



**NATIONAL INSTITUTE OF MENTAL HEALTH & NEURO
SCIENCES (NIMHANS), BANGALORE – 560029, INDIA.**

Institute of National Importance

TO WHOM IT MAY CONCERN

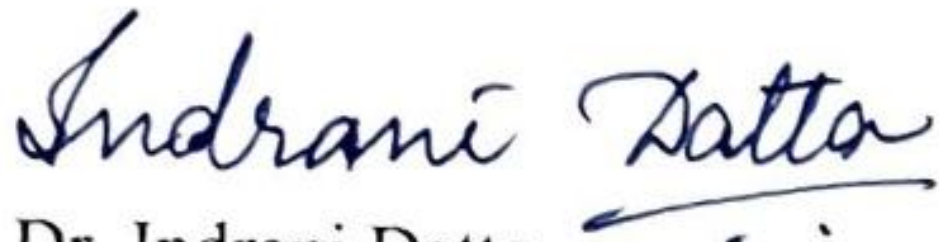
The candidate Mr. Soham Jagtap is an ICMR Senior Research Fellow and pursuing Ph.D. in Department of Biophysics, NIMHANS. He had joined the lab under an industrial project under Biotechnology Industry Research Assistance Council (BIRAC) funded project “Generation of induced pluripotent stem cells and midbrain floor plate cells from Indian ethnicity Parkinson’s disease patients”. He has cleared the NIMHANS All India Test to secure the Ph.D. seat in Department of Biophysics. He has also secured the Senior Research Fellowship from the Indian Council of Medical Research for his Ph.D. work. He was selected for The Center for iPS Cell Research and Application (CiRA)-ADBS training program in generation and maintenance of human induced pluripotent stem cells,” organized by the Department of Biotechnology, Government of India and Kyoto University, Japan as well as for Human induced Pluripotent Stem Cell (iPSC) Workshop organised by Centre for Stem Cell Research (CSCR), Vellore.

From my laboratory itself he has gained hands-on experience on induced pluripotent stem cell (iPSC) culture and has been an integral member in contributing to the generation of five Indian ethnicity Parkinson’s Disease (PD) iPSC lines and corresponding control iPSCs from healthy subjects and has authored for iPSC publications too. His Ph.D. topic is “Evaluation of LRRK2 I1371V mutation on the cellular pathogenesis of Parkinson’s disease using patient-specific induced pluripotent stem cells of Indian ethnicity”. These lines were published in Stem Cell Research Journal.

The research work proposes to generate a disease-in-a-dish model of PD from iPSCs of patients of Indian ethnicity. At present there are no iPSC lines for PD from the Indian PD cohort. The outcome of this proposed project will be characterized iPSC line, iPSC derived neural precursors and dopaminergic neurons with respect to its mimicking the cellular pathogenesis of PD. It will be a step to understand the association of the LRRK2 I1371V mutation on the yield and function of dopaminergic neurons along with the alpha-synuclein phosphorylation under physiological conditions and stress. Evaluation of functional parameters of the dopaminergic neurons and neural precursors such as intracellular calcium signalling, electrophysiological responses to physiological stimuli and vesicular dopamine release is under progress. Compound identification, target validation, compound screening, tool discovery and pharmaco-toxicological screening can be conducted in high-throughput systems using these human cells. Furthermore, this approach will help with early

determination of whether this specific general population respond well to a drug candidate, a novel approach to personalized medicine.

As a researcher Soham has exhibited the correct balance of determination, hard work and resilience. He can design his experiments and is capable of troubleshooting them with logic. He is a team person and contributes substantially for other lab-work too. I believe he is a well-deserving candidate for the Sun-Pharma Science Scholars Award and strongly recommend his candidature. It will be a valuable recognition for his hard work in the field of science.



Dr. Indrani Datta

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