

Deutscher Akademischer Austauschdienst German Academic Exchange Service

# INTERNATIONAL PROGRAMMES

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# Doctorate



### IMPRS for Biology and Computation (IMPRS-BAC)

Max Planck Institute for Molecular Genetics • Berlin



### Overview

Degree	Doctoral candidates enrolled at the Department of Biology, Chemistry and Pharmacy at Freie Universität Berlin can choose between the academic title Doktor der Naturwissenschaften (doctor rerum naturalium, abbreviated to Dr rer nat) or the academic title PhD. The Department of Mathematics and Computer Science confers the academic degree of Dr rer nat. Alternatively, women can be awarded the academic degree of Doktorin der Naturwissenschaften (gendered academic title) in both departments.
Doctoral degree or degree awarded by	Freie Universität Berlin
In cooperation with	Freie Universität Berlin
Teaching language	• English
Languages	Some courses at Bachelor's level may be held in German, but these courses are not mandatory.
Full-time / part-time	• full-time
Programme duration	6 semesters
Beginning	Only for doctoral programmes: any time
Additional information on beginning, duration and mode of study	We would like all new doctoral candidates to attend a Welcome Week in November 2025. This means that in most cases, your degree should be granted by October 2025. Exceptions may be possible.
Application deadline	<ul> <li>The deadline for candidates to submit written applications is7 January 2025 (18:00 CET).</li> <li>The deadline for referees to submit reference letters is14 January 2025 (18:00 CET).</li> <li>Please check our websitehttps://www.molgen.mpg.de/IMPRS/application for more details.</li> </ul>
Tuition fees per semester in EUR	None

Combined Master's degree / PhD programme	Yes
Joint degree / double degree programme	Νο
Description/content	The International Max Planck Research School for Biology and Computation is a cooperation between Freie Universität Berlin (departments of Mathematics and Computer Science as well as Biology, Chemistry and Pharmacy) and the Max Planck Institute for Molecular Genetics. Courses, seminars and joint research work foster the establishment of a close-knit community of doctoral candidates where scientific experience and knowledge is exchanged. The research focus of the graduate school is on the use of biological and computational methods to explain and predict phenomena in life sciences. This includes aspects of gene regulation and epigenetics, RNA biology, signal transduction and developmental biology, mechanobiology, stem cells and differentiation, network reconstruction and systems biology, proteomics, genomics, metabolomics, sequencing and algorithms, computational chemistry and drug design, super resolution and cryo-electron microscopy, and artificial intelligence for molecular genetics.

### **Course Details**

Course organisation	The doctoral candidates' main focus is on original research work, but they are able and encouraged to attend existing lecture courses in the university departments of mathematics and computer science or biology, chemistry and pharmacy. These are complemented by short in-depth courses in emerging technologies and cutting-edge research topics. In addition, there are plenty of courses and workshops offered in transferable skills. The curriculum is completed by regular summer schools, colloquium talks and scientific retreats. Instead of accumulating a specific amount of credit points, IMPRS-BAC doctoral candidates have to participate in a few mandatory classes and create the rest of their curriculum according to their interests and needs. Find more information here.
A Diploma supplement will be issued	Yes
International elements	<ul> <li>International guest lecturers</li> <li>Projects with partners in Germany and abroad</li> <li>Language training provided</li> </ul>
Teaching/work obligations or opportunities	There are opportunities for teaching at university level and for supervising Bachelor's or Master's students working on their theses.
Special promotion / funding of the programme	• IMPRS
Course-specific, integrated German language courses	Yes
Course-specific, integrated English language courses	Νο

## Costs / Funding

Tuition fees per semester in EUR	None
Semester contribution	Approx. 310 EUR per semester. Check here for more details.
Costs of living	About 1,200 EUR per month
Funding opportunities within the university	Yes
Description of the above- mentioned funding opportunities within the university	All accepted doctoral candidates will be offered funding through the Freie Universität Berlin, the Max Planck Institute for Molecular Genetics, third parties or others. The amount and type of funding vary. Up to two additional positions will be funded by a DAAD scholarship "Graduate School Scholarship Programme" (GSSP).

## **Requirements / Registration**

Academic admission requirements	We accept applications from students holding a Master's or comparable degree in bioinformatics, mathematics, physics, computer science, biochemistry, biotechnology, or biology. Depending on the research group students apply to, they need to have taken additional courses in the relevant scientific areas.
	We do offer a preparatory programme for exceptional students with Bachelor's degree in the computational / mathematical sciences only, who want to pursue a PhD in bioinformatics, mathematics or computer science. This preparatory programme allows them to attend lectures for three semesters at the Freie Universität in Berlin and do some lab rotations, and then start on their PhD research after a qualifying exam, without submitting a Master's thesis. Some knowledge of German may be required for the preparatory programme.
Language requirements	Fluency in spoken and written English is required. TOEFL or similar scores are not required for application, but they may be required for university admission. Please mention in your application whether your prior education was in English. Knowledge of German is not necessary but we do encourage learning German and offer financial support to learn German to our IMPRS doctoral candidates. If you are applying for the preparatory (fast-track) programme, some lectures might be in German.
Application deadline	<ul> <li>The deadline for candidates to submit written applications is7 January 2025 (18:00 CET).</li> <li>The deadline for referees to submit reference letters is14 January 2025 (18:00 CET).</li> </ul> Please check our websitehttps://www.molgen.mpg.de/IMPRS/application for more details.
Submit application to	Please see https://www.molgen.mpg.de/IMPRS/application for more details.

## Services

Accommodation	No permanent accommodation can be provided, but the guest house of the MPI for Molecular Genetics may have temporary accommodation available (maximum six months).
Structured research and supervision	Yes
Research training / discussion	Yes
Career advisory service	The Thesis Advisory Committee provides career advice during annual meetings. Find more information here: https://www.molgen.mpg.de/tac.
Support for international students and doctoral candidates	<ul> <li>Welcome event</li> <li>Accompanying programme</li> <li>Visa matters</li> <li>Support with registration procedures</li> <li>Buddy programme</li> <li>Help with finding accommodation</li> </ul>
General services and support for international students and doctoral candidates	The IMPRS-BAC is committed to creating a sense of community among its doctoral candidates and strives to ensure good social integration for all, with particular attention to international doctoral candidates. The IMPRS coordinator supports international doctoral candidates with visa matters, helps with finding housing, when possible, and helps with the administrative work at the MPIMG, the official registration with the city of Berlin, and all onboarding questions. The MPIMG International Office provides support in applying for residence permits, assists in collecting all the necessary documents, and can arrange an appointment at the Immigration Office in Berlin. The IMPRS-BAC is developing a buddy programme to facilitate the integration of its new doctoral candidates.



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Katharina Elez MSc, IMPRS-BAC Doctoral candidate

"IMPRS-BAC's invaluable soft skills workshops have shaped my PhD journey, providing me with essential tools for both academia and beyond."

### **Our Partners**



# Max Planck Institute for Molecular Genetics



MPIMG © Andreas Muhs

At the Berlin-Dahlem campus, the International Max Planck Research School for Biology and Computation has a significant number of groups working at the interface of life sciences (molecular biology, genome research) and formal sciences (mathematics, computer science). This is a cooperation between the Freie Universität Berlin (FU) and the Max Planck Institute for Molecular Genetics (MPIMG). Doctoral students of the IMPRS-BAC work at MPIMG or FU Berlin.



## Location

Berlin is a dynamic and cosmopolitan city located in the centre of Europe, offering a wide range of lifestyles, cultural events and entertainment. It is Germany's largest city with a population of 3.5 million and offers many economic, scientific, and academic opportunities.

Compared to other capital cities, living costs in Berlin are moderate. Berlin has a dynamic and very lively scene with lots of bars, clubs, restaurants, cafés, museums, and plenty of leisure amenities, whether you're looking for entertainment, sports, culture, or enjoy being out in the open air. There are large areas of forest, nature reserves, country parks, lakes, and rivers within the city boundaries. Berlin offers a truly metropolitan lifestyle, but with a relaxed atmosphere. The continental European climate is moderate with the average temperatures from 22°C to 24°C in summer and from -1°C to -4°C in winter.

### Contact

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https://twitter.com/MPI\_MolGen

in https://www.linkedin.com/company/mpi-mg/

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### International Programmes in Germany - Database

#### www.daad.de/international-programmes www.daad.de/sommerkurse

#### Editor

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#### GATE-Germany

Consortium for International Higher Education Marketing www.gate-germany.de

#### Disclaimer

The data used for this database was collected and analysed in good faith and with due diligence. The DAAD and the Content5 AG accept no liability for the correctness of the data contained in the "International Programmes in Germany" and "Language and Short Courses in Germany".

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