

PhD Students Win Ernst Mach Grants for Research in Austria

Two PhD students – Alexandra Ridgway and Joanne Luk, both from the Department of Sociology – have been awarded the Ernst Mach Eurasia-Pacific Uninet Grant for the 2017-18 academic year. The Ernst Mach programme funds students from Eurasia Pacific Uninet's partner universities in Hong Kong, including HKU, to undertake research in Austria. In 2018, Alexandra will be attending the University of Vienna for six months under the guidance of Professor Elisabeth Scheibelhofer, whilst Joanne will spend eight months at the University of Salzburg hosted by Dr Eberhard Raithelhuber. Under Professor Scheibelhofer's guidance, Alexandra will be exploring the effectiveness of using problem-based interviewing as a qualitative research method with migrant populations in Hong Kong and Austria. Joanne will continue with her thesis writing under the supervision of Dr Raithelhuber, whilst engaging in a wide range of academic activities and gaining international teaching experience in the Department of Educational Science at the University of Salzburg.

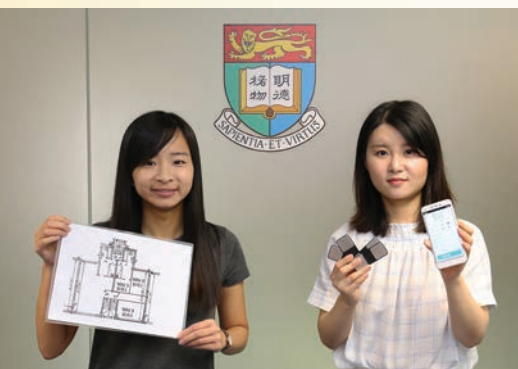


Joanne Luk (left) and Alexandra Ridgway (right) with their primary supervisor Professor Karen Joe Laidler

Both Alexandra and Joanne are supervised by Professor Karen Joe Laidler. Alexandra is co-supervised by Dr Julie Ham while Joanne is co-supervised by Dr Denise Tang.

Fulbright-RGC Hong Kong Research Scholar Awards Programme 2018-19

Two HKU PhD candidates will be sponsored by the Fulbright-RGC Hong Kong Research Scholar Award Programme 2018-19 to conduct their dissertations at elite institutions in the United States. The programme was launched by the Research Grants Council (RGC) in collaboration with the US Consulate General in Hong Kong and Macau, supported by commercial donors solicited by the Hong Kong-America Center. Congratulations go to the following award recipients from HKU:



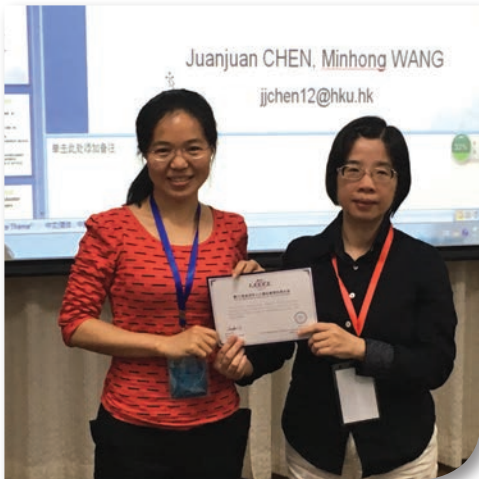
Ka-man Leung (left) and Huiying Liu

Ka-man Leung (PhD candidate, Department of Real Estate and Construction) will conduct her research on informal/low-income/affordable housing and institutional analysis on housing at the University of California, Los Angeles for six months. Ka-man's PhD thesis is a supply-side study of sub-divided units in Hong Kong. This exchange experience will provide a valuable chance for her to study informal housing, affordability problems and the impacts of poverty alleviation policies of different cities on low-income households and society as a whole.

The research interests of **Huiying Liu** (PhD candidate in the Department of Social Work and Social Administration) focus on social determinants of mental health among community adults. She will be spending six months at Washington University in St. Louis to identify dynamic patterns of active life engagement in different contexts for older adults in the US and China, and to determine the relative importance of these patterns for predicting health outcomes. Each participant will carry a smartphone loaded with an 'ecological momentary assessment' application to collect psychosocial data, and a smartphone-based electrocardiogram monitor for periodical recordings.

HKU and Harvard University Researchers Collaborate to Design 3-D Thinking Tool that Improves Inquiry Learning

Fiona Juanjuan Chen, a PhD student in the Faculty of Education, has participated in a collaborative project with the Graduate School of Education of Harvard University. The output of the project has been published in the *Journal of Research in Science Teaching*, a top-tier journal in science education. Fiona has also received the Faculty's Research Postgraduate Students Publication Award for another paper based on the project's output in the journal *Educational Technology & Society*.



Fiona Juanjuan Chen (left) and Dr Minhong Wang

The collaboration is between the Lab for Knowledge Management & E-Learning of HKU and the Harvard Graduate School of Education. The director of the HKU lab, Dr Minhong Wang, has been collaborating with Harvard colleagues Professor Chris Dede and Dr Tina Grotzer in research on improving students' science inquiry and problem-solving abilities by extending inquiry learning from classrooms to immersive virtual environments. A big challenge to inquiry learning is that many students experience difficulties managing the complex inquiry process and engaging in fruitful inquiry learning. It is therefore crucial to support students through the complex inquiry process and help them become accomplished problem-solvers. To address the challenge, Fiona and Dr Wang have designed an innovative three-dimensional thinking tool that helps learners to externalise the complex cognitive process of hypothesising and reasoning with complex problems. The approach has shown significant effects on improving student inquiry performance, knowledge gains, and self-confidence, as well as on narrowing the academic gap between low-level, medium-level, and high-level students.

New Vehicle Navigation Invention for Multilevel Road Networks Wins Gold at International Exhibition of Inventions

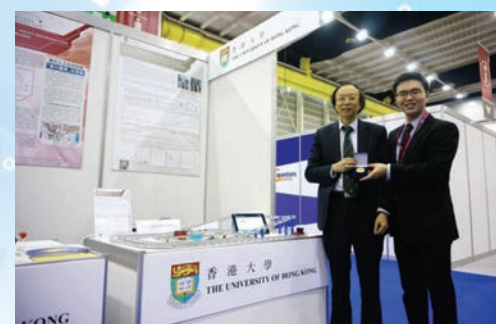
Professor Anthony Yeh – Department of Urban Planning and Design, HKUrban Lab, and Director of the GIS Research Centre and Fellow of the Institute of Transport Studies – together with his PhD graduates Dr Teng Zhong and Professor Yang Yue (currently Professor in the Shenzhen Key Laboratory of Spatial Smart Sensing and Services of Shenzhen University, China), won the Gold Medal at the 46th International Exhibition of Inventions Geneva (IEIG) in April 2018 for their invention 'Angle Difference Method for Vehicle Navigation in Multilevel Road Networks'. The invention, which has already obtained two international patents, compares the inclination angle of a vehicle with the ramp angles of different road levels stored in a transport GIS to determine whether a vehicle has entered the ramp of a flyover or is still on the ground level. It uses an ordinary smartphone that can be put anywhere at any angle in a vehicle with a plugged in or installed on-board diagnostic device.

The system provides a simple and inexpensive solution to solve the navigation problem of determining whether a vehicle has entered the ramp of a flyover or is still on the ground level, a problem that has existed since GPS was first used over 20 years ago. It will warn drivers instantly when they accidentally drive onto the wrong road level. Such timely information will reduce anxiety and uncertainty when driving in a complex multilevel road system, making driving more pleasant, smarter, and safer.

The IEIG, which is held annually in Geneva, Switzerland, is one of the most important exhibition on inventions today. Under the patronage of the Swiss Federal Government and the City of Geneva, this event showcases and highlights innovations and inventions from around the world. The IEIG 2018 had 822 exhibitors from 40 countries, and received over 30,000 visitors.



Exhibition of the Angle Difference Method for Vehicle Navigation in Multilevel Road Networks at the 46th IEIG



Professor Anthony Yeh (left) and Dr Teng Zhong win Gold Medal at the 46th IEIG

HKU Students Excel at Challenge Cup Hong Kong Competition

HKU has again won the Outstanding Organisation Award in the 'Challenge Cup' National Competition Hong Kong Regional Final – Hong Kong University Student Innovation and Entrepreneurship Competition 2018. Research postgraduate (RPg) students received three Second Prizes and two Third Prizes under the 'Innovation' category, and one Merit Prize in the 'Entrepreneurship' category.

Congratulations go to the following winners:

Award	Name of Project	Project Team Members
Category: Innovation		
Subject: Life Sciences		
Second Prize	Targeting ovarian cancer stemness and metastasis with dendrimer nanovector-mediated siRNA delivery	Jing Ma <i>(PhD student, School of Biological Sciences)</i>
Third Prize	Neuroplasticity of visual perception in balance control of spinal cord dysfunction patients	Xin Ma <i>(PhD student, Department of Electrical and Electronic Engineering)</i> Cong Yu <i>(PhD student, Department of Civil Engineering)</i>
Subject: Energy, Environmental and Chemical Engineering		
Third Prize	A low-cost portable cotton-based aluminium-air battery with high energy density	Wending Pan Yu Ho Kwok <i>(PhD students, Department of Mechanical Engineering)</i>
Subject: Information Technology		
Second Prize	Anti-interference technology: On-demand and tunable band-rejected UWB antenna based on peelable resonator membrane	Rong Wang <i>(PhD student, Department of Electrical and Electronic Engineering)</i>
Subject: Mathematics and Physics / Mechanics and Control Systems		
Second Prize	Digital electro-microfluidics platform for manipulating liquid marbles and its applications	Yage Zhang <i>(PhD student, Department of Mechanical Engineering)</i> Xiangyu Fu <i>(MPhil student, Department of Mechanical Engineering)</i>
Category: Entrepreneurship		
Start Up		
Merit Prize	Project ADEN	Zhou Liu <i>(PhD graduate, Department of Mechanical Engineering)</i> Ka Hong Cheng <i>(BEng(EngSc) graduate)</i> Huilian Peng <i>(MSc(Eng)(ME) graduate)</i>

The competition was organised by the Hong Kong New Generation Cultural Association. Winning teams may represent Hong Kong at the 'Challenge Cup' National University Student Innovation and Entrepreneurship Competition to be held in Zhejiang in November 2018.



PhD Students Win Young Investigator Awards at Liver Transplantation Joint International Congress

Two HKU PhD candidates and a PhD graduate, all from the Department of Surgery, won Young Investigator Awards at the Joint International Congress of the International Liver Transplantation Society, European Liver and Intestine Transplant Association, and Liver Intensive Care Group of Europe, held in Lisbon in May 2018. The awards aim to reward young researchers and doctors in the field of liver transplantation who show great promise and outstanding work in research.

Yin Fan Lam's awarded research aimed to identify differentially expressed miRNAs in the serum exosomes of hepatocellular carcinoma (HCC) patients with extrahepatic recurrence and to investigate the role and mechanism of identified miRNAs in HCC recurrence. This work implicated serum exosomal miR-1290 as a promising functional prognostic biomarker for HCC recurrence and as a potential therapeutic target.

Xinxiang Yang, a first-year PhD student under the supervision of Professor Kwan Man, won the award for his work that aimed to investigate the role of natural killer cells in liver graft injury and post-transplant tumour recurrence. Understanding the mechanism for how tumour cells avoid immune-surveillance provides novel insights in exploring clinically feasible approaches to cell-based cancer immunotherapies.

PhD graduate Dr Jiang Liu's research focused on the mechanism of post-transplant invasive fungal infections. His work aimed to solve the critical issue of severe invasive fungal infections after liver transplantation, and his hypotheses on the impairment of intestinal microfold cells provided a brand new mucosal immunological insight to study host-pathogen interaction during liver transplantation. Dr Liu's research has been recognised as one of the pioneering works in the field of intestinal mucosal immunology in liver graft injury after liver transplantation.



Left to right: Dr Jiang Liu, Xinxiang Yang, Yin Fan Lam and Professor Kwan Man with other winners

Interdisciplinary Research Competition 2018

The Interdisciplinary Research Competition (IRC) – jointly organised by the Graduate School, Graduate House and Postgraduate Student Association – was held for the second time on April 20, 2018. The IRC has been set up to promote interdisciplinarity, part of the University's 3+1 l's strategy, among postgraduate students.

Eight teams entered the final of the 2018 competition. The judging panel members were Professor Adam Jaworski, Associate Dean (Research) of the Faculty of Arts, Dr Shin Cheul Kim, Director of the Technology Transfer Office, and Professor Ben Young, Associate Dean (Innovation and Internship) of the Graduate School.

The champion award went to the project '3D Printing System for Cartilage Repair'. The winning team comprised Huihua Li, Ge Fang, Jianjun Mao and Lin Guo, who are PhD Candidates in Mechanical Engineering, and Yingqi Liu, PhD Candidate in Civil Engineering.



3rd HKSTP Internship & Career Expo @ HKU

The 3rd HKSTP Internship & Career Expo @ HKU was held on March 22, 2018 in Loke Yew Hall. The Expo was organised by the Graduate School, in collaboration with the Centre of Development and Resources for Students (CEDARS) and Graduate House of HKU as well as the Hong Kong Science and Technology Parks Corporation (HKSTP). It comprised over 40 exhibitors and offered hundreds of internship and job openings for our students to explore internship and career opportunities in the innovation and technology industry at HKSTP. Students were also able to network with professionals in the field and gain insights into developing marketable and transferrable skillsets through sharing by representatives from HKSTP and innovation and technology companies, including Mr Denis Huen, an HKU MPhil graduate and a startup founder at the Science Park.



Partnership of Teaching and Learning in RPg Education

Two workshops to help integrate a partnership model of teaching and learning in our research postgraduate (RPg) training were conducted by RPg students to their peers in May and June 2018, based on proposals called for in November 2017. The workshops gave the RPg 'teachers' the opportunity to develop, conduct and evaluate their own workshops, and they were appreciative of their teaching experience:

Workshop 1:

Efficient Writing and Time Management Skills

"I found the teaching experience very helpful to both develop my presentational skills and expand the range of subjects that I can teach. It was a great opportunity to interact with other students and explore some of the obstacles that we all face. As a result, it was a great platform to give my fellow students some good advice regarding the ways they can approach their research as well as allow students to share their experience with each other. All in all, I think it's a great opportunity for current RPg students to both contribute and learn."

Artem Sergeev

PhD candidate, Department of Law

Are you also interested in gaining rewarding teaching experience during your postgraduate education? Watch out for the next call for the partnership initiative in the first semester of the coming academic year!

Workshop 2:

Genome Editing in Mammalian Cells with CRISPR/Cas9

"The primary purpose of this workshop was to share with peer students our experience in using a very popular technology in our field, and to help them explore how the technology can be applied to their own projects. All twenty-one RPg students that registered for our workshop turned up despite heavy rain. They all actively participated in the workshop and could apply the knowledge we presented to solve the discussion questions. We are happy to see that we conducted a well-organised workshop and achieved our primary goal. However, it was not an easy mission for three of us. We did not sleep well for a while when preparing the workshop, and our workshop overran. Nonetheless, this is really an unforgettable experience and I appreciate the teamwork among the three of us, Claire, Karen and me too."

Jiayin Yang

PhD candidate, Department of Medicine

"Frankly speaking, I felt a little bit tense, nervous and even scared before this workshop. But in the end, I enjoyed the 5-hour workshop a lot. We had very good teamwork, and our team leader Jiayin gave me many useful suggestions. The process of preparing this workshop gave me the chance to consolidate my knowledge. In general, it is a great experience, and we all have benefitted from this workshop."

Xinru Ran

PhD candidate, Department of Medicine

"This was my first time organising a workshop. I am grateful to the Graduate School and my teammates for giving me this opportunity. Even though the preparation took us more time than expected, I learned a lot from running this workshop. It was quite a unique experience to me."

Rui Wei

PhD candidate, Department of Medicine

HKU Three Minute Thesis (3MT®) Competition 2018

On March 7, 2018, a total of 23 research postgraduate (RPg) students challenged themselves to present a compelling oration on their research project and its significance to a non-specialist audience in just three minutes in the HKU Three Minute Thesis (3MT®) Competition 2018, which was jointly organised by the Graduate School and the Knowledge Exchange Office.

The 3MT was developed by The University of Queensland, Australia in 2008 to celebrate the discoveries made by RPg students and encourage them to develop the skills to communicate the importance of their research to the broader community.

The guests of honour as well as the adjudicating panel of the final competition included Professor Lap-Chee Tsui, President of the Academy of Sciences of Hong Kong, Ms Priscilla Wong, JP, Barrister and HKU Council Member, and Ms Janice Chan, Director of the Hong Kong Women's Imaging Limited. Internal members of the adjudicating panel included Professor John Bacon-Shone, Associate Director of the Knowledge Exchange Office, who served as the Chairman of the panel, Professor John Kao, Vice-President and Pro-Vice-Chancellor (Global), Professor Pauline Chiu of the Department of Chemistry, Professor Maggy Lee of the Department of Sociology and Professor Ben Young, Associate Dean (Innovation and Internship) of the Graduate School.

Congratulations to all the winners of the HKU 3MT Competition 2018:



Champion

People's Choice Award (selected by audience ballot)

Name: Mei Li Khong (PhD candidate, Li Ka Shing Faculty of Medicine)
Presentation Title: Too Many P-s Spoil the Protein
Primary Supervisor: Dr Julian Alexander Tanner



1st Runner-up

Name: Jasmeen Kaur Sethi (PhD candidate, Li Ka Shing Faculty of Medicine)
Presentation Title: The Ovarian Cancer Games: Catching HNF-1 β targets
Primary Supervisor: Professor Annie Nga Yin Cheung



2nd Runner-up

Online People's Choice Award (the finalist who has the most 'Likes' on YouTube)

Name: Pang Chong (MPhil candidate, Faculty of Arts)
Presentation Title: Altruism or Opportunism: International humanitarian assistance to Japan following the 3.11 Disaster
Primary Supervisor: Professor John Charles Schencking

Videos of the presentations of the awardees and finalists are available at <http://www.ke.hku.hk/hku3mt/index.php/competition/2018/2018-videos-of-finalists-and-awardees>.

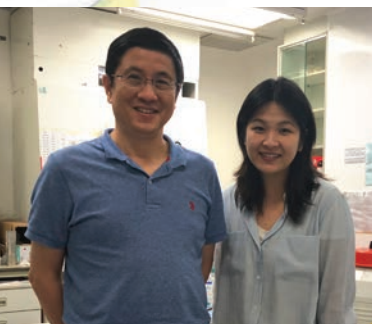


Standing on the Shoulders of Giants

An alumni story of Dr Stephanie Kwai Yee Ma

“If I have seen further than others, it is by standing upon the shoulders of giants.”

Sir Isaac Newton



Dr Ma (right) with her PhD supervisor Professor Xin-Yuan Guan

The young Stephanie Ma moved at an early age with her family from Hong Kong to Vancouver, Canada. Throughout her school years, although she claims that she was a ‘curious child’, she had no idea in which direction her future career path would lead.

At the University of British Columbia (UBC) she explored different avenues of scientific study, but Dr Ma explains that her initial interest in cancer stemmed from her exposure to prostate cancer research during her final-year project studies at the British Columbia Cancer Research Centre. There was, however, a more personal motivation for focussing on cancer research that was much closer to her heart. “All of my grandparents have passed away from different types of cancer,” she sadly reveals. “Of course nowadays I don’t think there is anyone that doesn’t know someone affected by cancer.”

After obtaining her Bachelor’s and Master’s degrees at UBC, she returned to Hong Kong. Now came a time of exploration and challenge. With the support of her family she settled back into Hong Kong life and secured a place at HKU, where she came face to face with a ‘giant’. This was no storybook giant but someone of great stature in Stephanie’s world of academia – her mentor and PhD supervisor, Professor Xin-Yuan Guan of the Department of Clinical Oncology.

“Professor Xin-Yuan Guan is the one that introduced me to the field of cancer stem cell research. He has been very inspirational to my academic life. He has taught me to move out of my comfort zone, try new things. He has been a great role model for me.”

Dr Ma has many achievements, publications and awards to her name. Looking back, she highlights the Croucher Innovation Award. She is very proud of having been presented with this very prestigious and lucrative award, but is very quick to emphasise that this, like many of her successes, was largely due to teamwork. “I am grateful for each of my dedicated lab members, past and present, for their hard work, and for sharing the same dream and passion for cancer research.”

Now as an Assistant Professor in the School of Biomedical Sciences, HKU, Dr Ma’s burning passion is her work. Her research is on exploiting stemness as

cancer cell vulnerability, with a goal of translating the research from the lab to the clinic.

“The most positive outcome that I would like to see from our work would be translating our basic research in the lab to the clinic where a new drug specifically targeted at cancer stem cells can be used for patients. If the cancer stem cells (i.e. the roots of cancer) can be killed, then there will be no room for tumour recurrence.”

Her commitment to her work spills over into her home life where another ‘giant’ shares her highs and lows. Dr Ma is very grateful to her husband Terence who is her tower of strength in terms of support, understanding and companionship: “We are a good team and we complement each other. Together we are on a journey in science”.

With STEM education as her newly found interest, this dynamic scientist can be found at the top of a ladder dropping water balloons or engaging in science experiments with energy sticks. This interaction with school children is part of ‘What’s it like being a Scientist?’ (‘The Galileo Show’), which featured at last year’s Hong Kong Science Festival. It is an exciting opportunity for her to share her knowledge and to stimulate the curiosity of children.

Now as a mentor herself, Dr Ma’s advice to those starting out on research postgraduate studies is: “Take advantage of every opportunity that presents itself. Do everything, even though it may not seem relevant at the time. Keep motivated, curious and passionate.”

So, as Galileo sought the truth through the lens of his telescope, may Dr Stephanie Ma continue to harness that curiosity of her childhood as she seeks answers through the lens of her microscope: ‘standing on the shoulders of giants’

Dr Ma (right) with her team



New Graduate School Member

The Graduate School is pleased to announce that Professor Cecilia Cheng has been appointed as Associate Dean (Courses and Professional Development) of the Graduate School to succeed Professor Sam Po Law with effect from July 1, 2018.

Professor Cheng is a Professor in the Department of Psychology and she specialises in personality, social, health, and cross-cultural psychology. She is an elected Fellow of the Association for Psychological Science and has served as the Board Secretary of the International Council of Psychologists (ICP). She has received the Fulbright Senior Scholar Award, Cambridge Hughes Hall Fellowship, ICP Early Career Research Award, and Research Grants Council Humanities and Social Sciences Prestigious Fellowship. Before assuming the role of Associate Dean (Courses and Professional Development) in the Graduate School, Professor Cheng has served in several major positions such as Associate Dean (Postgraduate Education) of the Faculty of Social Sciences, Chairperson of the Faculty Higher Degrees Committee, Chairperson of the Departmental Research Postgraduate Committee, and Member of the Board of Graduate Studies.



Our warmest welcome is extended to Professor Cheng. We would also like to take this opportunity to thank Professor Law for her valuable contributions to the Graduate School during her Associate Deanship, including launching *Dialogues between Veteran and Aspiring Researchers*, *Grant Writing Workshops for RPs*, and *Partnerships in Teaching and Learning in RPg Education*.

Graduate School Dialogues Series

The Graduate School would like to thank the following guests for their inspiring and generous sharing with research postgraduate students in the dialogue sessions held in Semester 2, 2017-18:

Dialogues between Veteran and Aspiring Researchers

Professor Helen Siu

Professor of Anthropology
Yale University

Professor Andy Hargreaves

Thomas More Brennan Chair in Education
Boston College

Professor Jeremy Jackson and Professor Nancy Knowlton

Smithsonian Institution

Dialogues with Croucher Innovation Awardees

Dr Heming Cui

Assistant Professor
Department of Computer Science, HKU

Dr Stephanie Ma

Assistant Professor
School of Biomedical Sciences, HKU

Dialogues with Entrepreneurs

Dr Kenneth Lai

Executive Director / Founder
Novus Life Sciences Ltd

Updates on HKPF Scheme

Starting from July 1, 2018, the monthly scholarship of the Hong Kong PhD Fellowship (HKPF) Scheme will be adjusted from \$20,000 to \$25,100 and the conference and research-related travel allowance from \$10,000 to \$12,600 per year respectively. The adjustments will be applicable to both current and new awardees of the HKPF Scheme.

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