



# Department of Psychiatry *Research Seminar*

**DATE: 5 MAY 2020 (THU)**

**TIME: 14:30 - 16:30**

**VENUE: ZOOM LECTURE**



**Mr. Jie CHEN**

**Supervisor: Prof. YK WING**

**Co-supervisors: Drs. Steven CHAU, Rachel CHAN**

**Topic:**

**Integrating digital phenotyping in clinical assessment of depression**

**Abstract:**

Depression is the leading cause of health-related burden globally, affecting an estimated 300 million population. Not only the mortality (e.g., suicide) is increased, but the high comorbidity and disability that depression is associated have great impact on global health. The data from the Hong Kong Mental Morbidity Survey showed that less than 30% of people with common mental disorders had sought help from mental health services for the past year. This is probably due to patients' lack of awareness/knowledge, stigmatization, and lack of accessibility of services. To cope with this unmet need, digital assessment tools may enhance the identification/monitoring of depression both dynamically and ecologically, which is important for early intervention and prevention. Despite recent advances in sensors and computer science, there are still several unfilled gaps regarding the application of digital mental health in depression. First, the omega sign is a classical and easily identified facial expression in the forehead but is highly underexplored. During this COVID pandemic with nearly everyone wearing a mask, the value of studying this obvious facial sign in depression cannot be overstated as the mask will cover up the lower face. In particular, the clinical correlates of the omega sign was not well delineated. Secondly, there is a lack of locally developed and culturally valid digital mental health system that could integrate various multimodal digital biomarkers for the assessment and management of depression. In this seminar, I will share the findings about: 1) the prevalence of static omega sign and the frequency of dynamic omega sign among depressive patients and non-depressive population, as well as their correlation with clinical states/symptoms; 2) the applicability and feasibility of multimodal digital biomarkers for assessing mood states.



**Ms. Li ZHOU**

**Supervisor: Prof. YK WING**

**Co-supervisors: Drs. Steven CHAU, Yaping LIU**

**Topic:**

**Impulsivity across early stages of synucleinopathy: from high-risk relatives, REM sleep behavior disorder to early Parkinson's disease**

**Abstract:**

Human impulsivity is a complex construct, referring to actions that are rapid, premature, with unduly risk and often inappropriate to the situation. As a multidimensional concept, impulsivity not only affects our decisions and behaviors but is characterized as an important feature of neuropsychiatric disorders. Impulse control disorders, as the most severe end of impulsivity, have been reported in approximately 3.5-39% patients with Parkinson's disease (PD), especially related to the use of dopaminergic medications. Additionally, overwhelming evidence indicated that impulsivity is altered in patients with medicated PD. Interestingly, limited evidence showed that impulsivity already changed in drug naïve PD patients, which suggested that impulsivity may be independently related to PD itself instead of only linked to dopaminergic medications. However, it remains unclear whether impulsivity has been altered in prodromal stages of PD, namely isolated rapid eye movement sleep behavior disorder (iRBD). Thus, we aimed to investigate the level of impulsivity across early stages of synucleinopathy, including patients with early drug-naïve PD, iRBD, first-degree relatives of iRBD (iRBD-FDRs, high-risk group of iRBD), and normal controls, and to correlate impulsivity level with MDS-total likelihood ratio of prodromal PD (an integrated value of risk factors and biomarkers for PD), sleep related problems, and mood symptoms in this study.

**Registration is required. For enquiries, please contact 26076025**

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