

HONG KONG BAPTIST UNIVERSITY
Talent 100 PhD Scholarship Scheme (2021-2022 Cohort)
List of Potential Principal Supervisors

No.	Name	Faculty/ School/ AVA	Department	Research Interests	Research Profile	Preferred Student's Background
System Health Lab						
1	Dr Rongjun YU	Business	Management	<p>Dr YU studies why people make suboptimal decisions, especially in social contexts and business settings. His research interests include Neuroeconomics, Social Neuroscience, and Computational Psychiatry; His lab mainly uses brain imaging methods (fMRI/EEG/fNIRS) combined with experimental tasks to study the neuropsychological mechanisms of economic and social decision making.</p> <p>Prof. Xu HUANG (https://mgnt.hkbu.edu.hk/eng/faculty/academic-and-teaching-staff/admin-details.jsp?id=xhuangHKB&cv=00069&cid=138&cp=1) will serve as the Co-I.</p>	http://www.rongjunyu.org/	Management, Psychology, Neuroscience.
2	Dr Yupeng LI	Communication	Journalism	<p>Dr LI's research interests are network science, machine learning, algorithm design, and ethics of AI; He is also excited about interdisciplinary research that applies algorithmic techniques to edging problems and involves interesting theory, algorithmic solutions and direct applications; Recently, he focuses on "Robust online machine learning and their applications".</p>	<p>https://www.dropbox.com/s/sbidsjwe0ngqkb/CV_Yupeng%20Li.pdf?dl=0</p> <p>http://www.jour.hkbu.edu.hk/faculty-member/dr-li-yupeng/</p>	<p>Students are preferred with but not limited to AI, data science, network science, or computational social science related educational background or research experiences. Students who are interested in fundamental research problems that are important and essential to our daily life, and particularly interested in the below interdisciplinary research projects, are welcome to contact Dr LI for more information:</p> <p>(1) Robust Machine Learning against Malicious Manipulation and its Applications (2) The Ethics of Artificial Intelligence with Applications in Social Media</p>
3	Dr Céline Yunya SONG	Communication	Journalism	<p>Dr SONG's research cuts across global communication, social computing, computer-mediated networks, social media analytics, cyber-psychology and behaviour. Her scholarship has straddled English, French and Chinese cultures and media.</p> <p>Dr Xian YANG (https://www.comp.hkbu.edu.hk/v1/?page=profile&id=xianyang) will serve as the Co-I. Her main research interests are artificial intelligence, natural language processing, data mining and dynamic modelling. One of her recent focus is text mining in the domain of healthcare.</p>	<p>http://www.jour.hkbu.edu.hk/faculty-member/celine-song-yunya/</p> <p>https://research.hkbu.edu.hk/researcher/celine-song</p>	<p>Students who are interested in developing artificial intelligence for real-world applications in social science (e.g. social media analysis) would be ideal candidates. Preferred background includes coding skills and data mining.</p>
4	Dr Angelo H ALL	Science	Chemistry	<p>The focus of Dr ALL's research is investigating application of nanomaterials, in particular upconversion nanoparticles, for the neuromodulation using Optogenetics tools as well as drug delivery to the nervous system. Their aim is to develop a semi-invasive tool for stimulating or inhibiting, with spatio-temporal precision, neuropathways situated deep in the nervous system selectively. They use both in vitro and in vivo models to investigate the progress of the injury, repair, and regeneration.</p> <p>His translational research projects also involve stem cell replacement therapy derived from human embryonic stem cells, human iPS cells, and direct conversion by trans-differentiation of human adult cells. These stem cells are also modified to induce overexpression of neurotrophic factors in order to modulate the lesion microenvironment and stimulate endogenous regenerative responses post injury.</p> <p>They also use neuro-electrophysiology to objectively assess neuropathways function as well as different imaging techniques to monitor anatomical changes in the nervous system architectures at various time points and tracking the extent of injury to determine the therapeutic benefits of the various treatment strategies.</p>	<p>https://scholar.google.com/citations?user=jeLVQUYAAAAJ&hl=en</p> <p>https://chem.hkbu.edu.hk/Angelo-Lab</p> <p>https://interdisciplinary-research.hkbu.edu.hk/people/angelo-h-all</p>	<p>Open to all Chemistry, Biomedical, and Neuroscience fields.</p>

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5	Prof. Zongwei CAI	Science	Chemistry	<p>Toxicological effects associated with human exposure to exogenous chemicals have drawn increasing attention. A growing number of pollutants were detected in our environment, including industrial chemicals, drugs, personal care products and food additives. Continuous pollutant exposure could induce various adverse effects in endocrine system, neurological system and respiratory system, making a threat to human health. Toxicological studies evaluate various adverse effects observed after the pollutants exposure at environment-related dose levels. Based on the analysis of biological fluids and tissue homogenates, the parent pollutants and its endogenous and exogenous metabolites are analyzed qualitatively and quantitatively by using various mass spectrometry-based techniques.</p> <p>Dr Jianing WANG (https://chem.hkbu.edu.hk/jnwang) will serve as the Co-I.</p>	https://chem.hkbu.edu.hk/cai	Analytical Chemistry, or Computer Science.
6	Dr Liang TIAN	Science	Physics	<p>Prof. WONG has been devoted to developing potential multi-functional metal-based luminescent molecular systems/nanomaterials for biological applications with the use of lanthanides and peptides. Mr research directions are:</p> <ol style="list-style-type: none"> (1) Ending the Epstein-Barr virus (EBV) associated cancer diseases (2) Fundamental and predetermined spectroscopy studies of luminescent (3) Photodynamic therapy (PDT) (4) Multi-modal prodrug (5) Identification of biomarkers and develop their early diagnosis kits for prostate cancer 	https://physics.hkbu.edu.hk/people/tian-liang	The preferred student is expected to have a background in one or more of the following fields: Physics, Biology, Computer Science, or Mathematics. Excellent organizational and interpersonal skills, along with a stated interest in scientific research, are essential. Computer programming and analytic experience with large dataset is a plus.
7	Dr Jun WANG	Science	Chemistry	<p>Asymmetric catalysis, synthetic methodology, Chinese medicine, including:</p> <ol style="list-style-type: none"> (1) Asymmetric synthesis and bioactivity study of flavanoids (2) Late-stage functionalization of small bioactive molecules (3) Structural modification of natural products in Chinese Medicine <p>Prof. Zhaoxiang BIAN (https://scm.hkbu.edu.hk/en/expertise/detail/expertise_37.htm) will serve as the Co-I.</p>	https://chem.hkbu.edu.hk/junwang	Organic Chemistry, Medicinal Chemistry.
8	Prof. Ka Leung WONG	Science	Chemistry	<p>Prof. WONG has been devoted to developing potential multi-functional metal-based luminescent molecular systems/nanomaterials for biological applications with the use of lanthanides and peptides. His research directions are:</p> <ol style="list-style-type: none"> (1) Ending the Epstein-Barr virus (EBV) associated cancer diseases (2) Fundamental and predetermined spectroscopy studies of luminescent (3) Photodynamic therapy (PDT) (4) Multi-modal prodrug (5) Identification of biomarkers and develop their early diagnosis kits for prostate cancer 	https://scholar.google.com/citations?user=MMVjnOcAAAA&hl=en	With strong academic background, demonstrating research ability/potential, interested in research/future research career and self-motivated/lifelong learning.

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9	Prof. Julien S BAKER	Social Science	Sport, Physical Education and Health	<p>Prof. BAKER's research area includes the biochemistry of exercise, particularly hormonal control, and immune function. He has recently been invited onto a large grant application with Exeter and Cardiff University. The aim of the project is to investigate bone mineral density, sarcopenia and related biochemistry related to the incidence of falls in elderly populations. Part of the study will investigate decreases in estragon and testosterone in female and male populations and links with a decline in cognitive ability and bone mass. Knowledge transfer is an important part of my research portfolio, and all information gathered here will be disseminated to all relevant individuals and governing bodies.</p> <p>Dr Gemma GAO (https://speh.hkbu.edu.hk/en/people/academic_and_teaching_staff_detail/136/) will serve as the Co-I.</p>	<p>https://speh.hkbu.edu.hk/en/people/academic_and_teaching_staff_detail/1/</p> <p>https://scholar.google.co.uk/citations?user=4Oo+dSUAAAA&hl=en</p>	Health, biochemistry, exercise science related subjects.
10	Dr Yanping DUAN	Social Science	Sport, Physical Education and Health	<p>Dr DUAN has diverse research interests in the fields of behavior and health promotion. Here main research focuses on (1) the theory- and evidence-based health behavior (physical activity, diet) intervention; (2) environmental, psycho-social and socio-cultural aspects of health behaviors (physical activity, diet) and precautionary behaviors (Influenza, COVID-19).</p>	<p>https://speh.hkbu.edu.hk/en/people/academic_and_teaching_staff_detail/145/</p>	Health promotion by means of physical activity and nutrition, applied computer science on web/app design.
11	Dr Yajun Wendy HUANG	Social Science	Sport, Physical Education and Health	<p>Dr HUANG's research areas are physical activity and sedentary behaviours for preschool-aged and school-aged children, with a focus on understanding the determinants of these behaviours and how behavioural patterns affect health outcomes: She is also interested in investigation of interrelationships between movement behaviours (including physical activity, sedentary behaviour and sleep) occurring in a 24-hour period and the promotion of 24-hour movement behaviours.</p> <p>Prof. Julien BAKER (https://speh.hkbu.edu.hk/en/people/academic_and_teaching_staff_detail/1/) will serve as the Co-I.</p>	<p>https://speh.hkbu.edu.hk/en/people/academic_and_teaching_staff_detail/119/</p> <p>https://www.researchgate.net/profile/Wendy_Yajun_Huang</p> <p>https://orcid.org/0000-0003-3995-1121</p>	Health or exercise science related subjects.