



Department of Psychology  
The University of Hong Kong

香港大學心理學系

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## Departmental Seminar

### From Risk to Onset:

# The Neurodevelopmental Continuum of Bipolar Disorder



**Prof. LIN Kangguang, PhD, MD**

Department of Psychiatry and Behavioral Sciences  
The Chinese University of Hong Kong, Shenzhen

**4:00p.m. – 5:00p.m.**

Room 705, 7/F

The Jockey Club Tower

Centennial Campus

The University of Hong Kong

### Abstract

Bipolar disorder (BD) is traditionally diagnosed only after the emergence of full manic or hypomanic episodes, often resulting in a substantial delay between the onset of underlying pathophysiology and clinical recognition. Increasing evidence suggests that BD should instead be conceptualized as a neurodevelopmental continuum that begins years before the first diagnosable episode. This talk presents current findings from longitudinal high-risk offspring studies, highlighting how genetic vulnerability, neurobiological changes, and environmental factors interact across developmental stages. Using a clinical staging framework, the talk will describe how individuals progress from inherited risk (high-risk stage) to prodromal symptom expression (ultra-high-risk stage) prior to illness onset. Neuroimaging evidence will be reviewed showing stage-specific alterations in frontolimbic gray matter, cortical thinning trajectories, white-matter connectivity disruptions and changes in hippocampal functional connectivity that may predict disease conversion. In parallel, cognitive endophenotypes such as deficits in verbal learning, working memory, and planning will be discussed as early functional manifestations of vulnerability. Understanding the pathophysiological continuum of bipolar disorder may enable clinicians and researchers to shift from reactive treatment to proactive brain health protection.

### About the Speaker

Professor Lin is a psychiatrist and researcher with nearly two decades of clinical and academic experience in mental health, specializing in mood disorders. He holds a PhD in Psychology from the University of Hong Kong. His research integrates clinical translation, digital phenotyping, and health behavior science to improve early detection, identify predictive biomarkers, and develop non-pharmacological interventions for depression and bipolar disorder, particularly among high-risk populations. His work uses innovative approaches, including computational psychiatry and randomized controlled trials, to evaluate emerging treatment strategies such as transcranial direct current stimulation (tDCS), Lycium barbarum polysaccharide, and structured exercise programs. Through this translational research, Professor Lin aims to develop accessible, evidence-based interventions that complement conventional pharmacotherapy and support precision mental health care. Professor Lin has published more than 100 peer-reviewed articles in leading journals, including Nature Mental Health, American Journal of Psychiatry, Biological Psychiatry, JAMA Psychiatry, and Clinical Psychology Review. His research is supported by the Hong Kong Research Grants Council and the National Natural Science Foundation of China.

### Zoom Meeting (For participants who couldn't attend the Seminar in person)

<https://hku.zoom.us/j/92899065242?pwd=9mDIUNK4rJqHdqGPJbX2tbY5GXsZUy.1>

Meeting ID: 928 9906 5242 | Password: 258145

~ All are Welcome ~

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