



Sim Kang

Senior Consultant Psychiatrist, West Region, IMH
Assistant Chairman Medical Board (ACMB), Education
Program Director, NHG National Psychiatry Residency Program
Associate Professor, Yong Loo Lin School of Medicine, NUS and Lee
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Research Interests:

- Clinical Phenotyping of Major Psychiatric Disorders
- Neurobiology of Psychotic and Mood Disorders
- Health Professions Education

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Biography

Following completion of his postgraduate training in Psychiatry in Singapore, Dr Sim Kang spent a HMDP stint at MGH-McLean Hospital/Harvard Medical School in 2004. Since then, he continues his research interests into the clinical characterization and subtyping of major psychiatric disorders and better understanding of the underlying neurobiology of these conditions using tools including clinical and cognitive assessments, genetics and neuroimaging. His interests in health professions education include pedagogies, better understanding of learning environment, and its inter-relationship with learner wellness. He has published over 300 research papers, contributed several book chapters as well as served as a reviewer for many international, peer reviewed journals. He is a previous recipient of several research and educational awards including the NHG NUHS Doctor Award at the NHG Annual Scientific Congress in 2009, Singapore Clinician-Investigator Award (Gold) at the Singapore Health and Biomedical Congress in 2011, IMH Clinical Mentorship Award in 2011 and the NHG Education Leader Award in 2014.

Selected Publications

- Huckins LM et al. **Gene Expression Imputation across Multiple Brain Regions Provides Insights into Schizophrenia Risk.** *Nat Genet.* 2019; 51(4):659-674.
- de Kovel CGF, Aftanas L, Aleman A... Schrantee A, Sim K et al. **No Alterations of Brain Structural Asymmetry in Major Depressive Disorder: An ENIGMA Consortium Analysis.** *Am J Psychiatry.* 2019; 176(12):1039-1049.
- Cross-Disorder Group of the Psychiatric Genomics Consortium. **Genomic Relationships, Novel Loci, and Pleiotropic Mechanisms across Eight Psychiatric Disorders.** *Cell.* 2019; 179(7):1469-1482.e11.

- Chew QH, Ang LP, Tan LL et al... Sim K. **A Cross-sectional Study of Burnout and its Associations with Learning Environment and Learner Factors among Psychiatry Residents within a National Psychiatry Residency Programme.** *BMJ Open.* 2019; 9(8):e030619.
- Chen J, Patil KR, Weis S, Sim K et al. **Pharmacotherapy Monitoring and Outcome Survey (PHAMOUS) Investigators. Neurobiological Divergence of the Positive and Negative Schizophrenia Subtypes Identified on a New Factor Structure of Psychopathology Using Non-negative Factorization: An International Machine Learning Study.** *Biol Psychiatry.* 2020; 87(3):282-293.
- Tan AS, Chew QH, Sim K. **Cerebral White Matter Changes in Deficit and Non-deficit Subtypes of Schizophrenia.** *J Neural Transm.* 2020; 127(7):1073-1079.
- Ho NF, Lee BJH, Tng JXJ... Sim K. **Corticolimbic Brain Anomalies are Associated with Cognitive Subtypes in Psychosis: A Longitudinal Study.** *Eur Psychiatry.* 2020; 63(1):e40.
- Ho NF, Tng JXJ, Wang M... Sim K et al. **Plasticity of DNA Methylation, Functional Brain Connectivity and Efficiency in Cognitive Remediation for Schizophrenia.** *J Psychiatr Res.* 2020; 126:122-133.
- Patel Y... Sim K et al. **Virtual Histology of Cortical Thickness and Shared Neurobiology in 6 Psychiatric Disorders.** *JAMA Psychiatry.* 2020; e202694.
- Chew QH, Tan E, Sum MY, Sim K. **Inter-relationships between Perception of Educational Environment and Learning Processes within Medical Undergraduate Psychiatry Teaching: A Mediation Analysis.** *Med Educ Online.* 2021; 26(1):1998944.
- McWhinney SR, Brosch K, Calhoun VD, Sim K et al. **Obesity and Brain Structure in Schizophrenia - ENIGMA Study in 3021 Individuals.** *Mol Psychiatry.* 2022.
- Brouwer RM, Klein M, Grasby KL,... Sim K, et al. **Genetic Variants Associated with Longitudinal Changes in Brain Structure across the Lifespan.** *Nat Neurosci.* 2022; 25(4):421-432.
- Chew QH, Prakash KNB, Koh LY, Chilla G, Yeow LY, Sim K. **Neuroanatomical Subtypes of Schizophrenia and Relationship with Illness Duration and Deficit Status.** *Schizophr Res.* 2022; 248:107-113.

Notable Research Awards & Grants From Past 5 Years

Name of Awards & Grants	Year Obtained
"Epigenetics and Cognitive Functioning in Major Depressive Disorder with Psychotic Features"	2016
"Understanding the neurobiology of cognitive dysfunction in schizophrenia"	2016
"Cerebellar Calcium Channel Defects in Schizophrenia"	2020