



MOLECULAR MEDICINE	
CYCLE	XXXIX
COORDINATOR	Prof. Prisco MIRANDOLA email: prisco.mirandola@unipr.it Department of Medicine and Surgery
DURATION	3 years
TRAINING OBJECTIVES	
The Research Doctorate Course in Molecular Medicine aims to provide PhD students with the cultural and methodological skills necessary to carry out high-profile research in different scientific disciplines in the biomedical field, integrated in an interdisciplinary perspective. The acquired training will allow PhDoctors in Molecular Medicine to employ themselves in high level research and development activities in Universities, research centers and industries engaged in the medical, biological and biotechnological sectors.)	
RESEARCH AREAS	
<ul style="list-style-type: none"> • Oral sciences with a specific interest in innovative diagnostic techniques (e.g. saliva evaluation) for dental, periodontal, oral mucosal and jawbone diseases) • Molecular mechanisms of tumor progression. • Cross-species translational development of a multimodal tumor microenvironment-/cancer cell-directed immunotherapeutic agent for sarcoma treatment • Oral microbiology • Theranostics in gastric cancer through immunotargeting of the CSPG4 cell surface proteoglycan • Inflammatory signaling in hematopoiesis: morphology, phenotype and molecular markers • New approaches to tissue regeneration in the oro-maxillofacial region, with emphasis on the hard and soft tissues of the oral cavity and peri-oral area. • Synthesis and characterization of three-dimensional composite and implantable biomaterials enriched with bioactive molecules • Telemedicine App able to connect all the Breast Unit specialists with the patient using smartphone, PC and tablet. • Growth, maturation, training load and risk of injury in young soccer players • Testing and evaluation of implantable surfaces regarding inflammatory cytokines release during implant integration. • Genetics of channelopathies 	
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"> – Laurea specialistica or Laurea magistrale (second cycle master's degree) – Laurea Vecchio Ordinamento (degree obtained under the previous Italian regulations); – Second cycle Master's degree obtained abroad, equivalent to the above mentioned Italian degrees and recognized as suitable for the admission to doctoral program Undergraduates can also apply for admission to the selection, with the obligation to obtain the degree by 31.10.2023

POSITIONS PUT OUT TO COMPETITION		12
With Scholarship		12
Position with Scholarship		
N°	<i>Funding entity</i>	<i>Research Topic, if any</i>
4	Scholarship funded by University of Parma (Ministerial funds)	1. Oral sciences with a specific interest in innovative diagnostic techniques (e.g. saliva evaluation) for



1	Scholarship co-funded by Fondazione Cariparma	<p>dental, periodontal, oral mucosal and jawbone diseases)</p> <ol style="list-style-type: none"> 2. Molecular mechanisms of tumor progression. 3. Cross-species translational development of a multimodal tumor microenvironment-/cancer cell-directed immunotherapeutic agent for sarcoma treatment 4. Oral microbiology 5. Inflammatory signaling in hematopoiesis: morphology, phenotype, and molecular markers
Position with Scholarship LINKED TO SPECIFIC TOPICS (art. 11 of the Competition notice)		
N°	<i>Funding entity</i>	<i>BOUND RESEARCH TOPIC</i>
1	Scholarship partly financed with UNIVERSITY funds and co-financed by the Department of Medicine and Surgery (Prof. Paolo Vescovi funds)	New approaches to tissue regeneration in the oro-maxillofacial region, with emphasis on the hard and soft tissues of the oral cavity and peri-oral area.
1	Scholarship partly financed with UNIVERSITY funds and co-financed by the Department of Medicine and Surgery (Prof. Guido Maria Macaluso Funds)	Synthesis and characterization of three-dimensional composite and implantable biomaterials enriched with bioactive molecules
1	Scholarship partly financed with UNIVERSITY funds and co-financed by COMT – Interdepartmental Center for Molecular and Translational Oncology	Theranostics in gastric cancer through immunotargeting of the CSPG4 cell surface proteoglycan
1	<p>Scholarship funded by EMILIA ROMAGNA REGION</p>  <p>The assignment of this scholarship is subject to the declaration of residence or domicile of the beneficiary in Emilia-Romagna</p>	Telemedicine App able to connect all the Breast Unit specialists with the patient using smartphone, PC and tablet
1	<p>Scholarship co-financed with funds under the PNRR - Mission 4 component 2 (Ministerial Decree 117/2023) and co-financed by the Company Parma Calcio 1913 S.r.l.</p> 	Growth, maturation, training load and risk of injury in young soccer players
1	<p>Scholarship co-financed with funds under the PNRR - Mission 4 component 2 (Ministerial Decree 117/2023) and co-financed by the Company Myplant Italia S.r.l.</p> 	Testing and evaluation of implantable surfaces regarding inflammatory cytokines release during implant integration.
1	<p>Scholarship co-financed with funds under the PNRR - Mission 4 component 2 (Ministerial Decree 117/2023) and co-financed by the Company BIOTRONIK Italia S.p.A.</p> 	Genetics of channelopathies



ADMISSION PROCEDURES		
<p>Assessment of QUALIFICATIONS: up to 60 points (a minimum score of 10 points shall be required to be admitted to the Oral Exam)</p> <p>ORAL EXAM: up to 60 points</p> <p>Minimum score for ELIGIBILITY: 70/120</p>		
Foreign Language	Language the fluency of which shall be assessed during the Oral Exam The evaluation of the knowledge of this language will be by an oral examination and will consist in translating of a scientific text.	ENGLISH
<p>ORAL EXAMINATION INDICATION</p> <p>THE ORAL EXAM TAKES PLACE IN THE PRESENCE. (*The REMOTE ORAL EXAM is allowed for candidates only in isolation / quarantine for COVID-19 virus infection or due to illness / hospitalisation certified by a medical report. To this end, candidates must submit a motivated REQUEST as per the model attached to the competition announcement)</p> <p style="text-align: center;">* Modified with the Rector Decree n. 1397 of 28.07.2023</p>		
THE INTERVIEW MAY BE HELD ALSO IN ENGLISH		
LIST OF QUALIFICATIONS TO BE SUBMITTED AND THEIR ASSESSMENT		
MANDATORY DOCUMENTS TO BE ATTACHED TO THE ON-LINE APPLICATION		
ANNEX A	(art. 5 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. 4 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	<p>Certificates and academic transcript of records for both Bachelor' and Master' degrees containing the following details for each degree held: (art. 4 of the Competition notice):</p> <p>University that granted the degree - Type of degree (first cycle/second cycle/single cycle)</p> <p>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).</p>	
Research Project	<p>Written in Italian or in English, according to the format attached to the competition notice</p> <p>It will have to focus on an original research topic (unpublished, developed personally by the candidate, PENALTY NOT EVALUATION. It should be noted that the Examination Board can use of IT tools useful for verifying the originality of the submitted Project)</p> <p><u>It does not represent a constraint with respect to the following choice of the doctoral thesis</u>, which will be assigned by the Academic Board</p>	
LIST OF EVALUABLE QUALIFICATIONS		
(only qualifications attested by a document drawn up in Italian or in English)		
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 (up to 10 points).</p> <p>It will also be evaluated the exam marks and the graduation mark (up to 5 points).</p> <p>Score related to the final mark:</p> <ul style="list-style-type: none"> - 110 with honours (magna cum laude): 5 points; - 110: 3 points; 	Up to 15 points



	<p>- From 100 to 109: 0,2 point for each mark unit</p> <p>Score related to the average of the exam marks (only for the candidate will attain the degree no later than 31 October 2023):</p> <ul style="list-style-type: none"> - > 28/30: 5 points - > 27/30: 3 points - > 25/30: 1 point 	
Graduation thesis	Consistency with the research themes of the PhD course and quality of the research methodology	Up to 7 points
Research Project	<p>Points relating to the research project:</p> <ul style="list-style-type: none"> ○ Scientific value and originality of the proposal: max 2.5 points ○ articulation of the proposal: max 2.5 points ○ proposal feasibility: max 2.5 points ○ consistency with the research themes of the PhD course: max 2.5 points 	Up to 10 points
Statement of Research Interest	Short text – maximum 2 pages – in Italian or in English, aimed at explaining the candidate's reasons to attend the PhD program and at describing her/his specific research interests	Up to 9 points
Scientific Publications	<p>Articles on national and international journals, papers presented at conferences or symposia, book chapters etc.</p> <p>Evaluation of the candidate's contribution and the editorial location of the product.</p>	Up to 9 points
Reference Letters	A maximum of 3 written by professors or researchers at the University of origin of the candidate or from other universities or from experts in the research areas working in public or private research facilities. The candidate must uploading them through the procedure of the competition online registration	Up to 3 points
Other Academic qualifications	First or second level Master's degree obtained in Italy and/or specialization degree in subjects consistent with the research topics of this PhD program	Up to 5 points
Other experiences (training, work, research, teaching, etc.)	<ul style="list-style-type: none"> – 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 2 points
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"> ○ knowledge of the foreign language: max 4 points ○ ability to argue the project proposal: max 28 points ○ knowledge of chosen topic: max 28 points 	Up to 60 points



SCHEDULE OF THE ADMISSION EXAMS

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	14 September 2023
	TIME	10:00 AM (Italian Time)
	PLACE	Department of Medicine and Surgery Integrated Biotechnological Plexus Via Volturno, 39 – 43125 PARMA - ITALY
ALTRE INDICAZIONI	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. <u>The PhD research topic will be assigned by the Academic Board.</u> For foreign candidates, the admission examinations may be held in English at the candidate's choice.	