

Dr. Francis Wayne Quan Memorial Prize 2023

The Mach-Gaensslen Foundation of Canada (<https://mach-gaensslen.ca/>) and *JPN* are pleased to announce the co-recipients of the Dr. Francis Wayne Quan Memorial Prize for the best research paper published in the journal in 2023. The prize was launched in 2022 to honour the contributions of psychiatrist and former editor Dr. Francis Wayne Quan to the foundation and the journal.

The winning papers were judged by members of the editorial board, who were not authors on the papers. All research papers published in *JPN* in 2023 were eligible. The journal focuses narrowly on papers that provide insights into the neural mechanisms involved in the etiology and treatment of specific psychiatric disorders. Thus, the papers were judged for excellence on the following criteria: mechanistic insight, novelty of the findings, innovation of the approach, importance of the findings, clarity of the results, and conclusions. Based on the rankings the committee has awarded the prize of \$2500 to 2 co-recipients.

Congratulations to the recipients!

Abnormal interhemispheric functional cooperation in schizophrenia follows the neurotransmitter profiles

Kongliang He, Qiang Hua, Qianqian Li, Yan Zhang, Xiaoqing Yao, Yinian Yang, Wenqiang Xu, Jinmei Sun, Lu Wang, Anzhen Wang, Gong-Jun Ji, and Kai Wang. *J Psychiatry Neurosci* 2023;48:E452-60. (<https://www.jpn.ca/content/48/6/E452>).

This work reported abnormal interhemispheric functional connectivity in a large cohort of patients with schizophrenia compared with controls using a measure of connectivity between functionally homotopic interhemispheric voxels rather than structural homotopy, as has been used previously. This study correlated altered functional connectivity with disease severity and showed that the location correlated with positron emission tomography-based spatial localization of dopamine and serotonin receptors, transporters, and neurotransmitter levels. Thus, this work provided novel insight into cellular- and molecular-level mechanisms associated with brain circuitry changes in mental illness.

Gut-brain axis volatile organic compounds derived from breath distinguish between schizophrenia and major depressive disorder

Dariusz Henning, Marian Lüne, Carina Jiang, Gabriela Meyer-Lotz, Christoph Hoeschen, and Thomas Frodl. *J Psychiatry Neurosci* 2023;48:E117-25. (<https://www.jpn.ca/content/48/2/E117>).

As a noninvasive indicator of metabolic or microbiota alterations, this study used an innovative approach to identify differences in volatile organic compounds from the breath in patients with major depressive disorder or schizophrenia and healthy controls. The study found that a subset of 5 detected compounds from the breath was enough for classification of these disorders. Interestingly, 2 of these compounds (trimethylamine and butyric acid) have been implicated as microbiota-gut-brain messengers that affect brain function. While preliminary, these findings suggest that components of the breath may provide useful, functional markers for mental illness.

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