



TRASLATIONAL MEDICAL AND SURGICAL SCIENCES

CYCLE	XXXVII
COORDINATOR	Prof. Nicola SVERZELLATI email: nicola.sverzellati@unipr.it Department of Medicine and Surgery
DURATION	3 anni
STARTING DATE OF THE PHD PROGRAM	01/11/2021
RESEARCH TOPICS (Applicant MUST indicate one research topic in the ANNEX A)	
<ol style="list-style-type: none">1. Stem cells in the diagnosis and treatment of neoplasms, chronic and degenerative disorders, cardiovascular diseases and musculoskeletal diseases;2. Translational medicine and immunologic dysregulation of gastrointestinal, respiratory, infective, haematological, oncological, endocrinological, nephrological and dermatological diseases, and of vasculitis;3. Plasticity, function and diagnostic-therapeutic use of genomic, transcriptomic, proteomic and metabolomic platforms of cells, organs and tissues to prevent or treat neoplasms, infections, chronic and degenerative diseases, metabolic dysfunctions, obstetrics and neonatal diseases as well as in response to environmental factors, lifestyles and drugs;4. Development and “theragnostic” function of imaging and technologically advanced phenotyping platforms to prevent or treat neoplasms, infections, chronic and degenerative diseases, metabolic dysfunctions, obstetrics and neonatal diseases as well as in response to environmental factors, lifestyles and drugs;5. Development and application of technologically advanced devices (i.e. biological devices), to measure and support and/or replace the function of cells, tissues or organs in medical and/or surgical diseases;6. Advanced and innovative strategies for recovery and functional rehabilitation to prevent or treat neoplasms, infections, chronic and degenerative diseases, metabolic dysfunctions, obstetrics and neonatal diseases as well as in response to environmental factors, lifestyles and drugs;7. Role of governance and organization of healthcare systems and services in the prevention and care of disorders with a potentially high social and economic impact, including, but not limited to, environmental and professional diseases;8. Role of microbiota and microbiome in translational medicine and surgery;9. Retrieval and role of “big data” in translational medicine and surgery;10. Role of advanced technologies, including robotics, in translational surgery11. Role of qualitative and quantitative imaging in the diagnosis of neoplasms, infections and chronic degenerative diseases	
TRAINING OBJECTIVES	
<p>The PhD Program in Translational Medical and Surgical Sciences is a multidisciplinary program, in which the common denominator of the various research activities conducted by the PhD students is represented by the application of the acquired knowledge to clinical practice. In fact, the close link between preclinical and clinical research will allow discoveries and methodological skills acquired through experimental studies to be transferred into medical practice. Such a link will enable PhD students to deal with real problems, ranging from diagnosis to therapy and from prevention to rehabilitation, all of which deeply connected with human diseases and patient care.</p> <p>The bidirectional exchange between lab and clinical research will bring back to the lab the results of clinical and epidemiological observations, and at the same time it will anchor experimental research to issues that originate from real-world inputs and tests carried out directly on humans.</p> <p>Therefore, the final goal of the PhD Program in Translational Medical and Surgical Sciences is to provide a highly qualifying training to the PhD students, offering them opportunities, skills and technological resources necessary to practice translational research at a high level in either public or private Institutions, national or international, including, but not limited to, Universities, Research Institutes and PharmaMed Industries.</p>	



ADMISSION REQUIREMENTS	<p>Regardless of age and citizenship, applicants holding at least one of the following academic qualifications can apply for admission:</p> <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 <p>Undergraduate applicants may also submit applications with the obligation of getting their degree by October 31st 2021.</p>
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POSITION PUT OUT TO COMPETITION* (Modified by Rector Decree n. 1550 of 02.09.2021)	11	With Scholarship	7
		Reserved to holders of Research Grant	1
		Reserved to holders of scholarship funded by foreign States	1
		Reserved to employees of companies having an "Industrial Doctorate" arrangement	2
Position with Scholarship			
N°	Funding entity		Research Topic, if any
3	Scholarship funded by University of Parma (Ministerial funds)		---
1	Scholarship funded by University of Parma (University funds)		---
1	Scholarship co-funded by Fondazione Cariparma		---
Position with Scholarship LINKED TO SPECIFIC TOPICS (art. 11 of the Competition notice)			
<p>During the Oral Exam, applicants may express and/or confirm their interest of being assigned a scholarship linked to a specific research topic. The Examination Board will evaluate their eligibility based on specific competences, experience and specific aptitudes of the applicants.</p>			
N°	Funding entity		BOUND RESEARCH TOPIC
1	Scholarship partly financed with UNIVERSITY funds and co-financed by the Department of Medicine and Surgery		- Pollution and exposome: searching for effect indicators
1	Scholarship funded by Chiesi Farmaceutici S.p.A.		- Development of translational PET/SPECT imaging biomarkers of fibrosis
Position reserved to HOLDERS OF RESEARCH GRANT			
N°	Subject area of the research		
1	Study of protective immune responses in HBV infection to develop novel immunomodulatory therapies and to identify predictive immunological parameters of response to therapy		
Position reserved to HOLDERS OF SCHOLARSHIP FUNDED BY FOREIGN COUNTRIES			
N°	Foreign Country/University		
1	Reserved to holders of Germany		
Position reserved for "INDUSTRIAL DOCTORATE" (according to art. 2 paragraph 2, lett. e) of Ministerial Decree n. 45/2013) (Modified by Rector Decree n. 1550 of 02.09.2021)			



N°	Company/Institution
1	Reserved to employees of Azienda Unità Sanitaria Locale of Piacenza on the research topic "Interprofessionality in health care"
1	Reserved to employees of Azienda Unità Sanitaria Locale of Piacenza on the research topic "Effect of probiotic supplementation on lipid profile in pediatric patients with familial hypercholesterolaemia on nutritional treatment "

ADMISSION PROCEDURES	ASSESSMENT of QUALIFICATIONS: up to 45 points ORAL EXAM: up to 75 points MINIMUM SCORE FOR ELIGIBILITY: 70/120	
ADMISSION PROCEDURES for positions reserved to holders of scholarship funded by foreign Countries	ASSESSMENT OF QUALIFICATIONS: up to 120 points MINIMUM SCORE FOR ELIGIBILITY: 70/120	
Foreign Language	Language fluency which shall be assessed during the Oral Exam: ENGLISH . The knowledge of the English language will be assessed orally and will consist in reading and translating a scientific text.	
APPLICANTS ADMITTED TO THE ORAL EXAM CAN TAKE IT EITHER IN PRESENCE OR REMOTELY IN AUDIO AND VIDEO TELECONFERENCE (Applicants who intend to take the Oral Exam remotely must submit a formal request, using the form attached to the competition notice)		
THE ORAL EXAM 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)	
Qualifications	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): 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, written in Italian or in English and consisting of a maximum of 3 pages, shall be focused on an original research topic (unpublished, developed personally by the applicant. It should be noted that the Examination Board can use IT tools to verify the originality of the submitted Project) and structured as follows: scientific context, significance of the problem, expected results.	



	The research project does not represent a constraint with respect to the following choice <u>of the doctoral thesis</u> , that shall be defined with the supervisor and approved by the Academic Board.	
FURTHER QUALIFICATIONS THAT MAY BE ATTACHED TO THE APPLICATION, IF IN POSSESSION OF THE APPLICANT (only qualifications attested by a document drawn up in Italian or in English)		
Statement of Research interest	Short text – maximum 1 page – in Italian or in English, aimed at explaining the applicant's reasons to attend the PhD program and at describing her/his specific research interests	
Scientific Publications	Articles and/or reviews published on peer-reviewed scientific journals, abstracts of papers or posters presented at conventions or meetings; book chapters, etc.	
Reference Letters	A maximum of 2 letters, written by Professors or Researchers from the applicant's University or from other Universities or from experts in the research field working in public or private research facilities. The reference letters must be produced on the letterhead of the University/Operating Unit/Structure of the Referee and attached to the online application by the applicant.	
Other Academic qualifications	First or second level Master's degree obtained in Italy and/or specialization degree in subjects related to the research topics of this PhD program.	
Other experiences (training, work, research, teaching, etc.)	<ul style="list-style-type: none"> – Research activities (basic, applied, translational, etc.) carried out in any way, including those covered by research grant, and conducted as a staff member of research units – Working activity – Activities at accredited laboratories – Professional and/or training internship – Language proficiency certificates – Periods of study abroad, outside the country of origin (e.g. Erasmus or similar programmes) – Other qualifications attesting the suitability of the applicants (scholarships, awards, etc.) 	
EVALUATION CRITERIA		
QUALIFICATION	EVALUTATION CRITERIA	POINTS
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.	Up to 9 points
Graduation mark	Score assignable to the final mark: - 110 with honours (magna cum laude): 5 points; - 110: 3 points; - From 106 to 109: 2 points; - From 102 to 105: 1 point.	Up to 5 points
Average of the exam marks (if the applicant will attain the degree no later than 31 October 2021)	Score assignable to the average of the exam marks: - 30/30: 5 points; - From 28/30 to 29/30: 3 points; - From 26/30 to 27/30: 2 points; - From 24/30 to 25/30: 1 point.	Up to 5 points
Graduation thesis	Congruence with the research topics of the PhD Program and quality of the research methodology	Up to 2 points



Research Project	Score assignable for the research project: <ul style="list-style-type: none"> ○ Scientific value and ground-breaking nature of the proposal: max 7 points ○ Description and structure of the proposal: max 2 points ○ Proposal feasibility: 1 point 	Up to 10 points
Statement of Research Interest		Up to 1 point
Scientific publications		Up to 9 points
Reference Letters		Up to 3 points
Other Academic qualifications	- Second level Master's degree and Specialization: 3 points - First level Master's degree and / or Advanced training and / or specialization and / or Higher Education course: 1 point	Up to 3 points
Other experiences		Up to 3 points
ORAL EXAM	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"> ○ Ability to argument the project proposal: up to 30 points ○ Discussion of the critical points of the project: up to 18 points ○ Ability to provide an adequate scientific context to the project proposal: up to 15 points ○ Ability to mitigate risks deriving from unexpected results: up to 10 points ○ Knowledge of the English language: up to 7 points 	Up to 75 points
LIST OF QUALIFICATIONS TO BE SUBMITTED AND THEIR ASSESSMENT Positions reserved to holders of scholarship funded by Foreign States		
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. No specific CV format is required	Up to 20 points
Degree thesis	It will be assessed the congruence with the research topics of the PhD Program and the quality of the research methodology	Up to 8 points
Research Project	The research project, written in Italian or in English and consisting of a maximum of 3 pages, shall be focused on an original research topic (unpublished, developed personally by the applicant. It should be noted that the Examination Board can use IT tools to verify the originality of the submitted Project) and structured as follows: scientific context, significance of the problem, expected results. <u>The research project does not represent a constraint with respect to the following choice of the doctoral thesis</u> , that shall be defined with the supervisor and approved by the Academic Board. Score assignable for the research project: <ul style="list-style-type: none"> ○ Scientific value and ground-breaking nature of the proposal: max 30 points ○ Description and structure of the proposal: max 20 points ○ Proposal feasibility: 10 point 	Up to 60 points



Statement of Research Interest	Short text – maximum 1 page – in Italian or in English, aimed at explaining the applicant’s reasons to attend the PhD program and at describing her/his specific research interests.	Up to 4 points
Scientific Publications	Articles and/or reviews published on peer-reviewed scientific journals, abstracts of papers or posters presented at conventions or meetings, book chapters, etc.	Up to 10 points
Reference Letters	A maximum of 2 letters, written by Professors or Researchers from the applicant’s University or from other Universities or from experts in the research areas working in public or private research facilities. The reference letters must be produced on the letterhead of the University/Operating Unit/Structure of the Referee and attached to the online application by the applicant.	Up to 6 points
Other Academic qualifications	University Masters, Postgraduate and/or Specialization Courses, etc. in subjects relating to the research topics of the PhD Program.	Up to 6 points
Other experiences (training, work, research, teaching, etc.)	<ul style="list-style-type: none"> – Research activities (basic, applied, translational, etc.) carried out in any way, including those covered by research grant, and conducted as a staff member of research units – Working activity – Activities at accredited laboratories – Professional and/or training internship – Language proficiency certificates – Periods of study abroad, outside the native country (e.g. Erasmus or similar programmes) – Other qualifications attesting the suitability of the applicants (scholarships, awards, etc.) 	Up to 6 points
SCHEDULE OF THE ADMISSION EXAMS		
ORAL EXAM	DATE	17 September 2021 (with possible extension to 20 September 2021)
	TIME	09:00 am (Italian time)
	PLACE	Department of Medicine and Surgery BUILDING 26 – INTERNAL MEDICINE CLASSROOM Via A. Gramsci, 14 43126 PARMA - ITALY
OTHER INFORMATION	For foreign applicants it will be possible to carry out the oral exam in English. For Italian applicants it will be possible to take it in either Italian or English.	