non-Alumni Donors	70 : 30

Distribution of Donations 2017–18

- 24.7% Faculty / Departmental Development
- 15.5% Scholarships / Bursaries / Prizes / Student Development and Activities
- 38.9% Academic Research
- 4.4% Campus Development / Capital Projects
- 14.9% Professorships / Fellowships
- 0.2% Conferences / Workshops
- 1.4% General Uses

Finance

An Analysis of Consolidated Income and Expenditure for the Year Ending June 30, 2018

Revenue	HK$'000	%
Government Subventions	5,188,694	47.8%
Tuition, Programmes and Other Fees	2,808,193	25.9%
Donations and Benefactions	640,724	5.9%
Auxiliary Services	413,435	3.8%
Interest and Investment Gain / (Loss)	930,390	8.6%
Other Income	864,534	8.0%
Total Revenue	*10,845,970*	*100%*

Expenditure	HK$'000	%
Teaching, Learning and Research	*6,891,406*	*72.9%*
Teaching and Research	6,092,495	64.4%
Library	240,600	2.5%
Central Computing Facilities	209,654	2.2%
Other Academic Services	348,657	3.7%
Institutional Support	*2,563,985*	*27.1%*
Management and General	570,891	6.0%
Premises and Related Expenses	1,199,083	12.7%
Student and General Education Services	498,623	5.3%
Other Activities	295,388	3.1%
Total Expenditure	*9,455,391*	*100%*

SPACE

Distribution of Space by Categories Based on Total Gross Covered Floor Area (as of June 2018)

Category	Gross Covered Floor Area (in sq. m.)	%
Academic Space	309,252	43.7%
Central Libraries	44,733	6.3%
Central Administration and Maintenance	27,838	3.9%
Student and Staff Amenities	29,865	4.2%
Sports Facilities	14,441	2.0%
Student Halls of Residence and Staff Quarters	275,627	38.9%
Others (Including HKU Museum and HKU Press)	6,554	0.9%
All Categories	*708,310*	*100%*

HKU SPACE Gross Covered Floor Area (as of June 2018)	**44,209 sq. m.**

Land Holdings

Sites	Lot Area (in Hectares)
Hong Kong Island	*43.9*
Main Campus	17.3
Medical Campus	4.2
Other Sites on Pokfulam	22.4
New Territories	*9.6*
Kadoorie Centre	9.6
All	*53.5*

Halls and Student Residences

Number of Places	Number
Existing	6,500
Planned	2,450

OVERVIEW

The financial year 2017–18 was the second year of the 2016–19 triennium. The Group continued to provide a world-class and intellectual environment striving for academic excellence in all aspects of teaching, learning, research and knowledge exchange. The Group's consolidated financial results recorded a surplus of $1,409 million under the continuous and incremental funding support from the University Grants Committee (UGC).

In preparing the consolidated financial statements, the Group has adopted certain new / revised Hong Kong Financial Reporting Standards (HKFRS) issued by the Hong Kong Institute of Certified Public Accountants which are relevant and applicable to the Group's operation and comply with the Statement of Recommended Practice for the UGC-Funded Institutions.

RESULTS FOR THE YEAR

The Group's consolidated results for the year ended June 30, 2018 are summarised as follows:

	2018 $ million	2017 $ million
Income	10,846	10,830
Expenditure	(9,455)	(9,261)
Surplus from Operations	1,391	1,569
Share of Surplus of Joint Ventures and Associates	11	12
Surplus for the Year	1,402	1,581
Other Comprehensive Income	7	68
Total Comprehensive Income	1,409	1,649

The consolidated income for the year 2017–18 was $10,846 million, an increase of $16 million as compared to last year. This was mainly due to increase in subventions from UGC as well as the donations and benefactions received during the year.

The consolidated expenditure increased 2% to $9,455 million (2016–17: $9,261 million), of which $6,891 million (2016–17: $6,545 million) was expended on the Group's teaching, learning and research activities.

FINANCIAL OUTLOOK

With the end of the financial year 2017–18, the University has entered into the last year of the triennium. The University has placed a sharp focus on its vision to be the Asia's Global University and delivers impact through internationalisation, innovation and interdisciplinarity.

As always, the University prepares to make substantial and long-term investments in infrastructure and technology upgrades to support our academic endeavours and enhance the teaching, learning and research experiences throughout the campus. More considerable resources are required to invest and improve the physical space available for scholarly activities, as well as the accommodation for an enlarged student population, both local and overseas, in the coming years.

The University shall remain prudent and yet be creative and flexible in financial management to facilitate the long-term growth of the University, while at the same time actively attracting donations and managing resources in an efficient manner to support the strategic development.

The University's Annual Accounts can be found at www.feo.hku.hk/finance/. *Any correspondence or feedback on this extract or the accounts should be addressed to e-mail:* finance-mail@hku.hk.

THE UNIVERSITY OF HONG KONG
CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME
For the year ended June 30, 2018

(Expressed in thousands of Hong Kong dollars)	2018	2017
Revenue		
Government Subventions	5,188,694	4,971,549
Tuition, Programmes and Other Fees	2,808,193	2,704,072
Donations and Benefactions	640,724	445,192
Auxiliary Services	413,435	415,460
Interest and Investment Gain	930,390	1,446,241
Other Income	864,534	847,571
	10,845,970	10,830,085
Expenditure		
Teaching, Learning and Research		
Teaching and Research	6,092,495	5,782,972
Library	240,600	230,581
Central Computing Facilities	209,654	202,693
Other Academic Services	348,657	329,163
Institutional Support		
Management and General	570,891	592,535
Premises and Related Expenses	1,199,083	1,325,625
Student and General Education Services	498,623	490,817
Other Activities	295,388	306,454
	9,455,391	9,260,840
Surplus for the Year before Share of Joint Ventures and Associates	1,390,579	1,569,245
Share of Surplus of Joint Ventures	9,827	10,757
Share of Surplus of Associates	1,204	1,309
Loss on Disposal of an Associate	-	(738)
Surplus for the Year	1,401,610	1,580,573
Other Comprehensive Income		
Items that may be recognised in the Consolidated Statement of Comprehensive Income		
Exchange Differences	3,439	1,917
Share of Changes in Fair Value of Available-for-Sale Financial Assets of a Joint Venture	1,215	1,151
Changes in Fair Value of an Available-for-Sale Financial Asset	(2,103)	57,936
Items that will not be recognised subsequently in the Consolidated Statement of Comprehensive Income		
Re-measurement of Defined Benefit Retirement Scheme Assets	4,339	7,119
	6,890	68,123
Total Comprehensive Income for the Year	1,408,500	1,648,696
Attributable to:		
UGC Funds	409,788	331,548
Restricted Funds	33,352	197,512
Other Funds	965,360	1,119,636
	1,408,500	1,648,696

THE UNIVERSITY OF HONG KONG
CONSOLIDATED STATEMENT OF FINANCIAL POSITION
As at June 30, 2018

(Expressed in thousands of Hong Kong dollars)	2018	2017
Assets		
Non-Current Assets		
Property, Plant and Equipment	8,497,315	8,742,012
Intangible Assets	10,786	22,443
Interest in Associates	4,889	3,685
Interest in Joint Ventures	238,793	227,751
Available-for-Sale Financial Assets	57,226	59,329
Held-to-Maturity Investments	1,722,070	949,609
Financial Assets at Fair Value through Profit or Loss	11,288,688	10,585,708
Loans Receivable	4,540	4,096
Accounts Receivable and Prepayments	628,120	523,363
Defined Benefit Retirement Scheme Assets	13,013	9,340
	22,465,440	21,127,336
Current Assets		
Assets Classified as Held for Sale	39,756	1,531
Held-to-Maturity Investments	187,193	221,996
Financial Assets at Fair Value through Profit or Loss	304,094	335,258
Loans Receivable	152,897	161,891
Inventories	5,760	6,385
Accounts Receivable and Prepayments	875,816	888,066
Amount Due from a Joint Venture	2,396	4,040
Bank Deposits with Original Maturity over Three Months	6,272,579	8,387,031
Cash and Cash Equivalents	2,760,086	812,114
	10,600,577	10,818,312
Total Assets	33,066,017	31,945,648
Funds		
UGC Funds	2,374,892	2,325,804
Restricted Funds	8,669,323	8,366,970
Other Funds	14,373,404	13,361,345
Total Funds	25,417,619	24,054,119
Liabilities		
Non-Current Liabilities		
Accounts Payable and Accruals	4,902	11,225
Employee Benefit Accruals	79,867	97,317
Loans and Borrowings	111,484	143,233
Deferred Capital Funds	3,032,627	3,097,362
	3,228,880	3,349,137
Current Liabilities		
Accounts Payable and Accruals	2,756,743	2,591,106
Amount Due to a Joint Venture	2,185	69
Employee Benefit Accruals	710,700	665,027
Loans and Borrowings	207,496	479,228
Deferred Income	742,394	806,962
	4,419,518	4,542,392
Total Liabilities	7,648,398	7,891,529
Total Funds and Liabilities	33,066,017	31,945,648
Net Current Assets	6,181,059	6,275,920
Total Assets Less Current Liabilities	28,646,499	27,403,256

OFFICERS OF THE UNIVERSITY

As at November 15, 2018

Chancellor
The Honourable Mrs Carrie Lam
GBM; GBS; BSocSc *HK*; HonDSocSc *Lingnan*

Pro-Chancellor
Dr the Honourable Sir David Li Kwok Po
GBM; GBS; HonLLD *Cantab, Warw* and *HK*; HonDSSc *CUHK*; JP

President and Vice-Chancellor
Professor Xiang Zhang
MS/BS *Nanjing*; MS *Minn*; PhD *Berkeley*; MCAS; MNAE; MAS

Provost and Deputy Vice-Chancellor
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MBBS *HK*; ChM *Liv*; FRCS(Edin); FRCS(Glas); FRCS(Ire); FRCPCH;
FHKAM (Surgery); JP

Executive Vice-President (Administration and Finance)
Dr Steven John Cannon
MA(Hons) *Dundee*; HonLLD *Aberd*

**Vice-President and Pro-Vice-Chancellor
(Academic Staffing and Resources)**
Professor Terry Au Kit Fong
AB *Harv*; PhD *Stan*; APS; APA

Vice-President and Pro-Vice-Chancellor (Global)
Professor John Kao Weiyuan
BS *Johns Hopkins*; MS, PhD *Case W Reserve*; FBSE

Vice-President and Pro-Vice-Chancellor (Research)
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FSNIC; FSNAS

**Vice-President and Pro-Vice-Chancellor
(Teaching and Learning)**
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MA *Cantab*; MPhil, DPhil *Oxon*

Treasurer
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SBS; BSocSc *HK*; JP

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Professor Christopher John Webster
BSc, MSc *Wales*; PhD *Hull*

Arts
Professor Derek Burton Collins
BA, MA *Calif*; PhD *Harv*

Business and Economics
Professor Cai Hongbin
BS *Wuhan*; MEcon *Peking*; MS, PhD *Stan*

Dentistry
Professor Thomas Frank Flemmig
MBA *Duke*; Dr med dent *Freiburg*; Dr med dent habil *Würzburg*

Education
Professor Anne Lyn Goodwin
MA, EdM, EdD *Col*

Engineering
Professor Christopher Chao Yu Hang
BSc(Eng) *HK*; MS, PhD *Calif*

Law
Professor Michael Hor Yew Meng
LLB *Sing Nat*; BCL *Oxon*; LLM *Chic*

Medicine
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GBS; MD *W Ont*; MPH *Harv*; MD *HK*; FHKCCM; FHKAM (Community
Medicine); FFPH(RCP) (UK); FCFP; FRCP(Edin); JP

Science
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BSc *Brist*; PhD *Cantab*

Social Sciences
Professor William Gordon Hayward
BA, MA *Cant*; MS, MPhil, PhD *Yale*

Dean of Student Affairs
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BSocSc, MSocSc *HK*; PhD *CUHK*; CPsych; FHKPsS

Registrar
Mr Henry Wai Wing Kun
BA, MA *HK*; FCIS

Director of Finance
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BSocSc *HK*; MSc *HKPU*; MBA *Col;* CertICM; CGA; FCCA; FCPA

Librarian
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BMath *Newcastle*; MAppSc(Lib&InforMgt) *Charles Sturt*; MA *Durh*;
DipIM-Lib *NSW*; AALIA; FHKLA

Director of Estates
Mr Tam King Leung
MHKIE; FHKICM; MCCES; RPE

THE COURT

As at November 15, 2018

Membership Category	Member
1. Chancellor	*The Hon. Mrs Carrie Lam*
Pro-Chancellor	*Dr the Hon. Sir David K.P. Li*
President and Vice-Chancellor	*Professor X. Zhang*
Provost and Deputy Vice-Chancellor	*Professor P.K.H. Tam*
Vice-Presidents and Pro-Vice-Chancellors	*Professor T.K.F. Au*
	Dr S.J. Cannon
	Professor I.M. Holliday
	Professor T.S.A. Hor
	Professor W.J. Kao
Treasurer	*Mrs Margaret M.Y. Leung Ko*
2. Life Members of Court	*Dr the Hon. Victor K.K. Fung*
	Dr the Hon. Leong Che Hung
	The Hon. Sir Ti Liang Yang
3. Members of the Council	
(a) Chairman	*Professor the Hon. Arthur K.C. Li*
Six persons, not being students or employees of the University, appointed by the Chancellor	*Ms Vivien Chan*
	Mr Edward K.F. Chow
	Mr Daryl W.K. Ng
	Dr Patrick S.C. Poon
	Dr Thomas B. Stevenson
	. . . .
(b) Six persons, not being students or employees of the University, appointed by the Council	*Professor Edward K.Y. Chen*
	Mrs Ayesha M. Lau
	The Hon. Abraham L.H. Shek
	Dr Peter K.K. Wong
	Ms Priscilla P.S. Wong
	Professor the Hon. Rosie T.T. Young
(c) Two persons, not being students or employees of the University, elected by the Court	*Professor Henry H.L. Chan*
	Mr Tai Keen Man
(d) President and Vice-Chancellor	
(e) Treasurer	
(f) Four full-time teachers elected in accordance with regulations	*Professor J.C.W. Chan*
	Professor Z. Chen
	Dr K.C. Cheung
	Professor C.M. Lo
(g) One full-time employee of the University, not being a teacher, elected in accordance with regulations	*Mr E.T.M. Cheung*
(h) One full-time undergraduate student elected in accordance with regulations	*Mr D.K. Wong*
(i) One full-time postgraduate student elected in accordance with regulations	*Mr R. Zhang*

Membership Category	Member
4. Members of the Senate	
(a) President and Vice-Chancellor	
(b) Provost and Deputy Vice-Chancellor	
(c) Vice-Presidents and Pro-Vice-Chancellors	
(d) Dean of each Faculty	*Professor C.J. Webster (Architecture)* *Professor D.B. Collins (Arts)* *Professor H. Cai (Business and Economics)* *Professor T.F. Flemmig (Dentistry)* *Professor A.L. Goodwin (Education)* *Professor C.Y.H. Chao (Engineering)* *Professor M.Y.M. Hor (Law)* *Professor G.M. Leung (Medicine)* *Professor M.R. Evans (Science)* *Professor W.G. Hayward (Social Sciences)*
(e) Chairman of each Board of the Faculty	*Dr F.F. Ng (Architecture)* *Professor J.C. Schencking (Arts)* *Professor K.P. Wong (Business and Economics)* *Professor M.C.M. Wong (Dentistry)* *Professor F.K.S. Leung (Education)* *Dr K.C. Cheung (Engineering)* *Professor A.H.Y. Chen (Law)* *Professor K.S.L. Lam (Medicine)* *Professor Y.J. Sadovy (Science)* *Professor K.A. Laidler (Social Sciences)*
(f) Twelve elected Professors	*Professor D.W. Arner* *Professor W.K. Chan* *Professor Y.S. Chan* *Professor K.S.E. Cheah* *Professor J.C.S. Chim* *Professor A. Djurisic* *Professor W.R. Hu* *Professor W.C.S. Lau* *Professor Q.A. Parker* *Professor G. Xu* *Professor A.G.O. Yeh* . . . .

Membership Category	Member
(g) Six elected teachers, not being Professors	*Dr D.M. Baker* *Dr C.X. Fang* *Dr N.R. Mc Kenzie* *Dr J.A. Tanner* *Dr W.L.M. Wong* . . . .
(h) Director of the School of Professional and Continuing Education	*Professor W.K.M. Lee*
(i) Dean of the Graduate School	*Professor M.L. Chye*
(j) Librarian	*Mr P.E. Sidorko*
(k) Dean of Student Affairs	*Dr E.Y.S. Leung*
(l) Three elected full-time students (at least one undergraduate and one postgraduate)	*Mr D.T.S. Lei* *Mr O.H.L. Leung* *Mr Y. Zhang*
5. Registrar	*Mr H.W.K. Wai*
6. Chairman of Convocation Deputy Chairman of Convocation Clerk of Convocation	*Dr Patrick S.C. Poon* *Mr Ernest Y.K. Wong* *Ms Elaine Y.L. Liu*
7. Five persons elected by the Members of the Legislative Council from among their own number	*The Hon. Cheung Kwok Kwan* *The Hon. Ip Kin Yuen* *The Hon. Mrs Regina S.Y. Ip Lau* *The Hon. Claudia Mo* *The Hon. Abraham L.H. Shek*
8. Twelve members elected from among its number by the Standing Committee of Convocation	*Dr Alex W.S. Chan* *Mr King K.K. Chan* *Ms Gloria W.K. Chang* *Mr Cheung Ka Lun* *Dr K.W. Fu* *Mr Keith W.F. Kiu* *Mr Peter P.M. Kwan* *Mr Alex C.H. Lai* *Mr Dantes W.C. Leung* *Dr Liu Chun Wah* *Mr Mak Tung Wing* *Mr Danny W.H. Tsui*

Membership Category	Member
9. Five Members elected by the Court	*Ms Wendy K.S. Gan* *Dr David T.Y. Mong* *Mr Jeffrey H.S. Tse* *Professor Richard Y.H. Yu* *Mr George K.H. Yuen*
10. Three Members elected by the Grant Schools Council	*Miss Maggie W.C. Chau* *Mr Frederick S.C. Poon* *Mr Dennis D.Y. Yuen*
11. Three Members elected by the Hong Kong Subsidised Secondary Schools Council	*Ms Lee Yi Ying* *Dr Halina S.H. Poon* *Mr Tam Kim Hung*
12. Not more than twenty members, not being already included in any of the foregoing classes, appointed by the Chancellor	*Professor Henry H.L. Chan* *Dr Philip N.L. Chen* *Dr Adrian C.K. Cheng* *Mr Ronnie K.Y. Cheng* *Mr David M.H. Fong* *Ms Sabrina W.Y. Fung* *Ms Pansy C.K. Ho* *Ms Belinda K.Y. Hung* *Dr Ko Wing Man* *Ir Edgar C.P. Kwan* *Dr Joseph C.T. Lee* *Mr Kenneth B. Li* *Professor Walton W.T. Li* *Ms Amy C.W. Lo* *Mr Sebastian S.W. Man* *Ms Beatrice Y.M. Mok* *The Hon. Jasper Y.S. Tsang* *Mr Joseph C.C. Wong* *Dr Alan H.L. Yu* *Dr the Hon. Allan Zeman*

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