*for favour of posting*
*dated on: 2025/10/02*

# The Chinese University of Hong Kong
# Department of Psychiatry
# Schedule for October, 2025

| Date | Time | Activity | Speaker(s) |
|---|---|---|---|
| Oct2 | 14:30-15:30 | Research Seminar *<br>*Bright light therapy for adolescents with depression and eveningness – a randomized, placebo-controlled, assessor-blinded study* | Ms. Xingle GAO<br>Supervisor: Dr. Joey CHAN<br>Co-supervisor: Prof. YK WING |
| | 15:30-16:30 | Research Seminar *<br>*Validation of a digital screening tool for identification of prodromal high-risk subjects of Parkinson's disease in Hong Kong community* | Ms. Julie LI<br>Supervisor: Prof. YK WING<br>Co-supervisor: Dr. Joanne HUANG |
| | 16:30-17:30 | Research Seminar *<br>*An automated home-based screening system for screening rapid eye movement sleep behavior disorder*<br><br>Registration: http://bit.ly/4mcDhOh | Mr. Claude YE<br>Supervisor: Prof. YK WING<br>Co-supervisor: Dr. Joanne HUANG |
| Oct9 | 14:30-16:00 | Psychotherapy Case Conference (MUL)*#<br>*Existential Therapy* | Dr Anne CHOY |
| | 16:00-17:00 | Psychotherapy Supervision (MUL)*# | |
| Oct16 | 14:30-16:30 | Quality Assurance Meeting (SH)# / (TPH)# | |
| Oct23 | 14:30-16:00 | Academic Lecture (MUL)*<br>*Understanding Mild Cognitive Impairment and Mild Behavioral Impairment in Alzheimer's Disease and Related Dementia*<br><br>Registration: https://bit.ly/4nVtq0K | **Prof. Mary SANO**<br>Professor of Psychiatry, Director of the Alzheimer's Disease Research Center, Icahn School of Medicine at Mount Sinai, USA |
| | 16:00-17:00 | Scientific Workshop (MUL)#<br>*Machine learning in data analysis*<br>Registration: http://bit.ly/48dZloj | Dr. Tim LI |
| Oct30 | 14:30-15:30 | Scientific Workshop (MUL)#<br>*Use cases of machine learning algorithms*<br>Registration: http://bit.ly/46hwJb9 | Dr. Leo FAN, Dr. Petrina LAU |

Venue: *Live video #Closed meeting @Non-CME Event

| MUL | TPH | SH | 1AL |
|---|---|---|---|
| Seminar Room, Multi-centre, Tai Po Hospital, Tai Po, N.T. | Conference Room 1 G/F, Wing D Tai Po Hospital Tai Po, N.T. | Dining Room Ward 7AB Dept. of Psychiatry 7/F, Shatin Hospital Shatin, N.T. | Rm. 1005, Dining Room Ward 1AL, 1/F Tai Po Hospital Tai Po, N.T. |

**Please contact 2607-6025 two days before hand to arrange presentation equipment.**

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

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The Chinese University of Hong Kong

香港中文大學醫學院
Faculty of Medicine
The Chinese University of Hong Kong

# Research Seminar

**Date: 2 OCT 2025 (THU)**

**Time: 16:30 - 17:30**

**Venue: Zoom**

Register Now



**Mr. Claude YE**
Supervisor: Prof. YK WING
Co-supervisor: Dr. Joanne HUANG

**Topic: An automated home-based screening system for screening rapid eye movement sleep behavior disorder**

**Abstract:**

Rapid eye movement (REM) sleep behavior disorder (RBD) is a parasomnia characterized by recurrent dream enactment behaviors (DEBs) and REM sleep without atonia (RSWA). Isolated RBD (iRBD) in middle-aged and elderly is regarded as a prodromal syndrome of alpha-synucleinopathy neurodegeneration. Early detection of iRBD benefits in prevention and intervention for neurodegeneration, and minimizing sleep-related injuries (SRI) caused by DEBs. However, currently, clinical diagnosis of RBD still relies on in-laboratory video-polysomnogram (vPSG) , with an average waiting time in Hong Kong ranging from 6 to 24 months. Current RBD screening at home setting mainly includes questionnaire, actigraphy, gait analysis, all of which are general or indirect measurements and cannot focus on real REM sleep stage to evaluate the sleep related movements during REM sleep. With the availability of ambulatory home-PSG measurement, emerging studies have supported REM sleep identification, thereby, the validity of screening and diagnosis of various sleep disorders, including RBD, at home setting. In corroborating a diagnosis of RBD, the use of vPSG will help to document sleep related movement during REM sleep. However, the detailed manual analysis of vPSG recording is labor-intensive. There has been increasing number of studies exploring the automated video analysis method in distinguishing RBD from non-RBD controls, albeit all of them were conducted in laboratory settings.

A preliminary study by our group explored the automated video analysis for capturing RBD features at the home setting. The results showed that, assisted by manual scored REM sleep timestamp based on home-PSG measurements (PSG level II, e.g. Electroencephalography (EEG), Electrooculography (EOG), and Electromyography (EMG)), the automated video analysis can achieve promising performance with accuracy of 0.91 and F1-score of 0.91 for differentiating RBD patients from controls, validating the feasibility of automated video analysis method at home settings.

In this study, we aim to automate the REM sleep and related movement scoring to complete a fully automated analysis workflow for home setting (i.e., automated for both REM sleep and REM-sleep-video-based movements analysis (by infrared home cameras synchronized with home-PSG/wearable devices, supporting night vision to capture nocturnal movements)). We expect to be able to handle two different levels of home-based video assessment: (i) With home-PSG , (ii) with only wearable device, as there is considerable technical demand for home-PSG devices, thus other more convenient devices are explored. For home-video-PSG scenario, we shall develop an automated workflow using open-source package (e.g., YASA, U-Sleep) for identifying REM sleep from EEG/EOG/EMG, adapting to suit RBD patients' REM sleep; for home-video-wearable scenario, we shall investigate the REM sleep identification methods based on economical wearable devices (i.e., photoplethysmography (PPG) clip that has been validated by existing literatures, but not yet for RBD patients). Deep learning model (e.g., CNN, LSTM) will be used to extract the relationship between PPG signals and different sleep stage (Wake-REM-NREM). Additionally, the video analysis workflow will be upgraded to be privacy-friendly: blurred videos rather than original clear videos (containing details of face, home environment and other privacy issues) shall be tested for the feasibility of identifying sleep related movements in the presence of a privacy-friendly manner.

By completing the full-automation home-based RBD screening tools, this work may enable a more accessible and efficient RBD screening workflow. For example, home-video-wearable scenario suits for broader/first-phase community screening (where cost and convenience are prioritized), while home-video-PSG scenario for high-risk patients (e.g., with frequent DEBs/SRIs) or those screening positive from community screening, for more precise diagnoses and timely clinical management.

Registration is required. For enquiries, please contact pci-event-app@cuhk.edu.hk or 26076025.
Please display the registration name for joining the Zoom lecture.

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# Research Seminar

**Date: 2 OCT 2025 (THU)**

**Time: 15:30 - 16:30**

**Venue: Zoom**

Register Now




**Ms. Julie LI**

Supervisor: Prof. YK WING

Co-supervisor: Dr. Joanne HUANG


**Topic: Validation of a digital screening tool for identification of prodromal high-risk subjects of Parkinson's disease in Hong Kong community**


**Abstract:**

Parkinson's disease (PD), the second most common neurodegenerative disorder, affects 2–3% of the population aged ≥65 years. Critically, its clinical diagnosis is preceded by a prolonged prodromal phase marked by irreversible pathology. This prodromal phase offers a critical window for understanding the possible etiologies and developing corresponding preventive strategies, as well as identifying diverse risk factors and prodromal markers. However, the prodromal stage is frequently under-recognized and underdiagnosed. Community-based screening is therefore imperative to capture a broader spectrum of at-risk cases and pave the way for prevention and early intervention.

Current prodromal PD screening employs either single markers or combined strategies. Single markers, such as hyposmia and isolated/idiopathic REM sleep behavior disorder (iRBD), demonstrate relatively high specificity and sensitivity, but suffer from low positive predictive value (PPV) due to their low prevalence of RBD, leading to high false-positive rates. Alternatively, integrated approaches—such as the Movement Disorder Society (MDS) research criteria—leverage statistical models (e.g., combining likelihood ratios [LR]) to synergistically enhance the screening strategy. These models strategically combine highly specific markers (e.g., v-PSG confirmed RBD) and more prevalent markers with lower LR+ to ensure high population sensitivity and representativeness, thereby optimizing screening process as a whole. However, these require complex, costly, and standardized assessments that pose challenges for large-scale implementation. Only a limited number of community-based high-risk cohorts exist, which face notable limitations, including limited sample sizes, underrepresentation of certain populations (e.g., rarely in Asian populations), and insufficient investigation into the etiology and associated risk factors of PD (e.g., physical activity, habitual diet, stress). Although multi-phase designs (e.g., initial screening followed by in-depth evaluation) offer a promising framework to enhance feasibility and sensitivity, they still face considerable hurdles. These include the requirement for extremely large initial samples, low response rates in phase-I (e.g., only 53.2% in PARS study), and lack of validated phase-I instruments. Thus, more systematic and standardized studies—focusing on developing validated screening tools, optimizing recruitment strategies to boost response rates (e.g., mobile apps, which preliminary data link to higher response rates ~80%), and establishing harmonized protocols for multi-phase screening—are needed to enhance prodromal PD screening accuracy.

This two-phase community-based study aims to validate a smartphone app-based screening tool for identifying individuals at risk of prodromal PD among Hong Kong Chinese adults aged 50–65. The study seeks to develop a novel predictive algorithm, investigate associations between neurodegenerative risk and lifestyle, psychological, and environmental factors, and estimate the preliminary prevalence of prodromal PD. Phase 1 will involve the recruitment of 1,700 participants via an enhanced mobile application ("Parkinson Plus"), which collects data via in-app questionnaires assessing both established MDS-defined prodromal markers and novel psychosocial risk factors (e.g., psychological stress and dietary patterns). An algorithm will generate a probability score, based on MDS criteria, classifying individuals into low (<30%) and moderate or high-risk groups (≥30%) for prodromal PD. Participants with moderate or high-risk prodromal PD (approximately n=132), along with age- and sex-matched low-risk subjects (n=132), will proceed to Phase 2, involving in-person assessments such as video-polysomnography (v-PSG), neurocognitive testing, and autonomic function evaluations. Machine learning models will be employed to identify key predictive features for distinguishing higher- and lower-risk groups, as well as improving the risk classification of app-based assessment. This study will offer a scalable, community-based approach to the early detection of individuals at high risk for PD, and lay the foundation for future neuroprotective interventions, ultimately reducing the healthcare burden of PD in aging populations.


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# Research Seminar

**Date: 2 OCT 2025 (THU)**

**Time: 14:30 - 15:30**

**Venue: Zoom**

Register Now




**Ms. Xingle GAO**

Supervisor: Dr. Joey CHAN

Co-supervisor: Prof. YK WING


**Topic: Bright light therapy for adolescents with depression and eveningness – a randomized, placebo-controlled, assessor-blinded study**


**Abstract:**

Adolescence is a critical life stage marked by rapid changes across various domains. It is during this period that more than half of all mental disorders emerge, and it also represents the peak age of onset for depression. The rising prevalence of adolescent depression contributes to a significant burden of functional impairment and suicide risk, making it a major global public health concern.

Circadian rhythm disruption and its connection to depression have garnered increasing research interest. A key form of this disruption is eveningness, a biological delay in sleep-wake and activity patterns. Although a tendency toward eveningness is developmentally common in adolescents, emerging evidence links it to depression and other mental disorders, especially in adolescents and older adults. Thus, circadian regulation represents a potentially promising intervention for depression in adolescents.

Bright light therapy (BLT) has the potential to reduce eveningness and stabilize circadian rhythm by offering a potent zeitgeber ("time-giver"). While BLT has demonstrated efficacy in treating both seasonal and non-seasonal depression in adults, evidence in adolescents remains limited and heterogeneous due to variations in treatment protocols, populations, and study designs.

This randomized controlled trial evaluates BLT in adolescents with depression and eveningness, using comprehensive measures including objective and subjective sleep assessments, circadian phase markers, light sensitivity indicators, and questionnaires on mood, sleep, quality of life, and cognition. The findings are expected to provide valuable insights into the underlying mechanisms and treatment approaches for this population.


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# Academic Lecture

## Understanding Mild Cognitive Impairment and Mild Behavioral Impairment in Alzheimer's Disease and Related Dementia




**Professor Mary SANO**
**Professor of Psychiatry,**
**Director of the Alzheimer's Disease Research Center,**
**Icahn School of Medicine at Mount Sinai,**
**USA**




**23 October 2025 (Thu)**
**14:30 - 16:00**

**Seminar Room, Multicentre, Tai Po Hospital & Zoom**


**Moderator: Prof. Linda Lam**
**Professor**
**Department of Psychiatry**
**Faculty of Medicine**
**The Chinese University of Hong Kong**



## Abstract:

Well-characterized Mild Cognitive Impairment (MCI) is a predictor of dementia, and with the availability of blood biomarkers, we can detect Alzheimer's disease pathology with high reliability. There is growing awareness that new-onset behavioral impairment—now known as Mild Behavioral Impairment (MBI)—occurring alone or with MCI, can also predict dementia. Several challenges occur with these new diagnostic probes, including the difficulty of predicting and diagnosing when biomarkers are indeterminate. Just as the cognitive profile may be informative of the type of dementia, the behavioral and psychiatric patterns may also predict the etiology of dementia, as well as the trajectory of decline.

This presentation will discuss various features of MCI and MBI and their roles in predicting deterioration and functional decline. Clinician and caregiver perspectives on psychiatric symptoms may differ, challenging how we educate patients and family members about the importance of detecting these symptoms. We will review what is known about these features with different types of dementia. The presentation will also highlight how these distinctions can enhance the development of therapeutic interventions and outline directions for future research.


## Registration

Enquiries:
Ms. Cheryl Leung (cherylleung@cuhk.edu.hk)

# Biography of Professor Mary SANO




## Professor Mary SANO

**Professor of Psychiatry,**
**Director of the Alzheimer's Disease Research Center,**
**Icahn School of Medicine at Mount Sinai,**
**USA**


## Biography:

Mary Sano, PhD, is a Professor of Psychiatry at the Icahn School of Medicine at Mount Sinai, Director of the Alzheimer's Disease Research Center, and this year's recipient of the Lifetime Achievement Award from the Alzheimer's Association and the International Psychogeriatric Association (IPA) Service Achievement Award. As a neuropsychologist she has designed and conducted many clinical trials for the treatment and prevention of Alzheimer's disease and related dementias and cognitive decline in the elderly. She is the co-chair of the collaboration between IPA and Industry to define, detect, treat and manage Neuropsychiatric Symptoms in (NPS) in neurodegenerative cognitive disorders including dementia and Mild Cognitive Impairment. She is the lead author on the IPA criteria for agitation which has been used to achieve regulatory approval for treatments for agitation. Her work includes scholarly examination of the detection of apathy across different dementias and its impact on functional capacity and on the economic consequences of cognitive impairment in aging. She is the lead author of several hundred publications, has trained many young investigators and consulted for multiple pharmaceutical companies on design and interpretation of clinical trials.

# Scientific Workshop - Workshop series on Artificial Intelligence and Data Analysis

香港中文大學
The Chinese University of Hong Kong

Faculty of Medicine
The Chinese University of Hong Kong




## Dr. Tim LI

**Assistant Professor**
**Department of Psychiatry**
**Faculty of Medicine**
**The Chinese University of Hong Kong**


23 OCT 2025 (THU) & 16:00 - 17:00

Seminar Room, Multicentre, Tai Po Hospital

## Workshop 4: Machine learning in data analysis

Machine learning can be used for making predictions or decisions by leveraging training data. This workshop explores how to apply machine learning methods, covering essential techniques such as hyperparameter tuning, handling data imbalance during training, cross-validation, and model evaluation.





Sign Up

**The workshop series will include practical exercises in data analysis using R. Attendees are advised to bring their laptops with R and RStudio installed (https://posit.co/download/rstudio-desktop).**

**The workshops will cover a range of skill levels, starting from basic and progressing to advanced. It is recommended to attend all workshops for the full learning experience.**

For enquiries, please contact pci-event-app@cuhk.edu.hk or 26076025

# Scientific Workshop - Workshop series on Artificial Intelligence and Data Analysis

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CU Medicine
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Faculty of Medicine
The Chinese University of Hong Kong




**Dr. Leo FAN**
**Vice-Chancellor Assistant Professor**
**Department of Psychiatry**
**Faculty of Medicine**
**The Chinese University of Hong Kong**





**Dr. Petrina LAU**
**Research Assistant Professor**
**Department of Psychiatry**
**Faculty of Medicine**
**The Chinese University of Hong Kong**


30 OCT 2025 (THU) & 14:30 - 15:30

Seminar Room, Multicentre, Tai Po Hospital

## Workshop 5: Use cases of machine learning algorithms

From automated driving to the sorting of neural activity, the use of machine learning algorithms has become increasingly integrated into our daily lives and research activities. This workshop will present several common use cases in activity, video, and audio analysis to demonstrate how machine learning algorithms can be incorporated into clinical frameworks and research pipelines.





Sign Up

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