

CARDIO NEPHRO THORACIC SCIENCES

Section "PhD positions and scholarships" integrated on 04/06/2020

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Starting date of the PhD Programme	01/11/2020
Duration	3 calendar years
Language of the PhD Programme	Italian and English
Mandatory stay abroad	No
Curricula	Research topics
1. Cardiology/Cardiac Surgery	<ul style="list-style-type: none"> - Pulmonary Hypertension: Pharmacotherapy of induction - New perspectives in the treatment of acute and chronic ischemic heart disease - New approaches to percutaneous treatment of aortic and mitral valve disease - Personalized therapy, "genetic driven", of cardiomyopathies - New techniques of catheter ablation for the treatment of arrhythmias - Brain protection in aortic arch surgery - Myocardial protection in cardiac surgery - Heart transplantation. Aortic valve replacement with prosthesis <i>sutureless</i> - <i>Frozen elephant trunk technique</i> surgery for extensive diseases of the thoracic aorta - Decellularized scaffolds in pediatric cardiac surgery.
2. Nephrology/Urology	<ul style="list-style-type: none"> - Imaging in the diagnosis, staging and restaging of prostate cancer, evaluation of the role of new radiotracers for PET in identifying the presence of lymph node metastases using the histological gold standard diagnostic. - Assessing the role of PET in restaging of patients with recurrent disease and the main clinical indicators maybe related to a positive imaging. - Evaluation of the multiparametric MR in the local staging of disease prior to surgery and in patients in active surveillance for prostate cancer indolent. - Laparoscopy in urology oncology. - Application of laser technology for the treatment of benign prostatic hypertrophy (HoLEP). - Retrograde treatment of kidney stones through the use of flexible instruments (RIRS, retrograde intrarenalsurgery) and the technique combined antegrade-retrograde (ECIRS (endoscopiccombinedintrarenalsurgery)).
3. Pulmonary Diseases/Thoracic Surgery	<ul style="list-style-type: none"> - Technological innovations in the treatment of acute and chronic respiratory failure. - Physiopathological mechanisms of exacerbation of chronic respiratory disorders. - Home monitoring for chronic respiratory patients. - Prevention of the respiratory infections in critically ill patients. - Surgical therapy of experimental model of pulmonary hypertension. - Pathogenetic factors of fibrosis in the esophageal gastro-esophageal reflux disease. - Biomolecular characteristics of pathogenesis of esophageal adenocarcinoma. - The neuroendocrine tumors of the chest: from neuroepithelial bodies & Co. to disease. - The role of the genetic and biomolecular markers for a multidisciplinary tailored therapy. - The minimally-invasive diagnostic and therapeutic approach to lung cancer: between present time and future perspectives. - Study of pulmonary regeneration after pneumonectomy: experimental models and their applications. - Enhancing lung transplantation: ex-vivo lung perfusion and other techniques.

PhD positions and scholarships

Position n.	Financial support	Description	Positions linked to specific research topics
1	PhD Scholarship	Totally funded by the University of Bologna general budget	
2	PhD Scholarship	Totally funded by the University of Bologna general budget	

3	PhD Scholarship	Totally funded by the University of Bologna general budget	
4	PhD Scholarship	Totally funded by the University of Bologna general budget	
5	PhD Scholarship	Funded by the Department of Experimental, Diagnostic and Specialty Medicine and co-funded by Fondazione Fanti Melloni	Sudden death in young adult and coronary anomalies
6	PhD Scholarship	Funded by the Department of Experimental, Diagnostic and Specialty Medicine and co-funded by Fondazione Fanti Melloni	Compression of left main coronary artery in patients with pulmonary arterial hypertension
7	PhD Scholarship	Funded by the Department of Experimental, Diagnostic and Specialty Medicine and co-funded by Fondazione Fanti Melloni	Stress cardiac magnetic resonance in non obstructive myocardial infarction

Admission requirements

Please, see art. 2 of the Call for applications.

Mandatory documents to be attached to the application

Please, see art. 3 of the Call for applications.

Further qualifications that may be attached to the application, if in possession of the applicant (only qualifications attested by documents drawn up in Italian, English, French, German and Spanish shall be considered as valid and assessed by the Admission Board)

- Abstract of the second cycle master's degree thesis. Undergraduate applicants may submit the draft of the thesis approved by their supervisor (please, note that abstracts cannot exceed 5.000 characters, including spaces and formula possibly used. The above figure does not include: the title of thesis, the outline, and images such as graphs, diagrams, tables etc. - where present).
- Multi-annual research project, with special emphasis on the activities to be completed during the first-year course. The proposal must meet the following requirements:
 - o It must indicate in the cover page the Curriculum and/or the research topic of the PhD Programme covered by the research project proposal and for which the applicant is applying;
 - o It cannot exceed 20.000 characters, including spaces and formula possibly used. This figure does not include: the title of project, the outline, references and images (such as graphs, diagrams, tables etc. ... - where present);
 - o It must include: the state of the art; description of the project; expected results; lead-time for implementation; (proposed) criteria to be used to assess the findings obtained; references.

The research projects that successful applicants shall carry out during their doctoral career may possibly differ from the project proposed at the application stage. This shall be defined together with the supervisor and approved by the Academic Board.
- List of the publications (monographs, articles published on scientific journals).
- List of the minor publications (conference papers, volume's chapters, etc.).
- Professional Master courses completed in Italy (1st or 2nd level) relevant to the PhD Programme.
- Postgraduate vocational training programmes/specialisation programmes relevant to the PhD Programme + specialization thesis.
- Titles attesting the knowledge of foreign languages.
- Study periods completed by students outside their countries of origin (e.g. Erasmus programme or other similar mobility programmes).
- Other qualifications attesting the suitability of the applicants (scholarships, prizes, etc).

Admission exams (art. 4 of the call for applications)

Examination type	Schedule (please, note that applicants shall not receive any communication concerning the exams schedule)	Examination results publication (please, note that applicants shall not receive any communication concerning the publication of results)
Research project evaluation	Non-presential.	The results of the evaluation of the research project shall be available online starting from the 08/06/2020 at the page http://studenti.unibo.it (please, select "summary of the requests in progress" - "see detail" and open the pdf file "risultati valutazione progetto")

Oral examination	Date	26/06/2020 In case that the oral examination cannot be completed in one day due to the large number of applicants, the oral exam schedule shall be made available at the webpage http://studenti.unibo.it together with the results of the research project evaluation	The results of the oral examination shall be available on the webpage http://studenti.unibo.it starting from 01/07/2020 (please, select “summary of the requests in progress” - “see detail” and open the pdf file “risultati prova orale”)
	Time	10:00 a.m. (local time)	
Applicants shall take the exam remotely. For further details please refer to the relevant provision laid down in art. 4 of the Call for applications.			

Evaluation criteria

Points will be allocated to applications out of a total of 100 on the basis of the following weighting:

1. Research project

- Minimum for admission to the oral exam: 30 points
- Maximum: 50 points

Only qualifications relating to the last 5 calendar years prior to the calendar year of publication of the Call for applications shall be taken into consideration, with the exception of the University Degree (Diploma di laurea). Please, note that qualifications must be consistent with the PhD Programme.

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: max 20 points
- Description and structure of the proposal: max 15 points
- Proposal feasibility: max 15 points

2. Oral examination

- Minimum for inclusion in the final ranking list :30 points
- Maximum: 50 points

Oral examination includes the presentation of the research project and is intended to assess the aptitude of the applicant in respect of the pursuing of scientific research as well as the general knowledge of issues connected to the PhD Programme, with reference to the qualifications attached to the application.

The oral examination is carried out in Italian and English.

Points relating to the oral examination shall be allocated on the basis of the following criteria:

- Knowledge of English language: max 10 points
- Research project presentation: max 30 points
- General knowledge of issues connected to the PhD Programme: max 10 points

Possible evaluation sub-criteria will be available on the [Unibo website](#), selecting the relevant PhD Programme → “PhD programme information” at the bottom of the page in the section “Notices”.

Final ranking list and enrolment (arts.6 and 7 of the Call for applications)

After the publication of the results of the oral exam, the final ranking list will be available on the [Unibo website](#), selecting the relevant PhD Programme → “PhD programme information” at the bottom of the page in the section “Notices”.

Following the publication of the final ranking list, successful applicants must enroll on <http://studenti.unibo.it> by the deadline indicated on the [Unibo website](#), selecting the relevant PhD Programme → “PhD programme information”.