

Adrika Chaudhuri

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BRIEF

I am a fourth year undergrad majoring in Life Sciences and minoring in Physics. I am interested in the neurobiology of behaviour, and theoretical ecology.

EDUCATION

IISER Kolkata <i>BS-MS Dual Degree</i>	India 09/2022 – Present
South Point High School <i>AISSE, AISSCE</i>	India -June 2022

EXPERIENCE

iGEM IISER Kolkata, 2023 <i>Biomodeller, Human Practices Member</i>	1st Year May 2023 - Nov 2023
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We worked on developing an eco-friendly biocontrol agent to mitigate losses caused by the harmful bacterial pathogen, *Xanthomonas oryzae*, using outer membrane vesicles of *E. coli* to deliver CRISPR antibodies. We also developed a detection kit for the detection of bacterial blight of rice, our target disease, and won a gold medal at the iGEM grand Jamboree in Paris for our project. I am well-versed in various lab techniques like ultracentrifugation, PCR, plasmid isolation, primer designing, and other lab skills. I am also experienced in modelling biological systems.

IISc Bangalore, 2024 <i>Theoretical Ecology</i>	2nd Year May 2024 – July 2024
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As part of my internship here, I did work spanning both drylab and wetlab. The dry lab component involved making a model that examined whether high and low quality males adopt significantly different mating strategies in a polygynous population, and what conditions might be necessary for it. For the wetlab component, I was involved in the parentage analysis of collected samples of *Psammophilus dorsalis*.

Institut des Neurosciences, Paris-Saclay <i>Neural Circuits and Behaviour, Charpak Fellowship</i>	3rd Year May 2025 – July 2025
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I interned in Dr. Tihana Jovanic's lab, where I worked in larval anemotaxis behaviour in *Drosophila melanogaster*. My work spanned immunohistochemistry of larval brains for site of neuromodulation, and behavioural analyses of mutant phenotypes.

IISER Kolkata <i>Behavioural Genetics</i>	Long-term Project 01/2024 – Present
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As part of the set of experiments I am running, I am interested in finding out the circuitry that controls protein-feeding behaviour in mated female *Drosophila*. I have devised experiments that aim to select between candidate hormones as the cause for the feeding behaviour, regulated by octopamine.

SCHOLARSHIPS

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- **Kishore Vaigyanik Protsahan Yojana (KVPY-SX)** *Govt. of India.*
 - **Charpak Summer Training Scholarship** *Govt. of France.*

SKILLS

- **Programming Language:** Python, R
- **Wetlab:** PCR, Confocal Microscopy, FACS, Plasmid Isolation, Parentage analysis, *Drosophila* genetics and behaviour, Neural Circuits, Immunohistochemistry, Larval and Adult *Drosophila* dissection.
- **Drylab:** Experienced in agent based modelling and off-lattice models in ecological contexts. Comfortable with python-based simulations, and introductory game theoretical analysis.
- **Languages:** English, Bengali, German(A2), French (A1)