







BIOTECHNOLOGY AND LIFE SCIENCE	
CYCLE	XLII
COORDINATOR	Prof.ssa Elena MAESTRI email: elena.maestri@unipr.it Department of Chemistry, Life Sciences and Environmental Sustainability
DURATION	3 years
START DATE	01/11/2026
POSITIONS AVAILABLE	11
ADMISSION PROCEDURE	Assessment of QUALIFICATIONS Oral Exam in PRESENCE or REMOTELY
ADMISSION REQUIREMENTS	Regardless of age and citizenship, applicants may apply if they hold at least one of the following qualifications: <ul style="list-style-type: none">• a Master's degree (Laurea Magistrale or equivalent);• a degree awarded under the previous Italian system;• an equivalent academic qualification obtained abroad, recognized as suitable for admission to the PhD programme. Applicants who have not yet graduated may also apply, provided that they obtain their degree by 31 October 2026 .
TRAINING OBJECTIVES	
<p>The Ph.D. Course in Biotechnology and Life Sciences aims to train experts to carry out advanced research in the field of biological disciplines and biotechnology. The research topics of the Ph.D. Course are concerned with the study of the function, organization and expression of the genome of microbial, plant and animal organisms (including human beings), in order to deepen the basic knowledge, also with a view to possible applications in biotechnology. The methodologies used are mainly those of genomics, including functional genomics, genetics, molecular biology, biochemistry, applied biology and computational biology. Building on this common goal and a strongly cross-cutting advanced teaching activity, to train PhDs with highly qualifying skills in specific areas of Biotechnology and Life Sciences, three main areas of research have been identified as follows: 1) environmental biotechnologies; 2) genetic and evolutionary biotechnologies; and 3) molecular biotechnologies. PhD students will be involved full-time in a research project, to which they will also make critical and propositional contributions. In this way, they will acquire a marked scientific and managerial autonomy, also thanks to the numerous scientific collaborations, national and international, in which they will be involved.</p>	
RESEARCH AREAS	
<ul style="list-style-type: none">• Environmental biotechnologies• Genetic and evolutionary biotechnologies• Molecular biotechnologies	

Position with Scholarship		
N°	Funding entity	Research Area, if any
2	University of Parma (Ministerial funds, University funds and Cariparma Foundation)	<ul style="list-style-type: none">• Environmental biotechnology• Genetic and evolutionary biotechnology



Position with Scholarship LINKED TO SPECIFIC TOPICS (art. 6 of the Competition notice)		
N°	Funding entity	BOUND RESEARCH TOPIC
1	partially funded by University and Cariparma Foundation funds and co-funded by the Department of Chemistry, Life Sciences and Environmental Sustainability (funds Project “Dipartimenti di Eccellenza” COMP-R) 	RESEARCH TOPIC Molecular biotechnologies
1	partially funded by University and Cariparma Foundation funds and co-funded by the Department of Chemistry, Life Sciences and Environmental Sustainability (funds Project “Dipartimenti di Eccellenza” COMP-R) and by the Centre Biopharmanet TEC (funds Prof. Morselli) 	RESEARCH TOPIC Molecular biotechnology Transcriptome Engineering in Cell Line Models of Human Diseases
1	partially funded by University and Cariparma Foundation funds and co-funded by Consorzio Interuniversitario Nazionale per le Scienze Ambientali CINSA	RESEARCH TOPIC Environmental biotechnology Biotechnology applied to the identification of biomarkers for environmental exposure to nanoplastics
1	partially funded by University and Cariparma Foundation funds and co-funded by the Department of Chemistry, Life Sciences and Environmental Sustainability (funds Prof. Roberto Ferrari)	RESEARCH TOPIC Molecular biotechnology Identification of epigenetic vulnerabilities in hormone-sensitive tumors using CRISPR-Cas genome editing techniques
1	funded by the Department of Chemistry, Life Sciences and Environmental Sustainability (funds Project “Dipartimenti di Eccellenza” COMP-R) 	RESEARCH TOPIC Molecular biotechnology Transcriptional Regulation of Hormonal Balance and Secondary Metabolism by HD-ZIP II members, HAT3 and ATHB4, During Plant Development
1	funded by the Department of Chemistry, Life Sciences and Environmental Sustainability (funds Project “Dipartimenti di Eccellenza” COMP-R) 	RESEARCH TOPIC Molecular biotechnology A CYCLIN-Ps Hub Orchestrating Organ Development and Physiological Adaptation to Environmental Stress
1	funded by Chiesi Farmaceutici S.p.A.	RESEARCH TOPIC Molecular biotechnology Molecular characterization of a preclinical model of lung diseases

RESERVED POSITIONS	
Industrial PhD reserved for employees of the company Istituto Zooprofilattico Sperimentale della Lombardia e dell'Emilia-Romagna IZSLER “Bruno Ubertini” (with salary maintained)	2



ADMISSION PROCEDURES

Assessment of QUALIFICATIONS: up to 40 points
(a minimum score of 18 points shall be required to be admitted to the Oral Exam)
ORAL EXAM: up to 80 points
Minimum score for ELIGIBILITY: 70/120

ORAL EXAM PROGRAM

The **ORAL EXAM WILL BE HELD IN PRESENCE** and with the possibility of carrying out the interview **REMOTELY** for candidates residing abroad or temporarily abroad for study / work reasons or with objective difficulties in reaching the exam location. To this end, candidates must submit a **motivated REQUEST** as per the model attached to the competition announcement)

The Oral Exam will focus on critical reading and discussion of a scientific article chosen by the candidate among those proposed by the Committee within the each of the three main research topics. Candidates will be asked by the Committee members to discuss and explain the contents of the scientific publication they have selected.

The choice of one or more of research topic must be indicated in the application form ANNEX A.

Foreign Language

the fluency of which shall be assessed during the Oral Exam

ENGLISH

The evaluation of the knowledge of this language will be oral and will consist in reading and translating of a scientific text or by taking the oral exam entirely in English.

SCHEDULE OF THE ADMISSION EXAMS

ASSESSMENT OF QUALIFICATIONS

Candidates are responsible for checking the results of the evaluation of their qualifications through their personal online account <https://unipr.esse3.cineca.it/Root.do> in the days preceding the date of the oral examination.

Publication on the website constitutes official notification. No individual communication will be sent to candidates by email.

ORAL EXAMINATION

DATE

2 September 2026 (with possible extension in the following day)

TIME

09:00 am (Italian Time)

PLACE

ROOMS A + B and nearby classrooms
PODERE AMBOLANA MORONI
Parco Area delle Scienze, 33/A - Campus Universitario
43124 PARMA - ITALY

ADDITIONAL INFORMATION

The choice of research AREA to be expressed in Appendix A is **MANDATORY** and determines the topic of discussion for the oral exam. Multiple restricted TOPICS within THE SAME AREA may be chosen; the choice can even be made on the day of the oral exam.

The choice of research area indicated in Annex A is **not binding** for the allocation of the PhD research topic, but serves to assess the candidate's competencies during the admission process.

The PhD research topic will be assigned by the **Academic Board**.

THE ORAL EXAMINATION MAY ALSO BE HELD IN ENGLISH

For foreign candidates it is possible to carry out the admission examination exclusively in English. For Italian candidates it will be possible to take the admission examination in Italian or in English at the candidate's choice



LIST OF DOCUMENTS TO BE SUBMITTED AND THEIR EVALUATION		
MANDATORY DOCUMENTS TO BE ATTACHED TO THE ONLINE APPLICATION		
Application form (ANNEX A)	(art. 3.2 of the Competition notice)	
Identity Document	Scan of a valid identity document with photo (i.e. identity card, passport)	
Curriculum Vitae et studiorum	No specific CV format is required (see art. 3.2 of the Competition notice)	
Abstract of degree thesis	Abstract of the second-cycle (Master's) degree thesis or, for applicants who have not yet graduated, of the draft thesis approved by the supervisor (max. approximately 10,000 characters including spaces, excluding bibliography)	
Academic Qualifications	Certificates and academic transcript of records for both Bachelor' and Master' degrees containing the following details for each degree held: (art. 3.2 of the Competition notice): University that granted the degree - Type of degree (first cycle/second cycle/single cycle) Name of the degree program - Date of graduation - Final mark - List of exams and corresponding scores (academic transcript of records) - Translation into Italian or English (only for degrees issued in languages other than Italian or English).	
LIST OF EVALUABLE QUALIFICATIONS		
(only qualifications written in Italian or English will be considered valid and evaluated by the Selection Committee)		
Curriculum Vitae et studiorum	Including academic career and postgraduate experience, accompanied by a statutory declaration in lieu of the certification of the exams passed with the relevant marks, as well as the final graduation mark. The marks of the exams and the graduation mark will be the most relevant element of the evaluation.	Up to 5 points
Graduation mark	Score related to the final mark: - 110 with honours (magna cum laude): 20 points; - 110: 18 points; - From 103 to 109: points 4-16 (2 points for each mark unit); - Until 102: 3 points.	Up to 20 points
Average of the exam marks (if the candidate will attain the degree no later than 31 October 2026)	Score related to the average of the exam marks: - 30/30: 18 points; - From 22/30 to 29/30: points 2-16 (2 points for each unit average score)	Up to 18 points
Graduation thesis	Consistency of the Master's Degree thesis with the doctoral program research topics (briefly describe the topics in the curriculum vitae)	Up to 6 points
Scientific Publications	Publications in indexed international journals (WOS, Scopus): 2 points for each publication (for evaluation purposes it is mandatory to attach a pdf copy of each publication to the application)	Up to 6 points
Communiations to conferences, publication in indexed national journals, book chapters	1 point for each conference abstract, publication in indexed national journals or book chapters (for evaluation purposes it is mandatory to attach a pdf copy of each term to the application)	Up to 3 points
Interview Program	Evaluation CRITERIA	POINTS
The ORAL EXAM is intended to assess the suitability of the applicant to pursue scientific research as well as the general knowledge of issues connected to the PhD course	The candidates will be summoned individually by the Examination Board to discuss the contents of the scientific publication they have selected from the proposals relating to the research topic. During this test, knowledge of the English language will also be assessed. The evaluation is based on the candidate's preparation and the critical sense demonstrated.	Up to 80 points