#### The Chinese University of Hong Kong Department of Psychiatry Schedule for Oct, 2024

<u>Date</u> Oct3	<u>Time</u> 14:30-15:30	Activity Research Seminar * Family-based association study in idiopathic rapid eye movement sleep behavior disorder: a two-phase study using whole exome sequencing Registration: https://bit.ly/3AUQqcN			<u>Speaker(</u> Ms. Laur Supervis WING Co-super HUANC	<u>s)</u> cen LI or: Prof. Yun Kwok rvisor: Dr. Bei G	
Oct10	14:30-16:00	Psychotherapy Case Conference (MUL) # Balint Group Supervision			Trainees Moderat	Trainees Moderator: Dr. Irene KAM	
	16:00-17:00	Psychotherapy Supervision (MUL) #					
Oct17	14:30-16:30	Quality Assurance Meeting (SH)#/(TPH)#					
Oct24	14:30-16:00	Academic Lecture (MUL) * Gut microbiota: a missing link in REM sleep behavior disorder and synucleinopathy? Registration: https://bit.ly/4golMJ1			<u>Dr. Bei H</u> Research Departm The Chin Hong Ko	<u>Dr. Bei HUANG</u> Research Assistant Professor, Department of Psychiatry, The Chinese University of Hong Kong	
	16:00-17:00	Clinical Case Conference *#			Dr Steve	Dr Steven Chau	
Oct31	15:30-17:00	Academic Lecture (MUL) * Personalized, Circuit-Targeted Treatment for Major Depressive Disorder Registration: https://bit.ly/4d7OI5r			<u>Prof. An</u> Ray and Distingu Professo Psychiate Universi Francisco	<u>Prof. Andrew KRYSTAL</u> Ray and Dagmar Dolby Distinguished Professor Psychiatry and Neurology University of California San Francisco	
Venue:	*Live video #Closed meeting	@Non-CME Event	MUL Seminar Room, Multi-centre, Tai Po Hospital, Tai Po, N.T.	TPH Conference Room 1 G/F, Wing D Tai Po Hospital Tai Po, N.T.	SH Dining Room Ward 7AB Dept. of Psychiatry 7/F, Shatin Hospital	1AL Rm. 1005, Dining Room Ward 1AL, 1/F Tai Po Hospital Tai Po, N.T.	

#### Please contact 2607-6024 two days before hand to arrange presentation equipment.

Shatin, N.T.

http://www.psychiatry.cuhk.edu.hk



# Research Seminar

Date: 3 Oct 2024 (THU) Time: 14:30 - 15:30 Venue: Zoom

## **Register Now**



**Ms. Lauren Ll** Supervisor: Prof. YK WING Co-supervisor: Dr.Joanne HUANG

Topic: Family-based association study in idiopathic rapid eye movement sleep behavior disorder: a two-phase study using whole exome sequencing

#### Abstract:

Idiopathic REM sleep behavior disorder (iRBD) is known as the prodromal stage of alpha synucleinopathy. More than 80% of patients with iRBD are likely to convert to Parkinson's disease (PD), dementia with Lewy bodies (DLB), or, in rare instances, multiple system atrophy within an average 15 years. The etiologies of iRBD remain unclear, albeit previous studies mainly focusing on environmental factors have not yielded robust evidence. Our recent work found that first degree relatives of iRBD patients have higher levels of RBD features and higher risk of prodromal PD, indicating a potential genetic basis. Indeed, genetic studies of iRBD have been performed in recent years. These studies are mostly based on case-control design and use candidate gene approach by testing the risk genetic mutations of alpha synucleinopathy in This provided the insight that genetic factors, like the mutation of GBA, SNCA, iRBD patients. and TMEM175, may contribute to the development of iRBD, but also revealed that genetic background of iRBD only partially overlaps with that of PD and DLB. For example, pathogenic LRRK2 mutations involved in PD are not observed in iRBD patients. These findings highlight that the importance of employing comprehensive methods like whole exome sequencing to better understand genetic background of iRBD and its relationship to progression into alpha-As a classical method, the unrelated case-control design is easily synucleinopathies. influenced by population stratification and confounders that requires large sample sizes to maintain statistical power. Family-based genetic studies recruit cases and controls within the same family, which is inherently robust to this kind of bias, and help to understand the inheritance patten directly. Additionally, most genetic studies have focused on populations of European ancestry, underscoring the need for research involving Asian populations. Therefore, we would conduct a family-based two-phase study to explore the genetic basis of iRBD using our Hong Kong iRBD family cohort. In the discovery phase, whole exome sequencing will be performed in the RBD families including complex families with more than one individual diagnosed of iRBD or with RBD features to find the potential causative genes. Then, these genes will be further confirmed by Sanger sequencing. In the validation phase, MassARRAY genotyping will be performed to further validate the risk genes in an independent case-control study. Overall, this study could deepen the current understanding of iRBD's etiology and its progression to alpha-synucleinopathy, enhance disease management and potential preventive strategies.



Registration is required. For enquiries, please contact pci-event-app@cuhk.edu.hk or 26076024. Please display the registration name for joining the Zoom lecture.



# **ACADEMIC LECTURE**



## **Dr. Bei HUANG**

Research Assistant Professor Department of Psychiatry The Chinese University of Hong Kong

### 💼 24 OCT2024 (THU)

🕒 14:30 - 16:00

Seminar Room, Multicentre, Tai Po Hospital & Zoom

### Topic: Gut microbiota: a missing link in REM sleep behavior disorder and synucleinopathy?

#### Abstract:

Isolated/idiopathic REM sleep behavior disorder (RBD) is the most specific prodrome that will convert into different phenotypes of alpha-synucleinopathies, including Parkinson's disease (PD). Growing evidence suggests that the gut microbiota-brain axis plays an important role in the pathogenesis of PD; therefore, exploring the gut microbiome during the prodromal and early stages of disease (e.g., patients with RBD) will help provide insights into the possible mechanisms of gut dysbiosis and synucleinopathy neurodegeneration, as well as assist in the identification of possible targets for early prevention and intervention of PD.



However, as a vital organ of the human body, the gut microbiome is a large, complex and mysterious community in which its composition and functionality are closely related to many extrinsic and intrinsic factors of the host (e.g., lifestyle and physiological variables). Despite the discovery of gut dysbiosis, it remains difficult to truly explore disease-specific alterations and precise targets for intervention. In this seminar, I will introduce the history of RBD and gut microbiota research, as well as our explorations and thoughts on the future directions of microbial research.

#### <u>Biography:</u>

Dr. Bei Huang is a research assistant professor of the Department of Psychiatry at The Chinese University of Hong Kong. She graduated with honours from Suzhou Medical College, Soochow University in 2014 and completed her postgraduate training in Neurology from the Naval Medical University, Shanghai, in 2017. Before joining CUHK psychiatry in April 2021 as postdoctoral fellow, Dr. Huang has obtained her PhD degree in Medical Sciences from the Faculty of Medicine CUHK in Jan 2021.

Dr. Huang have over 8 years of research experience covering the epidemiology, pathophysiology, and diagnosis of neurodegenerative diseases and sleep disorders especially REM sleep behavior disorder (RBD). Her current research interests are primarily focus on understanding the gut-brain hypothesis of Parkinson's disease pathogenesis, from gut microbiota and metabolomics, intestinal disorders, host-gut microbiota interactions, to inflammatory pathways, targeting a wide spectrum of patients at early and prodromal stages of Parkinson's disease, including RBD and their first-degree relatives. Also, Dr. Huang is actively working on the development of novel gut-based diagnostic tools and therapeutics for the early identification and prevention of Parkinson's disease and other neurodegenerative diseases. Additionally, as a sleep specialist, Dr. Huang has a broad interest in genetic risk factors for RBD as well as polysomnography related analysis, including the characterization of nocturnal behaviors in patients with RBD and prodromal RBD. She has published more than 20 research articles in prestigious journals, including Nature Communications, Annals of Neurology, and Journal of Neurology, Neurosurgery and Psychiatry.



Registration is required. For enquiries, please contact pci-event-app@cuhk.edu.hk or 26076024. Please display the registration name for joining the Zoom lecture.

### **REGISTER NOW**

# ACADEMIC LECTURE





# **Prof. Andrew KRYSTAL**

Ray and Dagmar Dolby Distinguished Professor Psychiatry and Neurology University of California San Francisco

31 OCT 2024 (THU)

15:30 - 16:30



ΛL

Seminar Room, Multicentre, Tai Po Hospital & Zoom

Topic: Personalized, Circuit-Targeted Treatment for

## **Major Depressive Disorder**

# **REGISTER NOW**



#### Abstract:

Available data indicate that there are significant limitations in our ability to effectively treat major depressive disorder (MDD). This talk addresses two contributing factors: 1) shortcomings in our treatment development methodology that precludes the development of novel treatments that substantively improve our capacity to treat MDD; and 2) our inability to meaningfully personalize treatment so that individuals receive a treatment from among the many antidepressant interventions available that is likely to be therapeutic. The case is made for the need to carry out new treatment development 4 in a scientific framework that addresses the need for personalization and where there is a hypothesis about how engaging a prospective treatment target will improve MDD symptoms by correcting dysfunction in a specific neural circuit. New data are presented that illustrate and support the utility and need for this approach and pave the way towards the future ideal of psychiatric care.

#### **Biography:**

Professor Andrew Krystal is the Ray and Dagmar Dolby Distinguished Professor of Psychiatry and Neurology at the University of California San Francisco where he is also the Director of the Dolby Center for Mood Disorders, the Clinical and Translational Sleep Research Laboratory, and the Interventional Psychiatry Program. The primary focus of his research is the development of biomarkers for mood disorders and sleep disorders and their application in developing novel personalized treatments for these conditions.