## **ONCOLOGY, HEMATOLOGY AND PATHOLOGY**

## Section "Positions and scholarships" integrated on 30/04/2020 Section "Positions and scholarships" integrated on 25/05/2020 Section "Positions and scholarships" integrated on 28/05/2020 Section "Positions and scholarships" modified on 10/06/2020

Coordinator	Prof. Manuela Ferracin Department of Experimental, Diagnostic and Specialty Medicine Via S.Giacomo 14 – Bologna <u>manuela.ferracin@unibo.it</u>
Starting date of the PhD Programme	01/11/2020
Duration	3 calendar years
Language of the PhD Programme	English and Italian
Mandatory stay abroad	Yes (3 months)
Research topics	

- Solid and hematological neoplasms.
- Immunoprevention and immunotherapy of tumors.
- Oncology, genomics, proteomics and targeted therapy of musculoskeletal sarcomas.
- Development of new therapies, biological and cellular therapies in pediatric onco-hematology (neuroblastoma, acute myeloid leukemia, leukemias and lymphomas of B cells).
- Radiotherapy, oncological radiodiagnostics, radiomics and radiobiology.
- Rare tumors.
- ERBB family receptors.
- Resistance to targeted therapies.
- Acute and chronic myeloproliferative syndromes.
- Lympho(immuno) proliferative diseases, monoclonal gammopathies and multiple myeloma.
- Molecular basis, genetic studies, and development of innovative and targeted drugs against adult oncohemopathies (acute and chronic leukemias, lymphomas and multiple myeloma).
- Molecular pathology of infections associated with implants: search of virulence factors of opportunistic microorganisms as etiologic agents of periprosthetic infections and pathogenic mechanisms.
- Plant toxins with N-glycosilase activity: mechanisms of cytotoxicity and immunotargeting.
- Alterations of protein glycosylation in pathological processes.
- Changes in ribosome biogenesis, cell proliferation and tumorigenesis.
- Immunology, genetics and epigenetics of aging, longevity and age-associated diseases.
- Allelic polymorphisms to identify risk factors associated with dementia and Alzheimer disease.
- Chronic pain.
- Omic data analysis.
- Genetic and epigenetic alterations as cancer diagnostic or prognostic biomarkers.
- Role of non-coding RNA in human cancer.
- Shiga toxin and hemolytic uremic syndrome.
- Human genomics and transcriptomics in normal conditions and in genetic disorders.
- Stem cells, differentiation and development.
- Nutrition, microbiota and cancer.

## PhD positions and scholarships

Position n.	Financial support	Description	Positions linked to research subjects
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	Totally funded by the University of Bologna general       budget	
6	PhD Scholarship	Totally funded by the University of Bologna general budget	
7	PhD Scholarship	Funded by the University of Bologna general budget and co-funded by the Department of Experimental, Diagnostic and Specialty Medicine	Clinical studies with innovative drugs, target therapies and cellular immunotherapy for adult oncohemopathies: chronic and acute leukemias, lymphomas and multiple myeloma New prognostic approaches and treatment strategies in eldely patients with acute myeloid leukemia
8	PhD Scholarship	Funded by Centro Interdipartimentale di Ricerca sul Cancro (CIRC)	Anthracycline cardiotoxicity monitoring in cancer patients by tissue Doppler immaging
9	PhD Scholarship	Funded by Centro Interdipartimentale di Ricerca sul Cancro (CIRC)Molecular and genetic characterization of primary boi sarcomas	
9	PhD position without scholarship		
10	PhD position without scholarship		
11	PhD position without scholarship		
12	PhD position without scholarship		
13	PhD position without scholarship		
14	PhD position without scholarship		
15	Research Grant	Provided by the Department of Experimental, Diagnostic and Specialty Medicine with funds made available by the project CON03ARDI – SPONCOARD (Prof. Andrea Ardizzoni), with a duration of 12 months, renewable up to 36 months, and a gross percipient amount of 24.445,99 €.	
16	Inter-sectoral doctorate	Position reserved for employees of the Istituto Scientifico Romagnolo per lo Studio e la Cura dei Tumori (IRST) S.r.I., IRCCS	
17	Inter-sectoral doctorate	Position reserved for employees of the Istituto Scientifico Romagnolo per lo Studio e la Cura dei Tumori (IRST) S.r.I., IRCCS	
18	Inter-sectoral doctorate	Position reserved for employees of the Istituto Scientifico Romagnolo per lo Studio e la Cura dei Tumori (IRST) S.r.I., IRCCS	
19	Inter-sectoral doctorate	Position reserved for employees of the Istituto Scientifico Romagnolo per lo Studio e la Cura dei Tumori (IRST) S.r.I., IRCCS	
20	Inter-sectoral doctorate	Position reserved for employees of the Istituto Scientifico Romagnolo per lo Studio e la Cura dei Tumori (IRST) S.r.I., IRCCS	

21	Inter-sectoral doctorate	Position reserved for employees of the Istituto Scientifico Romagnolo per lo Studio e la Cura dei Tumori (IRST) S.r.I., IRCCS	
22	Inter-sectoral doctorate	Position reserved for employees of the Istituto Scientifico Romagnolo per lo Studio e la Cura dei Tumori (IRST) S.r.I., IRCCS	
23	Inter-sectoral doctorate	Position reserved for employees of the Istituto Scientifico Romagnolo per lo Studio e la Cura dei Tumori (IRST) S.r.I., IRCCS	
24	Inter-sectoral doctorate	Position reserved for employees of the Istituto Scientifico Romagnolo per lo Studio e la Cura dei Tumori (IRST) S.r.I., IRCCS	
25	Inter-sectoral doctorate	Position reserved for employees of the Istituto Scientifico Romagnolo per lo Studio e la Cura dei Tumori (IRST) S.r.I., IRCCS	
26	Inter-sectoral doctorate	Position reserved for employees of the Azienda Provinciale per i Servizi Sanitari della Provincia Autonoma di Trento (ASSP)	
<del>28</del>	Industrial doctorate	Position reserved for employees LINICAL Spain S.L.U.	
28	Research Grant	Provided by the Department of Medical and Surgical Sciences with funds made available by the Project AIRC_21723_RICCIARDIELLO_2020 (Vincolo n. 11741/2020 – Ref. Prof. Luigi Ricciardiello). The research grant will have a duration of 12 months, renewable up to 36 months, and a gross percipient amount of € 19.367,37.	
29	PhD position without scholarship		
30	PhD Scholarship	Funded by Fondazione Carisbo	

**Positions linked to specific research subjects:** during the oral exam, applicants may express their interest in one or more positions linked to specific research subjects. Considering the expressions of interest above, the Admission Board shall express its view on the suitability of the interested applicants, taking into account their specific skills, experience and aptitude.

**Positions without scholarship:** within the time limits indicated at the bottom of the final ranking list, eligible applicants who did not succeeded in the selection procedure may express their interest in a position without scholarship, should the latter become available.

## 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).
- At least one and no more than 2 reference letters signed by Italian and international academics and professionals in the research field, which do not form part of the Admission Board, attesting the suitability of the applicant and his/her interest for the scientific research.
- Please, note that the above letters cannot be uploaded by applicants. When filling the online application form on <u>http://studenti.unibo.it, applicants will only be allowed to provide the email accounts of the requested</u> <u>academic/professional. The latter shall receive an email from the University of Bologna providing for the instructions for</u> <u>uploading. Only letters in pdf format submitted before the expiry date and time of the Call shall be accepted.</u>
- List of the publications (monographs, articles published on scientific journals, volume's chapters).
- List of the minor publications (conference papers, etc.).
- List of the abstracts and posters presented during national and international conferences, etc.

Admission exams (art. 4	Admission exams (art. 4 of the call for applications)			
Examination type	Schedule (please, note that applicants shall not		<b>Examination results publication</b> (please, note that applicants shall not receive any communication concerning the publication of results)	
Evaluation of the qualifications	Non-presential.		The results of the evaluation of qualifications shall be available online starting from the <b>05/06/2020</b> at the page http://studenti.unibo.it (please, select: (please, select "summary of the requests in progress" - "see detail" and open the pdf file "risultati valutazione titoli")	
Oral examination	Date	the oral exam schedule shall be made available at the webpage http://studenti.unibo.it together with the results of the evaluation of qualifications	The results of the oral examination shall be available on the webpage <u>http://studenti.unibo.it</u> starting from <b>29/06/2020</b> (please, select "summary of the requests in progress" - "see detail" and open the pdf file "risultati prova orale")	
	Time	9:30 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				
<ul> <li>Points will be allocated to applications out of a total of 100 on the basis of the following weighting:</li> <li>Qualifications <ul> <li>Minimum for admission to the oral exam: 30 points</li> <li>Maximum: 50 points</li> </ul> </li> <li>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.</li> <li>Points relating to qualifications shall be allocated on the basis of the following criteria: <ul> <li>Weighted Average Mark referred to the University studies: max 30 points</li> <li>Publications: max 5 points</li> <li>Coherence between the master's degree thesis and the topics covered by the PhD programme. For undergraduate applicants such an evaluation shall be carried out on the basis of the thesis abstract: max 10 points</li> <li>Reference letters: max 5 points</li> </ul> </li> </ul>				
2. Oral examination				
<ul> <li>Minimum for inclusion in the final ranking list: 30 points</li> <li>Maximum: 50 points</li> <li>Oral examination is intended to assess the suitability of the applicant in respect of the pursuing of scientific research as well as the general knowledge of issues connected to the PhD Programme. The oral examination is carried out in Italian and English. Non-Italian applicants may ask to conduct the exam only in English.</li> <li>Points relating to the oral examination shall be allocated on the basis of the following criteria:</li> <li>knowledge of the English language: max 10 points</li> <li>general knowledge of issues connected to the PhD Programme: max 40 points</li> </ul>				
Possible evaluation sub-criteria will be available on the <u>Unibo website</u> , selecting the relevant PhD Programme $\rightarrow$ "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 <u>Unibo website</u>, selecting the relevant PhD Programme  $\rightarrow$  "PhD programme information" at the bottom of the page in the section "Notices". Following the publication of the final ranking list, successful applicants must enrol on <u>http://studenti.unibo.it</u> by the deadline indicated on the <u>Unibo website</u>, selecting the relevant PhD Programme  $\rightarrow$  "PhD programme information".