

Doctor of Philosophy Programme (DBS)
Ph.D. Advertisement for the Spring 2026 semester

Applications are invited from eligible candidates for admission to the Ph.D. program of the Department of Biological Sciences, IISER Kolkata. The details of the admission process are given below. Applicants are advised to go through the research areas available at the following link on the Institute website (<https://www.iiserkol.ac.in/web/en/people/faculty/dbs/>) as well as the department page (http://bio.iiserkol.ac.in/?page_id=5624).

The fields of research open to application in this round of Ph.D. selections are given below, along with names of faculty members working in the respective fields:

Inter-disciplinary Biology: For students interested to work in the areas of One Health, Microplastic in food and environment, microbial engineering, applied microbiology, extremophiles, enzyme technologies, synthetic biology and antimicrobial resistance

- Sunil Kumar Khare (E-mail: skkhare@iiserkol.ac.in)
(https://bio.iiserkol.ac.in/?page_id=1949) **in collaboration with**
- Supratim Datta (E-mail: supratim@iiserkol.ac.in)
(<https://www.iiserkol.ac.in/web/en/people/faculty/dbs/supratim/>)
- Amirul Islam Mallick (E-mail: amallick@iiserkol.ac.in)
(<https://www.iiserkol.ac.in/web/en/people/faculty/dbs/amallick/>)
- Punyasloke Bhadury (E-mail: pbhadury@iiserkol.ac.in)
(<https://www.iiserkol.ac.in/web/en/people/faculty/dbs/pbhadury/>)

Biophysics, Biochemistry, and Structural Biology: For students interested in Cellular Biophysics, Structural Biology, cryo-EM, Antimicrobial Resistance (AMR), Molecular Biophysics, Molecular Biology, Biochemistry/Chemical Biology, Structural Proteomics, Cell Signaling, Structure based Drug Designing, Drug Development, Drug Delivery, Molecular Medicine, Peptide based therapeutics against Cancer targeting oncogenic signalling pathways, Peptide-based Immuno-combination therapy, Targeted therapy for Cancer, Ischemic Disease, Bleeding Disorder, Cancer Nanomedicine and Regenerative Nanomedicine, Clinical Proteomics of biological fluids and tissues from patient sample, Imaging of clinically important molecules in human tissues

- Amit Kumar Mandal (E-mail: amitkm@iiserkol.ac.in)
(<https://www.iiserkol.ac.in/web/en/people/faculty/dbs/amitkm/>)
- Bidisha Sinha (E-mail: bidisha.sinha@iiserkol.ac.in)
(<https://www.iiserkol.ac.in/%7Ebidisha.sinha/>)
- Neelanjana Sengupta (E-mail: n.sengupta@iiserkol.ac.in)
(<https://www.iiserkol.ac.in/web/en/people/faculty/dbs/n-sengupta/>)
- Partha Pratim Datta (E-mail: partha_datta@iiserkol.ac.in)
(https://www.iiserkol.ac.in/web/en/people/faculty/dbs/partha_datta/)
- Rahul Das (E-mail: rahul.das@iiserkol.ac.in)
(<https://www.iiserkol.ac.in/web/en/people/faculty/dbs/rahul-das/>)
- Rituparna Sinha Roy (E-mail: rituparna@iiserkol.ac.in)
(<https://www.iiserkol.ac.in/web/en/people/faculty/dbs/rituparna/>)

Theoretical biophysics, Mathematical Biology and Soft Matter Physics: For students from physics/mathematics background interested in biological physics, non-equilibrium phase transitions, and stochastic models in biology.

- Dipjyoti Das (E-mail: dipjyoti.das@iiserkol.ac.in)
(<https://www.iiserkol.ac.in/web/en/people/faculty/dbs/dipjyoti-das/>)
- Neelanjana Sengupta (E-mail: n.sengupta@iiserkol.ac.in)
(<https://www.iiserkol.ac.in/web/en/people/faculty/dbs/n-sengupta/>)

Cell Biology and Protein Biochemistry: For students interested in Actin Binding protein in cell migration and diseases.

- Sankar Maiti (E-mail: spm@iiserkol.ac.in)
(<https://www.iiserkol.ac.in/web/en/people/faculty/dbs/spm/>)

Developmental and Stem Cell Biology: For students interested in Mesenchymal Stem cell biology and Metazoan Morphogenesis.

- Malancha Ta (E-mail: malancha.ta@iiserkol.ac.in)
(<https://www.iiserkol.ac.in/web/en/people/faculty/dbs/malancha-ta/>)
- Mohit Prasad (E-mail: mohitprasad@iiserkol.ac.in)
(<https://www.iiserkol.ac.in/web/en/people/faculty/dbs/mohitprasad/>)

Disease Biology: For students interested in Virology, Immunology, Epigenetics and Chromatin Biology, Gene Regulation, Neural Cell Biology, Neuroscience, Lysosome Biology and related Diseases, Natural Killer cells, Immunotherapy, Cancer, Infectious Diseases, Peptide based therapeutics against Cancer targeting oncogenic signalling pathways, Peptide-based Immuno-combination therapy, Targeted therapy for Cancer, Ischemic Disease, Bleeding Disorder, Antimicrobial Resistance (AMR) and One Health, Molecular Basis of Stress Response, Drug Development, Drug Delivery, Molecular Medicine, Cancer Nanomedicine and Regenerative Nanomedicine, Clinical Proteomics of biological fluids and tissues from patient sample, Imaging of clinically important molecules in human tissues

- Amirul Islam Mallick (E-mail: amallick@iiserkol.ac.in)
(<https://www.iiserkol.ac.in/web/en/people/faculty/dbs/amallick/>)
- Amit Kumar Mandal (E-mail: amitkm@iiserkol.ac.in)
(<https://www.iiserkol.ac.in/web/en/people/faculty/dbs/amitkm/>)
- Jayasri Das Sarma (E-mail: dassarmaj@iiserkol.ac.in)
(<https://www.iiserkol.ac.in/web/en/people/faculty/dbs/dassarmaj/>)
- Partha Pratim Datta (E-mail: partha_datta@iiserkol.ac.in)
(https://www.iiserkol.ac.in/web/en/people/faculty/dbs/partha_datta/)

- Rahul Das (E-mail: rahul.das@iiserkol.ac.in)
(<https://www.iiserkol.ac.in/web/en/people/faculty/dbs/rahul-das/>)
- Rituparna Sinha Roy (E-mail: rituparna@iiserkol.ac.in)
(<https://www.iiserkol.ac.in/web/en/people/faculty/dbs/rituparna/>)
- Rupak Datta (E-mail: rupakdatta@iiserkol.ac.in)
(<https://www.iiserkol.ac.in/web/en/people/faculty/dbs/rupakdatta/>)
- Sumit Sen Santara (E-mail: sumit.santara@iiserkol.ac.in)
(<https://www.iiserkol.ac.in/web/en/people/faculty/dbs/sumit-santara/#gsc.tab=0>)

(PI: Jayasri Das Sarma) : Neurovirology, Neuroimmunology and Neurobiology of the Diseases and Cancer Biology

- a) Nexus between Virus-induced neuroinflammation and gap junction intercellular communication to understand the mechanism of virus-induced Neurodegeneration and finding parallels between the human neurological disease multiple sclerosis and SARS-CoV-2 mediated neuropathogenesis.
 - b) Understanding the Synergistic effect of age associated stressors in driving chronic inflammation and modulating Gap Junction Intercellular Communication in Pre-clinical Experimental mouse cohort.
 - c) Therapeutic approaches in combating glioblastoma and cervical and ovarian cancers.
 - d) Biology-Chemistry interphase work - focusing on creating therapeutic agents that can interact with specific biological targets to modulate disease pathways specially cancer.
- Jayasri Das Sarma (E-mail: dassarmaj@iiserkol.ac.in)
(<https://www.iiserkol.ac.in/web/en/people/faculty/dbs/dassarmaj/>)

Microbiology and Marine Biology: For students interested in Marine Microbiology, Climate Change and Ocean Acidification, Microbial Ecology, Community and Ecosystem Ecology, Restoration Ecology, Biodiversity Conservation, Wildlife Habitat Management, and Bioremediation.

- Amirul Islam Mallick (E-mail: amallick@iiserkol.ac.in)
(<https://www.iiserkol.ac.in/web/en/people/faculty/dbs/amallick/>)
- Partha Pratim Datta (E-mail: partha_datta@iiserkol.ac.in)
(https://www.iiserkol.ac.in/web/en/people/faculty/dbs/partha_datta/)
- Punyasloke Bhadury (E-mail: pbhadury@iiserkol.ac.in)
(<https://www.iiserkol.ac.in/web/en/people/faculty/dbs/pbhadury/>)
- Robert John Chandran (E-mail: robert.john@iiserkol.ac.in)
(<https://www.iiserkol.ac.in/web/en/people/faculty/dbs/robert-john/>)

Synthetic Biology and Biotherapeutics: For students interested in synthetic biology and Biotherapeutics in the area of Cancer biology, Peptide based therapeutics against Cancer targeting oncogenic signalling pathways, Peptide-based Immuno-combination therapy, Targeted therapy for Cancer, Regenerative medicine, Diabetic Wound Healing, Bleeding Disorder, Therapeutic Peptide Engineering.

- Supratim Datta (E-mail: supratim@iiserkol.ac.in)
(<https://www.iiserkol.ac.in/web/en/people/faculty/dbs/supratim/>)
- Rituparna Sinha Roy (E-mail: rituparna@iiserkol.ac.in)
(<https://www.iiserkol.ac.in/web/en/people/faculty/dbs/rituparna/>)

Theoretical and Computational Biology: For students interested in any branch of Theoretical Biology, including Computational Biophysics, Multiscale Molecular Simulations, AI/ML based model development, Bioinformatics, and Computational Cell Biology and cryo-EM Image Processing

- Dipjyoti Das (Email: dipjyoti.das@iiserkol.ac.in)
(<https://www.iiserkol.ac.in/web/en/people/faculty/dbs/dipjyoti-das/>)

- Neelanjana Sengupta (E-mail: n.sengupta@iiserkol.ac.in)
(<https://www.iiserkol.ac.in/web/en/people/faculty/dbs/n-sengupta/>)
- Partha Pratim Datta (E-mail: partha_datta@iiserkol.ac.in)
(https://www.iiserkol.ac.in/web/en/people/faculty/dbs/partha_datta/)
- Rituparna Sinha Roy (E-mail: rituparna@iiserkol.ac.in)
(<https://www.iiserkol.ac.in/web/en/people/faculty/dbs/rituparna/>)

Behavior, Ecology, and Evolution: For students interested in Animal Behaviour, Community Ecology, Biodiversity and Conservation, Marine Microbiology, Microbial Ecology, Chemical Ecology, and Plant- insect Interactions.

- Annagiri Sumana (E-mail: sumana@iiserkol.ac.in)
(<https://www.iiserkol.ac.in/web/en/people/faculty/dbs/sumana/>)
- Anuradha Bhat (E-mail: anuradhabhat@iiserkol.ac.in)
(<https://www.iiserkol.ac.in/web/en/people/faculty/dbs/anuradhabhat/>)
- Punyasloke Bhadury (E-mail: pbhadury@iiserkol.ac.in)
(<https://www.iiserkol.ac.in/web/en/people/faculty/dbs/pbhadury/>)
- Radhika Venkatesan (E-mail: rv@iiserkol.ac.in)
(<https://www.iiserkol.ac.in/web/en/people/faculty/dbs/rv/>)
- Robert John Chandran (E-mail: robert.john@iiserkol.ac.in)
(<https://www.iiserkol.ac.in/web/en/people/faculty/dbs/robert-john/>)

Project-Sponsored Ph.D. Positions Available in Prof. Punyasloke Bhadury's Laboratory

Two project-funded Ph.D. positions are available in the Integrative Taxonomy and Microbial Ecology Research Group (PI- Professor Punyasloke Bhadury) to work on emerging pollutants (e.g. microplastic), in addition to nitrogen based pollutants and their effects on functional biodiversity (e.g. microbiome, fish) across aquatic ecosystems (e.g. freshwater wetlands, rivers and lagoons) and functional microbiomes in wetlands.

Essential qualifications: Master's degree in Life Science/Zoology/Fisheries/Natural Science/Biotechnology/Environmental Science/Microbiology or Agricultural Science from a recognized University or equivalent with minimum 55% marks. Candidates need to qualify NET-LS/NET-JRF (category II/III)/GATE/ICAR-NET/ DBT-JRF (Category B) or any other national exam.

Additional criteria: Experience in aquatic ecology, field work exposure on aquatic ecosystems, previous experience working with emerging pollutants (e.g. microplastic), and basic knowledge in genomics highly desirable.

Interested candidates are encouraged to e-mail to Prof. Punyasloke Bhadury (E-mail: pbhadury@iiserkol.ac.in)

Note: Only those faculty members whose names are given above will accept students through this round of Ph.D. admissions. Therefore, before applying, students should check this list carefully to ensure that labs of their interest are available for admission in this round.

Minimum Eligibility Criteria

Masters' (or B.E., B.Tech., M.Tech., MBBS) degree holders or equivalent (with **minimum 55% marks**) in any branch of science, including Physics, Chemistry, Mathematics, Biological Sciences, Agricultural Sciences, Ecology and Environmental Sciences, Pharmaceutical Sciences, Chemical Engineering or equivalent.

A relaxation of 5% marks or its equivalent grade may be allowed for those belonging to SC/ST/OBC (non- creamy layer)/Differently-Abled, Economically Weaker Section (EWS) and other categories of candidates.

Students whose final results in Master's or equivalent are yet to be declared can also apply. However, if selected, the offer for these students will be provisional, subject to fulfilling the above criteria **at the time of admission**.

AND

Applicants must have any one of the following qualifications.

- Qualified a National Level Eligibility Examination that provides a 5-year PhD fellowship such as CSIR–JRF (Category I) / UGC–JRF (Category I) / DBT–JRF–A / ICMR–JRF / DBT–BINC–JRF / Rajiv Gandhi National Fellowship/ National Fellowship for Scheduled Caste Students by CSIR-UGC / National Fellowship for Higher Education of ST Students / National Fellowship for OBC Candidates / National Fellowship for persons with disabilities (NFPWD).
- **The aforementioned fellowships must be valid on August 31, 2026.**
- **Students with 4 Years bachelor's degree with 75% marks and having their own fellowship (CSIR, UGC etc.) now are eligible for the PhD Programme of IISER Kolkata**

Shortlisting and Interview Process

Please note that fulfilling the minimum essential criteria does not ensure shortlisting for interviews. The PIs in DBS may set additional shortlisting criteria based on the candidates' academic records, experience, and research experience.

Only those candidates who have been shortlisted for the interview stages will be informed of further details. Therefore, all candidates are requested to check this page (<https://apply.iiserkol.ac.in/phd/>) regularly for updates.

Few important points:

1. **PhD Candidates can select only those faculty members as potential supervisors whose names are given in the advertisement.**
2. Candidates are requested to provide their **personal cell no. and personal e-mail address** while filling up the PhD application form. It cannot be your guardian's cell no. or e-mail address.
3. Candidates are requested to send their queries to **"PhD Helpdesk for DBS <db.s.phd.application@iiserkol.ac.in>"** with a copy to **potential supervisor.**
4. Though Department prefers in-person PhD interview, online interview requests from the candidates may be considered only on a case-by-case basis, subjected to the potential supervisor's discretion. Such request should be sent to the **potential supervisor** with a copy to **"PhD Helpdesk for DBS <db.s.phd.application@iiserkol.ac.in>"**. **Candidates appearing for online PhD interview can request their referees to e-mail the recommendation letters to potential supervisor.**
5. Candidates are requested to go through "Frequently Asked Questions" using this link: <https://apply.iiserkol.ac.in/phd/faq.html>
6. **Candidates are requested not to choose "No Specific Choice" in place of potential PhD supervisor. You need to choose your potential PhD supervisor's name among the faculty members' names given in the advertisement.**
7. You can download the recommendation letter format using this link: <https://apply.iiserkol.ac.in/phd/reco-format.pdf>

8. If you are not able to submit your application, you are requested to send your queries to **"PhD Helpdesk for DBS <dba.phd.application@iiserkol.ac.in>"** with a copy to **potential supervisor** and mention this phrase in the subject line **"Facing problem in submitting the PhD application form"**.

9. If you are not able to download the application form, in that case you need to ensure that you have completed the application form along with payment of the application fee, then only the **"Print Application Form"** link will become available.

10. Sometimes, the application fees are deducted from the online banking channel, but it fails and applicant may face problem in submitting application fees. **In that case, please visit the section "Fees" --> "Application Fee" and click on the "Refresh" link. Still, if it fails, wait for 2-3 days, money will be reverted back into the online banking channel. Then the applicants should go to Try Again under the "Fees" tab.**

11. Before the deadline, the applicant can edit both potential supervisor's name and Statement of Purpose (SOP). The candidate could change the name of the supervisor from the drop-down menu (Potential supervisor) under the tab - Statement of Purpose and edit other information in this page.

DBS Spring 2026 Ph.D. Timeline:

- **Application portal closes: 12.10.2025**
- **Publication of shortlist for the Interview: 15-22.10.2025**
- **Selection Interview window: October 29 - November 26, 2025**
- **Last date of Publication of PhD interview results: 1.12.2025**
- **Pre-registration portal opens: 24.11.2025 (after publication)**
- **PhD Registration: 29.12.2025**