

Soham Jagtap

Ph.D. student,
National Institute of Mental Health and Neurosciences (NIMHANS)



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Official address: Biophysics Department, National Institute of Mental Health and Neurosciences, Hosur Road, Bengaluru – 560029

Education:

1. **Integrated Master of Technology (Int. M.Tech.) in Biotechnology (August 2014 – August 2015)**
Institute of Bioinformatics & Biotechnology (IBB), Savitribai Phule Pune University (SPPU)
CGPA 5.82/6 = **97 %**
2. **Integrated Master of Science(Int. M.Sc.) in Biotechnology (July 2009 – July 2014)**
IBB, SPPU
CGPA (Sem I - X) 4.89/6 = **81.5 %**
3. **Higher Secondary Examination (10+2) (August 2007 – May 2009)**
Maharashtra State Board., Pune
Percentage = **81.58 %**
4. **Senior Secondary Examination (10th grade) (2006-2007)**
Maharashtra State Board., Pune
Percentage = **88.46%**

Publications:

1. Datta I, **Jagtap S**, Yadav R, Pal PK. Generation of induced pluripotent stem cells (NIMHi002-A and NIMHi003-A) from two sporadic Parkinson's disease patient of East Indian ethnicity. Stem Cell Research. 2020 Dec 1;49:101995.
2. Datta I, **Jagtap S**, Potdar C, Yadav R, Pal P. Generation of induced pluripotent stem cells (NIMHi001-A) from a Parkinson's disease patient of East Indian ethnicity carrying LRRK2 I1371V variant. Stem cell research. 2020 Apr 1;44:101768.
3. Ghosh S, More P, Nitnavare R, **Jagtap S**, Chippalkatti R, Derle A, Kitture R, Asok A, Kale S, Singh S, Shaikh ML. Antidiabetic and antioxidant properties of copper nanoparticles synthesized by medicinal plant *Dioscorea bulbifera*. Journal of Nanomedicine & Nanotechnology. 2015 Nov 1(S6):1.
4. Ghosh S, **Jagtap S**, More P, Shete UJ, Maheshwari NO, Rao SJ, Kitture R, Kale S, Bellare J, Patil S, Pal JK. *Dioscorea bulbifera* mediated synthesis of novel AucoreAgshell nanoparticles with potent antibiofilm and antileishmanial activity. Journal of Nanomaterials. 2015 Jan 1;2015.
5. **Jagtap S**, Shivaprasad PV. Diversity, expression and mRNA targeting abilities of Argonaute-targeting miRNAs among selected vascular plants. BMC genomics. 2014 Dec;15(1):1-4.

Patents

1. Ghosh, S., **Jagtap, S.**, More, P., Chopade, B. A. (2013) A process for synthesis of bimetallic AucoreAgshell nanoparticles by tuber extract of a medicinal plant called *Dioscorea bulbifera*. **Indian Patent 3973/MUM/2013.**
2. Ghosh, S., More, P., **Jagtap, S.**, Chopade, B. A. (2013). Synthesis of novel copper nanoparticles with alpha amylase inhibitory activity by *Dioscorea bulbifera* tuber extract. **Indian Patent 3971/MUM/2013.**

Research Experience:

1. **National Institute of Mental Health and Neurosciences (NIMHANS), Bengaluru** (Guide: Dr. Indrani Datta) April 2018 – Present

Ph.D. thesis: "Evaluation of LRRK2 I1371V mutation on cellular pathogenesis of Parkinson's disease using patient-specific induced pluripotent stem cells of Indian ethnicity"

2. **Institute for Stem Cell Biology and Regenerative Medicine, Bengaluru**, (Principal Investigator: Dr. Dhandapany Perundurai) August 2017 – March 2018

"Identification of novel genes and gene regulatory elements responsible for cardiomyopathies."

3. **NIMHANS/ National Centre for Biological Sciences (NCBS), Bengaluru** (Principal Investigator: Dr. Sanjeev Jain / Dr. Odity Mukherjee / Dr Biju Vishwanath) June 2016 – July 2017

"Accelerator program for Discovery in Brain disorders using Stem cells"

Dissertation projects:

1. **IBB, SPPU** (Guide: Dr. Geetanjali Tomar) June 2014 – October 2015
"In vitro optimization of cell scaffold seeded with osteogenic stem cells potential applications in for bone regeneration"
2. **NCBS, Bengaluru** (Guide: Dr. P.V. Shivaprasad) December 2013-May 2014
"Evolution & expression analysis of microRNA gene families in plants targeting Argonautes".
3. **IBB, SPPU**, (Guide: Prof. B. A. Chopade / Dr. Sougata Ghosh) July 2011 – March 2013
"Enhanced efficacy bimetallic Nanoparticles produced from *Dioscoria bulbifera*".

Conferences:

1. **Online International Symposium on "Molecular Imaging and Stem Cells"** (Oral presentation) 3rd – 4th March 2021, Biophysics department, NIMHANS
2. **"Futures in Biology"- NCBS Annual Talks 2017 (poster presentation)** 11th – 14th Jan 2017, NCBS, Bengaluru, India.
3. **"Biology Across Scales"- NCBS Annual Talks 2015 (poster presentation)** 5th – 8th Jan 2015, NCBS, Bengaluru, India.
4. **International Symposium on Drug Discovery for Infectious Diseases and Cancer (DDIDC) (poster presentation)** 16th – 17th January, 2013, Institute of Chemical Technology, Mumbai, India. Abstract, pp.150.
5. **Nanostructured Materials for Energy Devices and Environment (Review poster)** 17th -18th August, 2011, jointly organized by Department of Physics & Centre for Nanoscience & Nanotechnology, University of Mumbai, Mumbai, India.

6. IBB Students National Conference in Biotechnology (poster presentation)

28th February 2011, IBB, Pune University, India.

Workshops:

1. **"Human iPSCs workshop 2019"** organised by "Centre for Stem Cell Research", Vellore **Dates** - Feb 17th- 24th 2019
2. **"Training program in Generation and Maintenance of Human iPS cells"** organized by "The Accelerating the application of Stem cell technology in Human Diseases (ASHD)" program supported by Department of Biotechnology (DBT), Government of India and The Centre for iPS Cell Research and Application (CiRA), Kyoto University, Japan.
Dates - Nov 27th- Dec 4th 2019

Technical Skills:

1. **Animal Cell culture:** Peripheral blood mononuclear cell (PBMC) isolation, iPSC generation using Sendai virus, Epstein Barr Virus mediated PBMC transformation to lymphoblastoid cell line, Karyotyping, B95.8 Marmoset line and EBV harvesting, Embryonic stem cell (ESC) culture and differentiation to cardiomyocytes, Gingival Mesenchymal Stem Cell (GMSC) isolation and differentiation (neurogenic, chondrogenic & osteogenic), Immunocytochemistry, Cell toxicity assay (MTT).
Cell line maintenance - B95.8 Marmoset line, GMSC, iPSC, ESC, Neural stem cell, HeLa, HEK293
2. **Histology** – CLARITY, Sectioning - Vibratome, microtome and cryostat
3. **Molecular Biology:** DNA isolation from animal & bacterial cells, RNA isolation, DNA fragmentation, PCR (gradient, real time, RT-PCR), Site directed Mutagenesis
4. **Animal skills:** Mouse handling and restraining, Intra-peritoneal and subcutaneous injection, Echocardiography of mice (Vevo 3100), Rotarod
5. **Bioinformatics:** Artificial miRNA designing, Multiple Sequence Alignment, Data mining, Disease Gene prioritization from Exome dataset, miRNA-mRNA targeting.

Achievements:

1. **Indian Academy of Sciences Summer Research Fellowship** May – July 2013, IISc, Bengaluru.
2. **Indian Academy of Sciences Summer Research Fellowship** May – July 2011, ICGEB, New Delhi.

References:

1. **Dr. Indrani Datta**
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National Institute of Mental Health and Neuro Sciences,
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Contact – indrani.datta@gmail.com
2. **Dr. Biju Viswanath**
Associate Professor
Department of Psychiatry
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India
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bijuv1@gmail.com