











Joint Symposium on Brain and Vision Health

11 May 2023 (Thursday), HKIAS Lecture Theatre, LG/F, Hong Kong Institute for Advanced Study, CityU Zoom Meeting (Meeting ID: 925 8775 1687; Password: 123456)















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14:00 – 14:10	Opening Remarks	Prof. Mengsu Michael Yang (CityU) 杨梦甦教授
Session Chair: Dr. Wenjun Xiong (CityU) 熊文君博士		
14:10 – 14:15	Introduction of Prof. Kwok-Fai So	Prof. Ying Li (CityU) 李婴教授
14:15 – 15:00	Regeneration of optic nerve in mammals	Prof. Kwok-Fai SO (JNU) 苏国辉教授
15:00 – 15:10	Q&A	
15:10 – 15:35	Probe into the non-image-forming functions of light	Prof. Chaoran Ren (JNU) 任超然博士
15:35 – 15:40	Q&A	
15:40 – 16:05	Gene therapy for retinal degenerative diseases	Dr. Wenjun Xiong (CityU) 熊文君博士
16:05 – 16:10	Q&A	
16:10 – 16:35	Treatment of photoreceptor degeneration	Prof. Ying Xu (JNU) 徐颖博士
16:35 – 16:50	Q&A + Break	
Session Chair: Dr. Ying Xu (JNU) 徐颖博士		
16:50 – 17:15	Exercise, exerkines and mental health	Prof. Li Zhang (JNU) 张力博士
17:15 – 17:20	Q&A	
17:20 – 17:45	Adult neural stem cells for brain repair	Dr. Jin Young Kim (CityU) 金眞英博士
17:45 – 17:50	Q&A	
17:50 – 18:15	Targeting connexin hemichannels and neuro- inflammation for treatment of neuropsychiatric disorders	Dr. Geoffrey Lau (CityU) 劉俊宇博士
18:15 – 18:20	Q&A	
18:20 – 18:25	Closing Remarks	Prof. Yu Huang (CityU) 黄聿教授

Co-organized by

Department of Biomedical Sciences, City University of Hong Kong Guangdong-HongKong-Macau Institute of CNS Regeneration (GHMICR), Jinan University Department of Neuroscience, City University of Hong Kong

Supported by



Professor SO, Kwok-Fai

Academician of Chinese Academy of Sciences
Director of GHM Institute of CNS Regeneration,
Jinan University

Emeritus Professor, Chair of Anatomy in the State Key Laboratory of Brain and Cognitive Sciences in the Faculty of Social Sciences and the Dept of Ophthalmology, The University of Hong Kong

Topic: Regeneration of optic nerve in mammals

Prof. So is the Director of GHM Institute of CNS Regeneration at Jinan University, Guangzhou, China; Emeritus Professor, Chair of Anatomy in the State Key Laboratory of Brain and Cognitive Sciences in the Faculty of Social Sciences and the Dept of Ophthalmology, The University of Hong Kong; the member of the Chinese Academy of Sciences, Co-Chairman of the Board of Director of the ChinaSCINet, and Editor-in-Chief of Neural Regeneration Research journal. He received PhD degree from MIT. He is one of the pioneers in the field of axonal regeneration in visual system. He was the first to show lengthy regeneration of retinal ganglion cells in adult mammals with peripheral nerve graft. He is currently using multiple approaches to promote axonal regeneration after injury in the optic nerve and spinal cord. His team identifies neuroprotective and regenerative factors including: exercise, wolfberry, trophic factors, peptide nanofiber scaffold, and environmental manipulation. He got a series awards as the following: 1995, the Natural Science Award of the National Natural Science Foundation of China; 1999, Member of the Chinese Academy of Sciences; 2015, FNAI, US National Academy of Inventors, Fellow; 2017, member of DABI (Dana Alliance for Brain Initiatives); 2019, Fellow of the Chinese Academy of Medical Science; 2021, member of College of Fellows, American Institute for Medical and Biological Engineering (AIMBE FELLOW); 2021 & 2022, the world top 2% scientists. He is the author and co-author of over 500+ publications and co-inventors of 46 patents.



Professor Ren, Chaoran
Professor
GHM Institute of CNS Regeneration
Jinan University

Topic: Probe into the non-image-forming functions of light

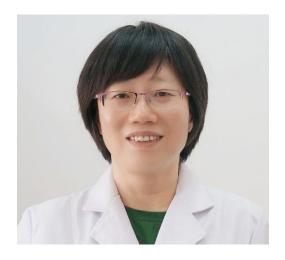
Light is a powerful modulator of non-image-forming functions such as mood and cognition. However, the neural mechanisms underlying the effects of light on non-image-forming functions remain elusive. Prof. Ren endeavors to elucidate the circuit mechanisms of the non-image-forming functions of light. In the past five years, he has made a series of achievements in this field, including: 1) Unraveled neural circuits mediating the antidepressive effects of bright light treatment, which would provide mechanistic insights into the antidepressive effects of light therapy. 2) Unraveled neural circuits underlying the spatial memory-promoting effects of bright light treatment, which improves the understanding of the mechanisms underlying the effects of light on cognition. 3) Proposed circuit mechanisms for the antinociceptive effects of bright light treatment, which would provide the theoretical basis for the application of light therapy in pain-related diseases. The above findings gradually decipher the neuronal mechanisms of non-image-forming functions of light. Those results, with Prof. Ren being the corresponding author, were published in high-profile journals including *Neuron* (2019, 2021, 2022), *Science Advances* (2022), *Nature Communications* (2017) and *Advanced Science* (2020).



Dr. Xiong, Wenjun
Associate Professor
Department of Biomedical Sciences
City University of Hong Kong

Title: Gene therapy for retinal degenerative diseases

Dr. Wenjun Xiong is currently an associate professor in the Department of Biomedical Sciences, City University of Hong Kong. She has a long-standing interest in eye research since the start of her PhD study in the University of Chicago. During her postdoctoral training in Prof. Constance Cepko's lab at Harvard Medical School, she focused on retinal diseases and treatment development. Since starting at CityU, her research team studied the mechanism of photoreceptor degeneration in retinitis pigmentosa, an inherited retinal degenerative disease. The ultimate goal of her lab is to develop gene/mutation-independent gene therapies that can slow down or halt the degeneration of the photoreceptors to save the vision of the patients with retinitis pigmentosa and other retinal degenerative diseases.



Professor Xu, Ying
Professor
GHM Institute of CNS Regeneration
Jinan University

Topic: Treatment of photoreceptor degeneration

Dr. Ying Xu is currently a full professor in GHM Institute of CNS Regeneration, Jinan University. She received her Batcher's degree from Peking University in 1997 and Ph.D degree from Chinese Academy of Sciences in 2002. Then she spent over 8 years working in University of Pennsylvania in US as a postdoc and research associate, before she set up her own lab in Jinan University in 2010. Her research interests focuses on the treatment of retinal degeneration using animal models of rodents and non-human primate, by various strategies, including traditional Chinese medicine, small molecule, gene therapy, physical therapy, stem cell therapy etc. She has published over 30 research articles in peer-reviewed journals, including Stem Cell Research & Therapy, Investigative Ophthalmology & Visual Science, Journal of Neurochemistry, Neuropharmacology etc. Besides funding support from the government, she also got funding from pharmaceutical companies and established close collaborations with labs in Hong Kong University and Zhongshan Ophthalmic Center.



Professor Zhang, Li
Professor
GHM Institute of CNS Regeneration
Jinan University

Topic: Exercise, exerkines and mental health

Dr. Li Zhang is currently a full professor in Guangdong-Hong Kong-Macau Institute of CNS Regeneration, Jinan University. He received both BSc and PhD degrees from the University of Hong Kong, and joined Jinan University since 2014. His major interest focuses on the peripheral-central mechanism of exercise in improving brain functions. In recent years, his work mainly investigate the role of peripheral exerkines in improving synaptic plasticity and brain functions. He has published more than 20 research articles in high-profile journals including Science Advances, Molecular Psychiatry, Cell Reports, Advance Science, National Science Review and Current Biology. He has received research fundings including the "China Brain Project" and National Natural Science Foundation of China.



Dr. Kim, Jin Young
Associate Professor
Department of Biomedical Sciences
City University of Hong Kong

Topic: Adult neural stem cells for brain repair

Dr. KIM's group focuses on molecular circadian clocks in the central nervous system—how circadian clocks respond to microenvironmental changes in brain pathologies and are involved in repairs. Starting from her recent work published in *Cell Reports*—circadian clock-mediated communications between lesions and adult neural stem cells to enhance brain repair, her group studies how circadian clocks in neural cells are orchestrated in various brain pathological conditions to understand their roles. Dr. KIM joined the City University of Hong Kong as an Assistant Professor in 2015 and was promoted to Associate Professor in 2021. She received her B.S. and M.S. degrees from SungKyunKwant University in South Korea. Then, she moved to USA for Ph.D. study and Postdoctoral training. She received her Ph.D. from Rutgers University in 2009 and pursued postdoctoral training at Harvard Medical School. After joining CityU, Dr. KIM's laboratory is supported by funding from the Hong Kong RGC, Shenzhen Municipality, and Tung Biomedical Sciences Centre.



Dr. Lau, Chun Yue Geoffrey
Associate Professor
Department of Neuroscience
City University of Hong Kong

Title: Targeting connexin hemichannels and neuroinflammation for treatment of neuropsychiatric disorders

Dr Lau's research focuses on the neuroimmune mechanisms of plasticity in learning and neuropsychiatric disorders. His recent work on the identification of a small molecule inhibitor of connexin hemichannels for treating epilepsy led to a publication in PNAS and coverage by CityU press release and multiple news outlets. Dr. Lau joined CityU as an Assistant Professor in 2016 and will become an Associate Professor in July 2023. He received his BTech degree (Biomedical Science) with First Class Honours from the University of Auckland in 2001. He received his PhD from the Albert Einstein College of Medicine in New York in 2007 under the guidance of Suzanne Zukin and Michael Bennett. At Harvard University, Dr. Lau pursued postdoctoral work with Venkatesh Murthy. Throughout his career, he has received multiple awards including a NARSAD Young Investigator Award, Distinction in Teaching from Harvard University, and a Scholarship for the Neural Systems and Behavior Course at Marine Biological Laboratory (Woods Hole). His research work has garnered more than 2300 citations (Google Scholar). Dr. Lau's laboratory is supported by funding from the Hong Kong RGC, Hong Kong ITC and Shenzhen Municipality. He is currently the Program Leader for the new MSc in Neuroscience program at CityU, and an Associate Editor at Bio-protocol.