UNIVERSITÀ DI PARMA

DRUG SCIENCES	
CYCLE	**XLII**
COORDINATOR	Prof. Fabio SONVICO email: fabio.sonvico@unipr.it Food and Drug Department
DURATION	3 years
START DATE	01/11/2026
CURRICULA	1. Innovation in Pharmaceutical Sciences 2. Products for the food and health markets
POSITIONS AVAILABLE	**10**
ADMISSION PROCEDURES	Assessment of QUALIFICATIONS and RESEARCH PROJECT Oral Exam in PRESENCE
ADMISSION REQUIREMENTS	Regardless of age and citizenship, applicants may apply if they hold at least one of the following qualifications: • 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

The PhD programme in 'Pharmaceutical Sciences' aims to train PhD graduates with the necessary competences and skills to enter the field of research with a specific focus on the design, discovery, development, production and control of medicines and healthcare products, along with the understanding their mechanisms of action at the biomolecular level.
The programme includes teaching specifically tailored to PhD students, both within the disciplinary fields described above and in multidisciplinary and interdisciplinary areas. Multidisciplinarity and interdisciplinarity are key features of the PhD programme, which has the concrete objective of driving innovation in the field of pharmaceutical sciences from diverse perspectives and through varied approaches.
The PhD research projects, which culminate in the doctoral thesis, are supervised by experienced scientists who, in addition to guiding the PhD student's training, encourages them to achieve scientific objectives (publications, conference presentations) or technology transfer objectives (patents, licences).
As a rule, PhD students spend a training period of at least six months at prestigious foreign research institutions, supported by our University's membership of the ULLA consortium, which facilitates mobility towards high-profile institutions such as Uppsala University – Faculty of Pharmacy (Sweden), University College London – School of Pharmacy (United Kingdom), Leiden University – Leiden Academic Centre for Drug Research (the Netherlands), VU Amsterdam – Chemistry and Pharmaceutical Sciences (the Netherlands), University of Copenhagen – Drug Research Academy (Denmark), Université Paris-Saclay – Faculty of Pharmacy (France), KU Leuven – Faculty of Pharmaceutical Sciences (Belgium), University of Helsinki – Faculty of Pharmacy (Finland), Université de Genève – School of Pharmaceutical Sciences.

RESEARCH AREAS

The central theme that brings together the different disciplines and methodologies of the PhD Programme is the pharmaceutical research and development, which requires the training of PhD students capable of producing innovation and introducing new knowledge in the field of design, production and control of medicinal and health products, as well as their interactions with biological substrates.

In this context, the course is divided into five more specific areas in which the research activities of doctoral candidates can be realised, namely:

- Design and synthesis of biologically active compounds, in the fields of medicinal chemistry;
- Biopharmaceutics & pharmacokinetics, within the field of pharmaceutics;
- Experimental pharmacology and toxicology;
- Biochemistry and molecular biology;
- Bio-organic chemistry.

Position with Scholarship		
N°	***Funding entity***	***Research Topic***
2	University of Parma (Ministerial funds, University funds and Cariparma Foundation)	• Design and synthesis of biologically active compounds, in the fields of medicinal chemistry; • Experimental pharmacology and toxicology.

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 **Centre Biopharmanet TEC**	Cross-talk between iron and sulfur assimilation in *S. aureus* and *P. aeruginosa*: biochemical characterization of key proteins to uncover regulatory mechanisms and therapeutic targets.
1	Partially funded by University and Cariparma Foundation funds and co-funded by **Food and Drug Department**	Development of pressurized inhalation products using eco-friendly propellants
1	Partially funded by University and Cariparma Foundation funds and co-funded by the **Centre Biopharmanet TEC**	Production of recombinant α-galactosidases to remove ABO antigens during normothermic perfusion from organs intended for transplantation, to improve compatibility, quality and clinical availability.
1	Partially funded by University and Cariparma Foundation funds and co-funded by the **Centre Biopharmanet TEC**	Nasal delivery of biopharmaceuticals for the treatment of CNS diseases: preclinical models and mechanistic studies.
1	Partially funded by University and Cariparma Foundation funds and co-funded by the Company **Bioversys s.a.**	Synthesis of rifamycin analogues for the treatment of MDR Gram negative infections
1	Partially funded by University and Cariparma Foundation funds and co-funded by **Food and Drug Department**	Formulation strategies for the treatment of respiratory conditions
POSITION RESERVED		
Industrial PhD reserved for employees of the company Chiesi Farmaceutici S.p.A. (with salary maintained)		**2**

ADMISSION ASSESSMENT

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Assessment of QUALIFICATIONS: up to 50 points (a minimum score of 30 points shall be required to be admitted to the Oral Exam) **ORAL EXAM:** up to 70 points **Minimum score for ELIGIBILITY**: 70/120

ORAL EXAM PROGRAM		
THE ORAL EXAM TAKES PLACE IN THE PRESENCE.		
The ORAL EXAM includes the presentation of the research project and 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		
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 related to the research topics of the doctoral course.

SCHEDULE OF THE ADMISSION EXAMS			
ASSESSMENT OF QUALIFICATIONS		It is the candidate's responsibility to verify the outcome of the evaluation of qualifications, which can be consulted in their reserved area by connecting to the page http://unipr.esse3.cineca.it/Home.do in the days preceding the date of the Oral Exam. **Publication on the website constitutes official notification. No individual communication will be sent to candidates by email**.	
ORAL EXAM	**DATE**	1st September 2026	
	TIME	09.30 am (Italian Time)	
	PLACE	Aula B PHARMACY BUILDING Food and Drug Department Parco Area delle Scienze, 27/A 43124 PARMA - ITALY	
FURTHER INFORMATION		**The choice of the Research Topic to be expressed in Annex A is not binding on the assignment of the research project, and it is intended to assess candidates skills during the admission exam.** The PhD research topic will be assigned by the Academic Board.	
		THE INTERVIEW MAY BE HELD ALSO 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 QUALIFICATIONS TO BE SUBMITTED AND THEIR ASSESSMENT	
MANDATORY DOCUMENTS TO BE ATTACHED TO THE ON-LINE APPLICATION	
ANNEX A	(art. 3.2 of the Competition notice)
Identification Document	Scanned Copy 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. Undergraduate applicants must submit the draft of the thesis approved by their supervisor (abstract/draft of the thesis: 10.000 characters including spaces)	
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).	
Research Project	The research project shall consist of a maximum of 3 pages, be written in Italian or in English, focused on an original research topic and it shall be structured as follows: introduction of the problem in the scientific context, significance of the problem, expected results. In accordance with the **Guidelines for the responsible use of Artificial Intelligence in education and research**, the candidates must explicitly state whether they have used Generative Artificial Intelligence systems in the production of the research proposal attached to their application form, specifying which tools were used and for which parts of the document. **It should be noted that the Examination Board can use tools useful for verifying the originality of the submitted Project.** During the oral examination, the Admission Board will assess the candidate's full mastery of the content included in the document and their ability to justify the methodological and scientific choices made in the project. The research proposal **does not constitute a binding commitment** for the subsequent choice of the PhD research topic, which will be assigned by the Academic Board **Failure to submit the research proposal will result in exclusion from the selection procedure.**	
LIST OF EVALUABLE QUALIFICATIONS (only qualifications attested by documents in Italian or in English will be evaluated)		
Curriculum Vitae et studiorum	Including university career as well as post-graduate experiences (1st and 2nd level Master's degrees, advanced/specialization courses) accompanied by a self-certification of the exams taken and the related grades and the degree grade.	**Up to 10 points**
Graduation thesis	Congruence with the research topics of the PhD course and quality of the research methodology	**Up to 10 points**
Research Project	Points relating to the research project shall be allocated on the basis of the following criteria: ○ Scientific value and ground-breaking nature of the proposal: 5 points ○ description and structure of the proposal: 5 points ○ consistency with the themes of the doctorate: 5 points	**Up to 15 points**
Scientific Publications	Articles and/or reviews in scientific journals with peer reviewing, abstracts of papers or posters presented at conventions or meetings.	**Up to 5 points**
Other experiences (training, work, research, teaching, etc.)	– Research activity (basic, applied, translational, etc.) carried out in any capacity, including when covered by research grant, and as a staff member of research units – Working activity – Professional and/or training internship – Language proficiency certificates – Periods of study abroad, outside the country of origin (e.g. Erasmus programme or other similar mobility programmes) – Other qualifications attesting the suitability of the applicants (scholarships, awards, etc.)	**Up to 10 points**

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EVALUATION ORAL EXAM		
Interview Program	**Evaluation CRITERIA**	**POINTS**
The ORAL EXAM includes the presentation of the research project and 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	○ research project argumentation: max 30 points ○ general knowledge of scientific aspects related to the PhD course: max 30 points ○ knowledge of the foreign language: max 10 points	**Up to 70 points**