

Special interview with Professor Padinjat and Dr Muralidharan at inStem as part of Brain Awareness Week

By Dr. Bilqeesa Bhat



As a part of Brain Awareness Week, an interview of eminent scientist was conducted at Institute for Stem Cell Science & Regenerative Medicine (inStem), Bengaluru. In interview, Prof Raghu Padinjat from National Center for Biological Sciences (NCBS), Bengaluru, a lead investigator of the Accelerator Program for discovery in brain disorders using Stem cells (ADBS) and Dr. Bhavana Muralidharan, an investigator in the brain development and disease mechanisms theme at inStem as part of this campaign spoke about their collaborative research work will create a niche in brain disorders and medical science. It will help in better understanding of mental illness by harnessing the power of sophisticated clinical investigations, modern human genetics, and stem cell technology.

In the interview, Prof. Padinjat mentioned that mental illness is an important biomedical problem in India with nearly 7% of the population affected by some form of mental illness including young generation. She spoke about her lab work that generates 2D and 3D cerebral organoid cultures in combination with CRISPR-Cas gene editing to model neuropsychiatric disorders in a dish.

Dr. Bhavana stated that their work extends from basic to translational in trying to understand the cellular and molecular mechanisms of neurodevelopmental disorders like schizophrenia

(SZ) and bipolar disorder (BPD). Poorly understood mental illnesses have neuro-developmental origins and this collaborative effort would help in understanding the human disease at multiple levels – to come up with better curative measures in future.

Brain Awareness Week is a global initiative to foster public awareness for brain science. Scientists at Institute for Stem Cell Science & Regenerative Medicine (inStem), Bengaluru, used the opportunity to deep dive into research in this area taking place inside their campus.