

Writing Boot Camp: Increasing Productivity and Building a Community for Writing Support

A new Graduate School initiative for Research Postgraduate students – Writing Boot Camp – was held for the first time from October 12 to 14, 2015.

The Boot Camp concept uses an intensive format to help students focus on their writing strategies and motivation in the process of thesis completion. The workshop involves input on productive strategies and metatext from facilitators and experience-sharing from guest speakers – Dr Selina Lai-Henderson and Dr Vikki Li Yan in this first workshop – but a key ingredient is several hours of writing time daily.

The communal writing experience offers an alternative to the usually rather isolated individual thesis-writing situation, encouraging sharing and peer-support.

For this first workshop, Robert Black College on the HKU campus provided the perfect environment for the concentrated effort that Writing Boot Camp engenders.

Participants from a wide range of Faculties were enthusiastic about their experience, as indicated in this selection of written evaluative comments:

"Thanks to Boot Camp I was able for the first time to measure my progress in a focused environment having in mind only about WRITING."

"I enjoyed the writing atmosphere there and the convenient help from facilitators."

"(To sustain the Boot Camp experience, I will...) ...form a study group with peers and set some goals for writing productively."

"(I liked...) The location, the environment and the presence of our facilitators. It was important as a continuous and intensive activity focusing only on improving writing. This workshop was critical for taking me out of the inertia zone."

"Bringing in past PhD students to share their experiences... was very helpful."

"The Workshop addresses most difficulties I face in writing."



HKU Botanists Discover a New Plant Growth Technology that may Alleviate Climate Change and Food Shortage

Dr Lim Boon-leong, Associate Professor from the School of Biological Sciences, and his research team, including PhD graduate Dr Law Yee-song, have developed a new strategy to promote plant growth and increase seed yield by 38% to 57% in a model plant *Arabidopsis thaliana*. This strategy has the potential to increase carbon dioxide (CO₂) absorption from the atmosphere by plants and hence contribute to slowing down the rate of global warming.

In this technology, the researchers have identified a plant-growth promoting gene, designated as 'Purple acid phosphatase 2' (AtPAP2), from the model plant *Arabidopsis thaliana*. AtPAP2 is dually targeted to two energy-generating organelles of plant cells: chloroplasts and mitochondria. Chloroplasts carry out photosynthesis, a process that converts CO₂ in the atmosphere into sugars using solar energy. The

sugars are then used for plant growth including cell wall, biomass and seeds, or consumed by mitochondria to produce adenosine triphosphate (ATP), an important energy source for many cellular processes. AtPAP2 can modulate the import of a number of specific proteins into chloroplasts and mitochondria, and subsequently boost their capability to harvest solar energy and generate ATP. AtPAP2 is found to be the first protein that can modulate energy outputs from these two organelles simultaneously.

This is the first study of AtPAP2 in the world. In addition to slowing down the rate of global warming by increasing the rate of CO₂ absorption, this technology may also have potential in boosting food production and thus could solve another danger to human civilisation: food shortage due to overpopulation. The findings from the study have been reported in international

conferences and journals including *Plant Physiology*, *Biofuels* and *Biotechnology*, and yielded several patent applications.

(This article is adapted from http://www.hku.hk/press/news_detail_13383.html.)

Dr Lim Boon-leong (left) and Dr Law Yee-song





Meeting 'Social' Robots in Japan

I'm a second year Anthropology PhD student and Hong Kong PhD Fellowship (HKPF) recipient at the Hong Kong Institute for the Humanities and Social Sciences. You may be surprised to hear that it's possible to do a PhD in Anthropology at HKU, as we have no Anthropology department. You may also be surprised to hear that the subject of my research is Japanese robotics – not a topic conventionally associated with the study of humans! But I'm very happy to report that HKU is a place that supports and encourages such unconventional endeavours.

In particular, I'm focusing on the use of 'social' robots (robots that interact in some sociable way with the user) for elderly care in Japan. The interdisciplinary study of interaction between robots and people has become a huge field as the development and use of such robots has accelerated, particularly in Japan – so it's a very exciting time to be working in this area.

I was recently lucky enough to be awarded the Institute's Sin Wai-Kin Junior Fellowship, which enabled me to spend two months over the summer studying advanced Japanese in a language programme based in Hokkaido, to facilitate my fieldwork in Japan next year. I had the opportunity to meet SoftBank's new 'Pepper' robot, conduct interviews and build my network with various robot experts.

I was also able to organise fieldwork at Japan's National Institute of Advanced Industrial Science and Technology next year as a visiting researcher, which is a fantastic prospect as they are closely involved in social robot research and development. This fieldwork will be supported in part by the Konosuke Matsushita Memorial Fund, which sponsors research in Japanese Studies.

One of the great things about HKU is the wealth of opportunities presented both in terms of guidance and funds available to help build a fulfilling academic career. The support and encouragement I've received from academic and administrative staff at the university has been fantastic and really helped to boost my research. In addition, the opportunity to attend classes and events, and make use of libraries and other facilities, at all of the other universities in Hong Kong means that I've been able to meet many contacts working in related fields around the city.

I'm looking forward to another exciting and challenging year trying to get to grips with what the next generation of robots has in store for ageing populations in Japan, Europe – and Hong Kong.

James Wright

PhD Candidate, Hong Kong Institute for the Humanities and Social Sciences

Achievements of Our Students

Dr TIAN Tian (PhD Candidate, Faculty of Dentistry) has received the 2015 International Association for Dental Research (IADR) Prosthodontics Group Student Research Fellowship for her research entitled 'Evaluation of bonding durability between computer-aided design/computer-aided machining (CAD/CAM) ceramics and resin cement'. The Fellowship is administered by the IADR Prosthodontics Group (PG) and co-sponsored by VITA Zahnfabrik and the IADR PG to encourage dental students, residents, and graduate students to consider careers in oral health research related to the topic of prosthodontics. Dr Tian's research aims to evaluate the bonding durability of six resin-cements when bonded to three different ceramics produced through CAD/CAM using a microtensile bond strength test to improve the clinical longevity of ceramic restorations.



Evaluating Reproducibility in Psychological Research

Two PhD candidates from the Faculty of Education, Cathy Hung and Lin Lin, and 268 co-authors investigating the reproducibility of psychological science published their findings in *Science* in August 2015. The Reproducibility Project: Psychology, launched nearly four years ago, has produced the most comprehensive investigation ever done about the rate and predictors of reproducibility in a field of science. The project conducted replications of 100 published findings in three prominent psychology journals. They found that regardless of the analytic method or criteria used, fewer than half of their replications produced the same findings as the original study. This held true across multiple different criteria of success. The team noted three basic reasons this might occur: (1) Even though most replication teams worked with the original authors to use the same materials and methods, small differences in when, where, or how the replication was carried out might have influenced the results. (2) The replication might have failed to detect the original result by chance. (3) The original result might have been a false positive.

Johanna Cohoon, one of the Project Coordinators from the Center for Open Science, concluded that “the findings demonstrate that reproducing original results may be more difficult than is presently assumed, and interventions may be needed to improve reproducibility.”

Many organisations, funders, journals, and publishers are already working on improving reproducibility. For example, in 2014, the journal *Psychological Science* – one of the journals included in this study – implemented practices such as badges to acknowledge open sharing of materials and data to improve reproducibility. “Efforts



Lin Lin (left) and Cathy Hung

include increasing transparency of original research materials, code, and data so that other teams can more accurately assess, replicate, and extend the original research, and pre-registration of research designs to increase the robustness of the inferences drawn from the statistical analyses applied to research results,” said Denny Borsboom, a team member from the University of Amsterdam who was also involved in the creation of the Transparency and Openness Promotion (TOP) Guidelines published in *Science* in June 2015.

More information

1. *Science* publication of the results of the Reproducibility Project: Psychology: (<http://www.sciencemag.org/content/349/6251/aac4716.short>)

Hung On Ying Cathy

PhD Candidate, Faculty of Education

Miss LAU Yuen Yung Jenny (PhD Candidate, School of Biological Sciences) came second in the FameLab Competition 2015 organised by the British Council in Hong Kong. In the competition, contestants are given three minutes to present a scientific topic to an audience and a panel of expert judges in an entertaining, original, and scientifically accurate manner. The winner will join the FameLab International competition at the Cheltenham Science Festival in the UK as a Hong Kong representative.

Miss Lau's topic for the competition was 'HOT and SEXY: How flowers attract and reward beetle pollinators'. Her research team found that some flowers in tropical forests are several degrees Celsius warmer than the surrounding air. It is believed that the elevated temperature makes the beetles hot and more active. Also, when the flowers warm up, sex pheromones – chemicals that are usually produced by female insects to attract males to have sex that are also produced by these flowers – vaporise and spread more quickly. So small beetle pollinators are easily attracted to these flowers to have sex inside the floral chamber. At the same time, the flowers benefit from these small beetles transferring pollen grains for successful pollination, hence assuring reproduction.



Gaining Valuable Exposure through International Activities

I had a really interesting and busy summer this year. I was selected to attend two major international events in my area of research: the 14th International Conference on the History of Science in East Asia (Paris, July 6-10), supported by the Hong Kong PhD Fellowship Scheme of the Research Grants Council of Hong Kong, and the Advanced Training Workshop on 'Humanities, Social Sciences and Medicine in East Asia: Interdisciplinary Approaches' (Beijing, August 10-17), supported by the organisers of the event – Hong Kong Institute for the Humanities and Social Sciences of HKU, Harvard-Yenching Institute, Peking University, and Nankai University.

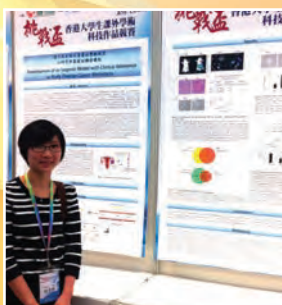


My summer started in Paris. This was my first experience presenting a paper at an international conference, and it was a very enriching experience. The host of this conference was the Ecole des Hautes Etudes en Sciences Sociales, the headquarters of the distinguished Annales School, a highly influential school of historiography well known for its interdisciplinary approach to social history. I gave my presentation on the second day of the conference. My supervisor served as the chair of our panel. It was both amazing and stressful to see so many top scholars in my field sitting in the audience. My paper focused on the history of a rural traditional medicine market in North China, and was presented at a panel entitled "Localism in Qing Medicine". I really cherished the opportunity to discuss my paper with panel participants and members of the audience.

The second event of the summer was a seven-day workshop in Beijing that featured lectures, group discussions, field trips, and team work. The presence of seven well-known scholars from the field of medical humanities, together with twenty trainees selected from renowned institutions all over the world, made the workshop really impressive. The creative virtual museum exhibition project was particularly interesting and challenging for trainees. I also found the experience of trying to reach a consensus with team members from different disciplines very enriching, as we all had to think about the best way to make our ideas accessible to a wide audience. These two activities gave me invaluable insights on the challenges of interdisciplinary collaboration, but I also learned that engaging in academic exchanges with scholars working on diverse topics is a very rewarding experience. It's more important to get a wide range of knowledge about what's going on in your field than to focus only on your own specific topic.

Liu Xiaomeng

PhD Candidate, Hong Kong Institute for the Humanities and Social Sciences



Dr TO Kit Yan (PhD graduate, School of Biological Sciences) won third prize in the 2015 Challenge Cup Hong Kong University Students Extra-curriculum Technology Contest with her research 'Development of an isogenic model with clinical relevance to study ovarian cancer metastasis'. The contest was held by the Hong Kong New Generation Cultural Association to offer an opportunity for academic exchange and also a platform to search for innovative talents from Hong Kong's tertiary institutions. The winners may represent Hong Kong in the Challenge Cup National University Students Extra-curriculum Technology Contest, a biennial national competition for university students in China that promotes innovation in social science, science and technology.



Changing Perspectives from Student to Faculty Member

- Alumni interview with Dr Lai Cora Sau Wan

As a child growing up in the New Territories, Dr Lai Cora Sau Wan was fascinated by the natural world on her doorstep, and at a very early age she knew that science was her vocation. Botany was her first love, but for her BSc at The University of Hong Kong (HKU) she studied animal biotechnology, which resulted in her first exposure to neuroscience. "It was not a big topic at that time, but when it came to finding a postgraduate field of specialisation, it attracted my interest," she says. After completing her PhD studies, in 2009, Dr Lai headed for the US, where she joined the Skirball Institute of Biomolecular Medicine in the Langone NYU Medical Center (New York, USA) for postdoctoral training. At NYU, she worked on intravital imaging of the mouse central nervous system in learning and memory, particularly in studying synaptic plasticity in fear associative learning.

After five years at NYU, family ties and the desire to contribute to local science education drew Dr Lai back to Hong Kong. At the start of the 2014-15 academic year, she returned to her alma mater as an Assistant Professor in the School of Biomedical Sciences. She found the environment greatly changed with a brand new campus and much more emphasis on technology. She has had to adjust to her new role. "As a faculty member I have to look at things from a different perspective. I have to focus beyond my own research (on synaptic plasticity in learning and memory) and tackle other duties including administration and teaching."

Research resources are generally better in US universities, says Dr Lai, but she was surprised and shocked at the attitude to women scientists and the gender imbalance in her field. She encountered many comments to the effect that women are not always hired on merit, and that affirmative action programmes make it easier for them to be appointed to an academic position. "I found this attitude upsetting. Numbers are still unbalanced in the US, so this is self-evidently not true."

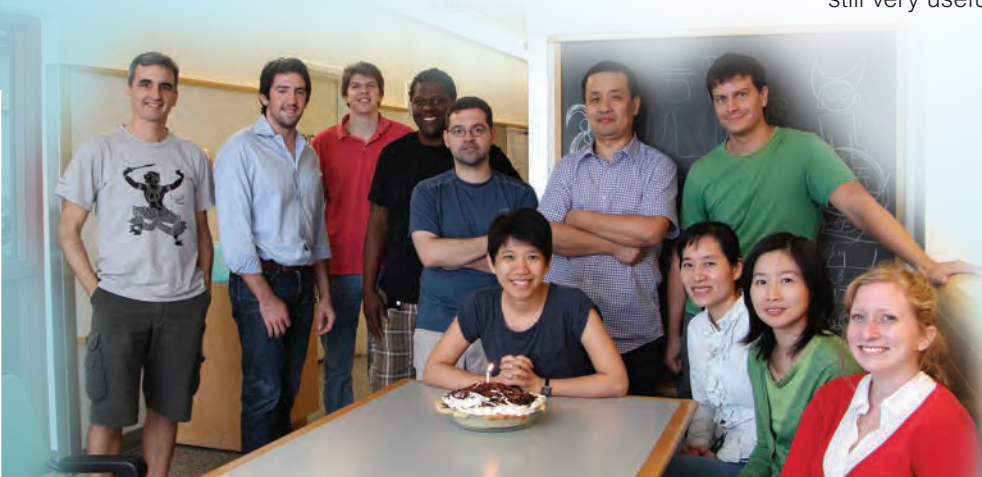
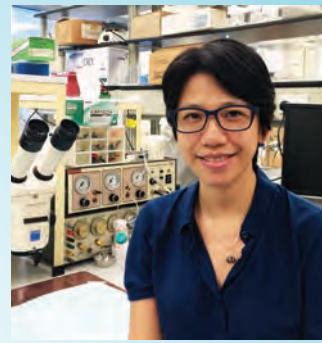
"I have never encountered attitudes like this in Hong Kong. There is still a marked imbalance here, but I

see fewer obstacles for women scientists in Hong Kong. The trend is changing and it will change more. In my department, perhaps one third of the faculty members are female and a lot of young women scientists are joining the faculty. This is the age band when people start to think about having a family and there is a lot of pressure on the women scientists. It's good news that the faculty will soon have a designated 'Mothers' room', but if we want better representation of females in the science faculty in HKU, we can do more to help. The pressures are heavy for those with family. I'm single, so I am not speaking for myself, but I speak for my peers, I feel pain for them."

"A decade before my generation, most scientists were men. About half of my classmates were female when I was an undergraduate. People leave the field for various reasons and I'm the first to fill a faculty post, but the Hong Kong pipeline is good in terms of the number of undergraduate women students who could become faculty members in the future. Ten years hence I expect to see more female scientists: if the numbers don't balance by that time, there is something wrong and we need help."

Hong Kong should invest more in scientific education, says Dr Lai. "Considering our GDP and our aspirations as an international city, the investment is much lower than in other places in the region including Taiwan and Shenzhen."

When potential postgraduate students approach Dr Lai for advice she encourages them to spend time in the outside world before returning to academia. "The usual path is to go direct from undergraduate to postgraduate, but I don't agree with that. I worked in marketing with two different companies before starting on my postgraduate studies. I learned a lot from the outside world – interpersonal skills and how to handle failure – which is still very useful to me today."



Living a ‘European Dream’ in the ‘Bruges Bubble’

I had a ‘European dream’, and the dream came true in Bruges.

When I first heard about the College of Europe while doing my PhD of European Studies at HKU, I never imagined that I would spend one year doing a Master of EU International Relations and Diplomacy there in a medieval town called Bruges.

For tourists, Bruges means a fairy-tale, with bell towers, Gothic churches, cobbled stones, horse and carts, canals, boats, windmills, chocolates and beers...all the romantic elements you can imagine. For some students of the College of Europe, Bruges means a bubble, simply because it is too beautiful to be true. For me, Bruges means more – it means also a European dream.

And I will tell you what the European dream means.

As a student of European Studies, I could not think of a better place to study Europe than the College of Europe in Bruges, which – as indicated in its name – might qualify as the most ‘European’ college in the world. It was in this place that I came to realise what Europe really means. It means diversity, with 300 students from more than 50 countries bringing to the College a rich diversity of languages, cultures and personal experiences. It means unity, as the diversified student body all share the ‘*esprit de Bruges*’, representing a sincere solidarity that is crucial to a Europe entangled by all sorts of crises. There the motto ‘unity in diversity’ does not rest only on paper, but becomes a way of life. Following an intensive programme in such an environment thus allowed me not only to learn Europe, but also to “live” Europe.

I was lucky to be part of this diversity. Being one of the two Chinese students in the College, I also saw it as a mission to contribute to this diversity by bringing China closer to the College, which led me to initiate and create with my fellow students the first ‘China Group’ in the College. Within the framework of the group, we organised debates, presentations, a movie screening, a Chinese dinner, a study visit to the Chinese Mission and HK Trade Office in Brussels, and so on. My efforts were not limited to within the College, and the sense of mission motivated me to represent China at the 4th Europe-China Forum in Brussels and the 1st EURO-BRICS Young Leaders Summit in Helsinki.

The year in Bruges has also been a great stepping stone for my research at HKU. For a mainland Chinese student studying Europe in Hong Kong, nothing else could replace the experience of studying and living with the College’s highly-qualified students and renowned professors. The ‘play hard, work harder’ tradition in the College also paid off for me. I was the first Chinese student in College history to win the Inbev-Baillet-Latour Award for the Best Thesis on EU-China relations. This was accompanied by some 8 publications in journals, magazines or newspapers such as *E-International Relations*, *Eurasia Review*, *The Diplomat*, *the EU-China Observer*, and *the South China Morning Post*. Most importantly, I was accepted for a one-month study visit to the European Parliament DG External Policies, which has been invaluable for the current research project in HKU.

There is so much more to share about the College that I do not know where to end: a study visit to Geneva, simulation games, a NATO visit, paper deadlines, national weeks, parties, bar nights, hangovers, beers after exams, drinks with the Mayor, breakfasts, canteen foods, coffee machines, making Christmas trees, a boat race...



All this would have been impossible without the support of my supervisors Dr Roland Vogt and Dr Andreas Leutzsch, my fellow student Thomas Stiegler, as well as the support of the School of Modern Languages and Cultures, Faculty of Arts and HKU Graduate School. I express my deep gratitude and appreciation to them all.

Vive ‘*l’esprit de Bruges*’!

Yan Shaohua
PhD Candidate,

School of Modern Languages and Cultures (European Studies)

A Greener Hong Kong through Radio



In what other major city in the world can you see wild porcupines, pink dolphins, and corals all within a stone's throw of the city centre? Hong Kong's natural environment is not just truly unique, but it has an marvellous ability to survive and thrive next to a city of 7 million people is awe-inspiring. Through encounters with this amazing wildlife, I was inspired, along with marine biology PhD student Inga Conti-Jerpe and HKU alumnus Fei Hung, to pursue an opportunity with RTHK's Community Involvement Broadcasting Service to develop 13 half-hour radio episodes showcasing Hong Kong's nature and exploring how we interact with it.

"Green Hong Kong - Eco-lifestyle in a Big City" aired this July to October on RTHK's DAB31, and featured an array of community members who are working to foster our connection with this environment. The main idea we wanted to explore was that as humans we rely on the environment to sustain us, regardless of what kind of lifestyle we lead: we need air to breathe, water to drink, and food to eat.

From HKU, we interviewed Dr David Baker, a marine biologist who studies the ecology of corals in Hong Kong. Given the hundreds of years that humans and corals have coexisted here in Hong Kong, Dr Baker's team has a unique opportunity to study the long-term

human impact on the seas. We also sat down with Dr Sam Hui from the Department of Mechanical Engineering, who told us about benefits of "greening" buildings and the rising problem of urban heat islands. Other guests, from local community organizations and universities, shared their knowledge on air pollution, pedestrian-friendly urban design, seafood sustainability, and urban farming, among other topics. One worrisome topic, however, is waste management, particularly plastics. Two episodes were dedicated to this issue and featured interviews with Nissa Marion of the Hong Kong Cleanup Challenge and the Environmental Protection Department.

Given Hong Kong's natural environment, we have a unique opportunity to transform our city into an amazing emblem of a "green city". Hong Kong, however, has a long way to go, and we need a greater awareness and commitment to the environment from individuals, the government, and businesses to help protect this special place that keeps us alive.

Epilogue: As part of the show, a member of the community showed me a trash-strewn beach in Kennedy Town. I couldn't leave this beach in this state, although this is unfortunately a common sight in Hong Kong. On October 24, a group of students and hikers from HongKongHikers.org set about cleaning it up, and we collected 1800 recyclable plastic bottles and 55 bags of garbage. We even found a credit card from 1984, which perfectly illustrates how long plastic waste is here to stay! We hope our HKU community will recognize that the convenient plastics we use in our daily lives for just a few minutes cause hundreds of years of environmental damage.

Please enjoy the Green Hong Kong radio episodes (in English with some Cantonese supplement) at http://programme.rthk.hk/channel/radio/programme.php?name=dab31/p0119_green_hong_kong&p=6926. Or find out more information about the episodes and what you can do to help make a difference at greenhongkong.blogspot.com.

Kathryn H Davies

PhD Candidate, School of Humanities (Music)

Produced by:
The Graduate School,
P403, Graduate House,
The University of Hong Kong,
Pokfulam Road, Hong Kong.



EDITORIAL TEAM

Professor Nirmala Rao (*Dean, Graduate School*)
Mrs Betty Tsui (*Graduate School*)
Ms Vicki Geall (*Technical Writer, Research Services*)

Tel: 2857-3470 Fax: 2857-3543
E-mail: gradsch@hku.hk Url: <http://www.hku.hk/gradsch/>