

## **DBT-Instem team studies psychiatric symptoms & syndromes in multiplex families**

New Delhi, Feb 08: Psychiatric conditions including schizophrenia, bipolar affective disorder, obsessive-compulsive disorder, substance use disorders and Alzheimer's dementia are heritable.

A team of scientists in the 'Accelerator program for Discovery in Brain disorders using Stem cells (ADBS)' at DBT- Institute for Stem Cell Science & Regenerative Medicine (DBT-inStem) has studied the pattern of occurrence of psychiatric symptoms and syndromes in members of multiplex families with any of these psychiatric conditions.

The research group screened 3,583 families and identified 481 families with multiple affected members. A total of 1,406 individuals from these families were assessed in person to collect systematic information about other relatives.

The study found that these families had nearly a third of all its first-degree related members with serious mental illnesses and noted that there was an aggregation of similar diagnosis within these families. Even then, nearly two-third of these families had members with dissimilar psychiatric syndromes and 15% of affected individuals met criteria for co-occurrence of two or more syndromes.

Further cross-sectional analysis of symptoms of different psychiatric spectra detected a range of symptom clusters across diagnostic categories. A significant proportion of unaffected relatives from these families also had sub-threshold clinical symptoms across the spectra.

A considerable heterogeneity among clinical symptoms and syndromes in these multiplex families suggests a great overlap in the diagnostic categories. These densely affected families would provide novel opportunities for genetic and biomarkers-based trans-diagnostic research. These findings are recently published in the *Psychiatry Research*, ScienceDirect journal.

The Accelerator program for Discovery in Brain disorders using Stem cells (ADBS) is a DBT funded programme to understand mental illness by harnessing the power of sophisticated clinical investigations, modern human genetics, and stem cell technology. The programme involves three institutions, the National Centre for Biological Sciences (NCBS), the Institute for Stem Cell Science and Regenerative Medicine (inStem), and the National Institute for Mental Health and Neurosciences (NIMHANS).

Sreeraj V.S., Holla B., Ithal D., Nadella R.K., Mahadevan J., Balachander S., Ali F., Sheth S., Narayanaswamy J.C., Venkatasubramanian G., John P., Varghese M., Benegal V., Jain S., Reddy Y.C.J., ADBS Consortium, Viswanath B. Science Direct (2021)

<https://www.sciencedirect.com/science/article/pii/S0165178120333084?via%3Dihub>

Link: <https://instem.res.in/>