CURRICULUM VITAE

Personal details

Name:	**Swayam Prakash Singh**
Date of Birth:	4th August 2001
Current Address:	IISER Hostel - 1, NCL Colony, Pashan, Pune, Maharashtra – 411008
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Academic details

- **BS-MS Dual degree** – Expected July 2024, from Indian Institute of Science Education and Research, Pune, Maharashtra
- **12th Standard, Science Stream** – May 2019, from DAV Public School, Chandrasekharpur, Bhubaneswar, Odisha, affiliated to CBSE, with an overall percentage of 94.2
- **10th Standard** – May 2017, from DAV Public School, CDA, Cuttack, Odisha, affiliated to CBSE, with CGPA 10.0

Academic Achievements

- JEE Advanced 2019 – All India Rank (AIR) 1430
- JEE Main 2019 – AIR 2815
- NSEC 2018 (Qualified for INChO 2019)
- RMO 2018 (Qualified for INMO 2019)
- KVPY 2018 SX stream – AIR 560
- KVPY 2017 SA stream – AIR 445
- NTSE Scholar 2017

Interests

- Studying membrane protein function.
- Post translational modifications to proteins.
- *In vitro* organelle reconstitution.

Work Experience

- May-July 2022 – Summer project in Pucadyil lab, IISER Pune – Purifying mNeonGreen and testing it's binding to anti-mCherry and anti-GFP nanobodies

- August-November 2022 – Semester project in Pucadyil lab, IISER Pune – Standardising a protocol to isolate mitochondria from mammalian culture cells.
- January-April 2023 – Semester project in Pucadyil lab, IISER Pune – Developing a method to selectively crosslink His-tagged proteins with lipids

Research relevant skills

- Expression and affinity-based purification of proteins from bacterial cultures.
- Molecular biology techniques – cloning, site-directed mutagenesis, bacterial transformation, SDS-PAGE, Western blotting
- Experience in using Fiji ImageJ2, GraphPad Prism, ChimeraX
- Experience in handling FPLC, UV-Vis spectrophotometer, Epifluorescence microscope, Microplate reader.

Conferences and seminars attended

- Thirsting for Theoretical Biology, organised by International Centre for Theoretical Sciences.
- Physical Chemistry and Physical Biology organised by IIT Tirupati, NCBS, IIT Bombay, IISc and DST, Government of India

Key courses taken

August 2020
- BI2113 : Ecology and Evolution
- BI2123 : Biology of Systems

January 2021
- BI2213 : Cell Biology
- BI2223 : Physiology
- BI2233 : Genetics

August 2021
- BI3124 : Advanced Molecular Biology
- BI3134 : Bioinformatics
- BI3174 : Advanced Biochemistry - I
- BI3194 : Developmental Biology

January 2022
- BI3224 : Introductory Immunology
- BI3234 : Animal Behaviour
- BI3244 : From Planets to Cells
- BI3264 : Mathematical and Computational Biology
- BI3284 : Advanced Biochemistry - II

August 2022

- BI3144 : Cellular Biophysics - I
- BI3323 : Structural Biology
- BI3344 : Microbial Genetics

January 2022

- BI3254 : Microbiology
- BI3413 : Physical Biochemistry
- BI3433 : Evolution
- BI3444 : Genome biology and Epigenetics

Extra curriculars

- Coordinator (2020-2021) - Art Club, IISER Pune
- Graphic Design head (2020-2021) - Kalpa, IISER Pune
- Graphic Design head (2020-2021) - TEDxIISERPune
- Graphic Design volunteer (2021-2022) - Inventa Science Magazine 2022
- Graphic Design support team (2022) - iGEM IISER Pune
- Graphic Design team (2022) - Lumineers, AIC-SEED foundation

Other skills

- Proficient in Adobe Illustrator, Adobe InDesign, and Procreate for iPad
- Object oriented programming in C++
- Assembling desktop computers
- Precise crafting using EVA foam
- Proficient in spreadsheet, word processing and presentation softwares

Hobbies and other interests:

I like doing digital art, learning to play musical instruments like the guitar and the piano, playing video games, and reading fiction in my leisure time. I also like to cook and play badminton whenever I get the chance to. I take part in cosplay events once in a while by making my own costumes.