





DRUG SCIENCES	
CYCLE	XLI
COORDINATOR	Prof. Fabio SONVICO email: <a href="mailto:fabio.sonvico@unipr.it">fabio.sonvico@unipr.it</a> Food and Drug Department
DURATION	3 years
STARTING DATE OF THE PHD PROGRAM	01/11/2025
CURRICULA	1. Innovation in Pharmaceutical Sciences 2. Products for the food and health markets
POSITIONS PUT OUT TO COMPETITION	10
ADMISSION PROCEDURES	Assessment of QUALIFICATIONS and RESEARCH PROJECT Oral Exam in PRESENCE
ADMISSION REQUIREMENTS	Regardless of age and citizenship, applicants holding at least one of the following academic qualifications can apply for admission: <ul style="list-style-type: none"> <li>– Laurea specialistica or Laurea magistrale (second cycle Master's degree)</li> <li>– Laurea Vecchio Ordinamento (degree obtained under the previous Italian regulations);</li> <li>– Second cycle Master's degree obtained abroad, equivalent to the above-mentioned Italian degrees and recognized as suitable for the admission to doctoral program</li> </ul> Undergraduates can also apply for admission to the selection, with the obligation to obtain the degree <b>by 31.10.2025</b>
<b>TRAINING OBJECTIVES</b> <p>The aim of the 'Drug Sciences' course is to train PhD students with the knowledge and experience to enter the world of pharmaceutical R&amp;D with a specific focus at the design, discovery, development, production and control of medicinal and health products, and the understanding of their mechanisms of action at the biomolecular level.</p> <p>The PhD Course provides direct teaching to PhD students in the subject areas described above as well as in multidisciplinary and interdisciplinary areas. Multidisciplinary and interdisciplinary approaches are typical features of the doctoral programme, which approaches the ultimate practical goal (producing innovation in drug discovery and development) from different perspectives and with complementary approaches.</p> <p>The research programme leading to the doctoral thesis is overseen by a doctoral supervisor, who not only guides the doctoral student's training, but also encourages him/her to achieve scientific (publications) or technology transfer goals. Doctoral students usually spend a period of secondment at prestigious foreign research institutions. This is facilitated by membership of the ULLA consortium, which provides mobility opportunities to leading academic institutions in the pharmaceutical field 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.</p>	
<b>RESEARCH AREAS</b> <ul style="list-style-type: none"> <li>• Design and synthesis of biologically active compounds, in the fields of medicinal chemistry;</li> <li>• Biopharmaceutics &amp; pharmacokinetics, within the field of pharmaceutics;</li> <li>• Experimental pharmacology and toxicology;</li> <li>• Biochemistry, biophysics and molecular biology;</li> <li>• Bio-organic chemistry.</li> </ul>	



Position with Scholarship		
N°	Funding entity	Research Topic
3	Scholarship funded by University of Parma (Ministerial funds)	<ul style="list-style-type: none"> <li>Design and synthesis of biologically active compounds, in the fields of medicinal chemistry;</li> <li>Experimental pharmacology and toxicology;</li> <li>Bio-organic chemistry.</li> </ul>
1	Scholarship co-funded by Fondazione Cariparma	<ul style="list-style-type: none"> <li>Biopharmaceutics &amp; pharmacokinetics, within the field of pharmaceuticals</li> </ul>
Position with Scholarship LINKED TO SPECIFIC TOPICS (art. 6 of the Competition notice)		
N°	Funding entity	BOUND RESEARCH TOPIC
1	Scholarship funded by Chiesi Farmaceutici S.p.A.	Characterization and valorization of complex natural matrices for the generation of components with high pharmaceutical, nutritional and cosmetic value and design of advanced formulations capable of maximizing the effectiveness and reducing the environmental impact of the production, use and disposal of active ingredients
1	Scholarship partly financed with UNIVERSITY funds and co-financed by Food and Drug Department (funds Project PRIN 2022 PNRR -M4C2- "Dynamics of recruitment of macromolecular complexes active on the mycobacterial orisome: mechanistic details and target validation" CUP D53D23010750001)	Addressing antibacterial resistance through gene repressors and enzyme inhibitors of nonessential targets in Salmonella Typhimurium
1	Scholarship funded by EMILIA ROMAGNA REGION (PR.FSE + 2021/2027 – DGR n. 2111 del 04/12/2023) – CUP D92J24000010002 	Identification of natural products as gene repressors towards a new paradigm to fight antibacterial resistance
1	Scholarship funded by EMILIA ROMAGNA REGION (PR.FSE + 2021/2027 – DGR n. 344 del 10/03/2025) - CUP D92J25000110002 	Big data analysis and simulations for drug design and discovery

POSITION RESERVED	
Reserved for <b>EMPLOYEES</b> of Company "Chiesi Farmaceutici S.p.A." (with salary maintenance)	<b>2</b>
Reserved to <b>Holders of SCHOLARSHIP FUNDED BY FOREIGN STATES</b> (University of Texas at Houston U.S.A.)	<b>1</b>

ADMISSION PROCEDURES	
<b>Assessment of QUALIFICATIONS:</b> up to 50 points (a minimum score of 30 points shall be required to be admitted to the Oral Exam) <b>ORAL EXAM:</b> up to 70 points <b>Minimum score for ELIGIBILITY:</b> 70/120	
<b>ADMISSION PROCEDURES for positions reserved to holders of scholarship funded by foreign States</b>	<b>Assessment of QUALIFICATIONS:</b> up to 120 points  <b>Minimum score for ELIGIBILITY:</b> 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.

## 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

**ORAL EXAM**

**DATE**

2<sup>nd</sup> September 2025 (with possible extension in the following days)

**TIME**

09.30 am (Italian Time)

**PLACE**

Aula G – Plesso di Farmacia  
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	<p>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. It should be noted that the Examination Board can use tools useful for verifying the originality of the submitted Project.</p> <p><u>The research project does not represent a constraint with respect to the following choice of the doctoral thesis</u>, that shall be defined together with the supervisor and approved by the Academic Board.</p>	
LIST OF EVALUABLE QUALIFICATIONS (only qualifications attested by documents in Italian or in English will be evaluated)		
Curriculum Vitae et studiorum	<p>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.</p> <p>The marks of the exams and the graduation mark will be the most relevant element of the evaluation.</p>	Up to 20 points
Graduation thesis	Congruence with the research topics of the PhD course and quality of the research methodology	Up to 10 points
Research Project	<p>Points relating to the research project shall be allocated on the basis of the following criteria:</p> <ul style="list-style-type: none"><li>○ Scientific value and ground-breaking nature of the proposal: 5 points</li><li>○ description and structure of the proposal: 5 points</li><li>○ consistency with the themes of the doctorate: 5 points</li></ul>	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
LIST OF QUALIFICATIONS TO BE SUBMITTED AND THEIR ASSESSMENT Positions reserved to holders of scholarship funded by Foreign States		
Curriculum Vitae et studiorum	<p>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.</p> <p>The marks of the exams and the graduation mark will be the most relevant element of the evaluation.</p>	Up to 40 points
Graduation thesis	Congruence with the research topics of the PhD course and quality of the research methodology	Up to 30 points
Research Project	<p>Points relating to the research project shall be allocated on the basis of the following criteria:</p> <ul style="list-style-type: none"><li>○ Scientific value and ground-breaking nature of the proposal: 10 points</li><li>○ description and structure of the proposal: 10 points</li><li>○ consistency with the themes of the doctorate: 10 points</li></ul>	Up to 30 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 20 points



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	<ul style="list-style-type: none"><li>○ research project argumentation: max 30 points</li><li>○ general knowledge of scientific aspects related to the PhD course: max 30 points</li><li>○ knowledge of the foreign language: max 10 points</li></ul>	<b>Up to 70 points</b>