

Information for Students Interested to Pursue Integrated MS-PhD at The National Institute of BioMedical Genomics (NIBMG), Kalyani

NIBMG has initiated an Integrated MS-PhD program from 2019 and the first batch of students admitted in August, 2019 are now completing their second semester. Students admitted into the program undergo mandatory Master's coursework during the first two years. This includes Master's projects to be carried out in a research lab(s) under the mentorship of NIBMG faculty, during the third and fourth semesters. After the completion of coursework, students eligible to continue for Ph.D. shall undertake thesis research and can submit her/his thesis not earlier than 5 years from admission and no later than 7 years from admission.

Research at NIBMG: Research activities at NIBMG are centred around a common theme of understanding human health and disease with emphasis laid on gaining biological insights into disease mechanisms using clinical samples and appropriate disease model systems.

NIBMG is equipped with state-of-the art technologies that include Next Generation Sequencing (NGS) platforms, genetic engineering including CRISPR-Cas DNA editing laboratories, FACS, low and high resolution imaging facility, upcoming zebrafish, small animal and proteomics facilities.

The broad areas of research pursued at NIBMG are:

1. Biomedical Genomics and the functional implications in the context of:
 - A. Cancer
 - B. Infectious disease
 - C. Chronic disease
2. Computational Biology and Statistical Genomics

Minimum Eligibility: Indian nationals with a minimum 55 % aggregate marks (or an equivalent grade point average) in Bachelor's degree in any branch of Biological Sciences are eligible to apply for admission. Students from the SC, ST, OBC (non-creamy layer), and PwD categories shall be given a relaxation of 5% marks. Students in the last year of their qualifying degree program are also eligible to apply, provided they produce proof of having secured the necessary marks in their undergraduate degree program at the time of interview.

Selection Procedure: Candidates applying for admission into our Integrated Ph.D. program need to qualify one of these 2 exams (most recent exam held), according to the screening cut-offs determined by NIBMG.

1. Joint Graduate Entrance Examination for Biology and Interdisciplinary Life Sciences (**JGEEBILS** conducted by NCBS/TIFR)
2. **JAM** (Joint Admission Test for M.Sc., conducted by IITs) for **Biotechnology (BT)**.

Candidates who fulfill the minimum eligibility conditions and have appeared for any of the above exams may apply online and are shortlisted for interview if their scores in JGEEBILS or JAM (BT) are higher than the cut-offs determined by NIBMG. Final selection is based exclusively on the candidate's Interview performance.

Number of seats: Generally, at most 10 students are selected for admission annually. There is reservation of seats for students from SC, ST, OBC and PwD classes in accordance with the regulations of Govt. Of India in this respect. Certificates from relevant authorities need to be provided as proof before the interview.

Coursework Curriculum: Integrated Ph.D. coursework has a blend of theoretical courses, practical (hands-on) lab courses, and projects in research laboratories. The first semester courses focus on basic biology such as Biochemistry, Cell Biology, Molecular Biology, Principles of Genetics etc. Second semester introduces Human Genetics and Genomics, Biostatistics, Data Analysis (in R) and includes courses discussing the biology and genetic

aspects of human diseases such as cancer, infectious and chronic diseases. Along with the lectures and practicals, each student can undergo “research rotations” in upto 3 laboratories of their choice during the first two semesters, so that the students are able to make an informed decision in selecting a supervisor before the start of the Third semester. The Third semester includes a few courses on Research Methods, Scientific Communication, advanced genomics/ bioinformatics courses in addition to a part-time research project under the assigned supervisor. The 4th semester consists of a full-time research project under the assigned supervisor.

Fellowships: The students admitted to the program receive a fellowship of Rs. 16,000 per month for the first 2 years of the program. After completion of the course work (i.e. first two years), students shall undergo comprehensive evaluation by a Review Committee. On being recommended for continuation in the PhD program, the student shall be awarded the NIBMG Ph.D. fellowship JRF/SRF (equivalent to the doctoral fellowships offered from different funding agencies as per the relevant Govt. of India guidelines), for up to 5 years. Continuation of fellowships is contingent upon maintaining satisfactory performance in coursework and research.

Early Exit: If a student wants to discontinue the course after completion of Master's coursework at the end of semester 4, they can do so after successful completion of a Master's Thesis at the end of Semester 5. Students opting out of the program will be eligible for the MS degree only after securing a CGPA of at least 5.5 (out of 10) and satisfying all other Institute requirements as stipulated by the competent authority.

Hostel Facilities: On campus shared accommodation facility is available for all admitted students on payment of prescribed fees; it is mandatory for all (unmarried) students to stay in the Hostel during the entire course of study. For details regarding the amenities available at NIBMG hostel please visit www.nibmg.ac.in/academic/hostel.pdf

Fees: There are no application fees (only online applications are accepted through <https://apply.nibmg.ac.in>).

An academic administration fee of Rs. 5,000 is payable by each student at the start of each semester. For each of the first 3 semesters, there is a tuition fee of Rs. 6000 payable at the start of the semester. A monthly fee of Rs. 2500 is charged for hostel accommodation. For those continuing in the program with a Ph.D. fellowship (JRF/SRF), only House Rent Allowance as applicable will be deducted. Medical fees (currently Rs. 250 per month) is also deducted from fellowship. A one-time fee of Rs. 10,000 would be applicable during Ph.D. Thesis submission.

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