

PhD Programme Table - 38th cycle
NRRP “National Recovery and Resilience Plan” Call for Applications



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NextGenerationEU



ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA

Section “Available Positions and Scholarships” integrated on 13/07/2022

Section “Available Positions and Scholarships” integrated on 19/07/2022

PROGRAMME’S NAME	ONCOLOGY, HEMATOLOGY AND PATHOLOGY
DURATION	3 years
PROGRAMME START DATE	01/11/2022 (DD/MM/YYYY)
LANGUAGES	Italian, English
COORDINATOR	Prof. Manuela Ferracin (manuela.ferracin@unibo.it)
RESEARCH TOPICS	Detailed list at the bottom of the present document
PhD POSITIONS	6
ADMISSION PROCEDURE	Qualifications evaluation Oral examination

Available Positions and Scholarships

Pos. n.	Financial Support	Description	Positions linked to research topics
1	PhD Scholarship Ex M.D. 351/2022 - NRRP Research	Funded by the EU - NextGenerationEU with funds made available by the National Recovery and Resilience Plan (NRRP) Mission 4, Component 1, Investment 4.1 (MD 351/2022) – NRRP Research	Implementation of techniques for histological slide digitalization in oncology
2	PhD Scholarship Ex M.D. 351/2022 - NRRP Research	Funded by the EU - NextGenerationEU with funds made available by the National Recovery and Resilience Plan (NRRP) Mission 4, Component 1, Investment 4.1 (MD 351/2022) – NRRP Research	Circulating tumor cells and extracellular vesicles in precision oncology
3	PhD Scholarship Ex M.D. 352/2022	Funded by the EU - NextGenerationEU with funds made available by the National Recovery and Resilience Plan (NRRP) Mission 4, Component 2, Investment 3.3 (MD 352/2022) and by Istituto ortopedico Rizzoli di Bologna	Genetics of sarcomas characterized by fusion products
4	PhD Scholarship Ex M.D. 352/2022	Funded by the EU - NextGenerationEU with funds made available by the National Recovery and Resilience Plan (NRRP) Mission 4, Component 2, Investment 3.3 (MD 352/2022) and by Istituto Romagnolo per lo studio dei tumori “Dino Amadori”	Immunology of hematological diseases
5	PhD Scholarship Ex M.D. 352/2022	Funded by the EU - NextGenerationEU with funds made available by the National Recovery and Resilience Plan (NRRP) Mission 4, Component 2, Investment 3.3 (MD 352/2022) and by Istituto	Integrated tools for prediction of treatment response in pancreatic cancer

		Romagnolo per la studio dei tumori “Dino Amadori”	
6	PhD position without scholarship		Wireless dielectric elastomer actuator for treatment of neuromuscular defects in orthopedic cancer patients

Applicants awarded with Ex M.D. 351/2022 or Ex M.D. 352/2022 PhD scholarships shall have specific obligations (i.e. mandatory research periods abroad and/or in a firm) during their PhD programme. For detailed information, refer to the Call for Applications, articles 1.2 and 1.3, and to the text of the law. For any other eventual PhD positions, a 3-month research period abroad is mandatory.

Admission Exams

The admission exams detailed schedule shall be published **starting from July 12th, 2022:**

- on the [University website](#), selecting the relevant PhD Programme > “More information”, at the bottom of the page in the section “Notices”;
- on [Studenti Online](#) (select “summary of the requests in progress” > “see detail” and open the .pdf file at the bottom of the page). **No personal written communication will be sent to applicants.**

Required and Supporting Documents to be attached to the application

All the documents listed below **shall be drawn up in English or in Italian.** In case of documents originally issued in any other language (e.g. identity document, qualifications), an official translation is required.

Only qualifications obtained **during the last 5 calendar years** shall be taken into consideration, except for the University Degree. The Admission Board will assess the relevance of the supporting documents to the PhD Programme.

REQUIRED DOCUMENTS	
Identity document	Valid identity document with photo (i.e. identity card, passport)
Curriculum Vitae	No specific CV format is required
Degrees	Documents attesting the awarding of the first and second cycle degrees, the exams taken and the marks obtained (see Art. 3 of the Call for Applications). Please, upload together with the second-cycle degree certificate, the Attachment 1 form, duly filled, including the weighted average of the exam marks (WAM).
SUPPORTING DOCUMENTS	
Research Proposal	Multi-annual research proposal on one of the available research topics (see “Available Positions and Scholarships” table). The proposal must meet the following requirements: <ul style="list-style-type: none"> - it cannot exceed 15,000 characters, including spaces and formula possibly used. This figure does not include: the title of proposal, the outline, references and images (such as graphs, diagrams, tables, etc. - if present); - it must include: the state of the art; description of the proposal; expected results; articulation of the proposal and implementation times; references. Attention: applicants are kindly invited to upload their research proposal in the section “Attachments” > “Other Documents” in their application on Studenti Online.
Thesis abstract	Abstract of the second cycle degree thesis . Graduated applicants may submit the draft of the thesis. Abstracts cannot exceed 5,000 characters, including spaces and formula possibly used. The above figure does not include: the title of the thesis, the outline, references, and images such as graphs, diagrams, tables etc.
Reference letter/s	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 in the scientific research. Letters shall be drawn up according to the attached form n.2 (the same form can be downloaded in .docx from the University website , selecting the relevant PhD Programme > “More information”, section “Notices” at the bottom of the page) and shall be uploaded following the procedure detailed in the Call for Applications (Art. 3.2).

Personal Statement	The statement shall include the reasons prompting the applicant to attend the PhD Programme and those relevant experiences and research interests , that make the applicant suitable for the specific PhD Programme (3000 characters maximum, including spaces).
Publications	Lists of publications (i.e. monographs, articles on scientific journals), minor publications (conference papers, etc.), abstracts and posters presented during national and international conferences, etc.
Other documents	Documents attesting the applicant's foreign languages proficiency

Evaluation criteria*

Scores will be expressed in points out of 100, as follows.

1. Qualifications evaluation

Minimum score for admission to the oral examination: 30 points, Maximum score: 50 points

Weighted Average Mark (WAM) referred to academic programmes (first and second cycle)	25 points max
Publications	7 points max
Consistency of the master's degree thesis - for graduands thesis draft - with the topics covered by the PhD programme	10 points max
Reference letter/s	5 points max
Personal statement	3 points max

2. Oral examination

Minimum score for eligibility: 30 points, Maximum score 50 points

English language proficiency	10 points max
General knowledge of issues encompassed by the PhD Programme	20 points max
Research proposal presentation	20 points max

Oral examination aims to assess the suitability of the applicant for scientific research as well as the general knowledge of issues encompassed by the PhD Programme (see the list of [research topics](#) at the bottom of the present document).

During the oral examination, the applicant's English proficiency shall be assessed.

The oral examination is carried out in Italian or English.

* Possible further evaluation criteria will be available on the [University website](#), selecting the relevant PhD Programme > "More information".

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 onco-hemopathies (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
- Cytotoxic mechanisms of plant toxic enzymes and development of immunotargeting for experimental therapy in oncology and transplant rejection
- 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
- Asbestos and cancer
- Chemo-immune therapy toxicity control

ATTACHMENT N. 1

REQUIRED INFORMATION

(to be attached to the second level degree's certificate)

Surname _____ Name _____ Date of birth _____

EDUCATION

Bachelor's Degree (or equivalent first cycle degree)

Programme's name: _____

Programme's type (es. Bachelor's degree, ...): _____

Awarding institution: _____

Degree final mark: _____ (Highest possible mark: _____)

Master's Degree or Single cycle degree (or equivalent second cycle degree)

Programme's name: _____

Programme's type (es. Master's degree, ...): _____

Awarding institution: _____

Degree final mark: _____ (Highest possible mark: _____)

(except for graduands)

WEIGHTED AVERAGE MARK (WAM): _____

Please, consider marks obtained during the whole university career

(i.e. Exams passed during the First cycle programme + exams passed during the Second cycle programme
OR Exams passed during the Single-cycle programme)

only for applicants submitting degrees awarded by Italian Higher Education Institutions

To calculate the **media ponderata** (weighted average mark):

1. Multiply the marks obtained by the number of CFUs (please, note that "30 e lode" is regarded as 30);
2. Add up all the obtained results;
3. Divide the result by the total of the CFUs;
4. Multiply the obtained average by 110 and then divide by 30.

Riferimento del Candidato/a e del Referente Applicant and Referee details			
Nome del Candidato <i>Name of Applicant</i>			
Corso di Dottorato per cui ha presentato domanda <i>PhD Course for which the applicant has applied</i>			
Nome del Referente <i>Name of Referee</i>		Titolo Title	
Affiliazione <i>Institution /Organisation</i>			
Email			
Phone			

Reference for graduate application						
<i>Il Coordinatore del Corso di Dottorato apprezzerrebbe una sua valutazione del candidato</i> <i>The Coordinator of the PhD Course will appreciate your evaluation of the applicant's capacity.</i>						
Per quanto tempo ha supervisionato il Candidato/a <i>How long have you known the applicant?</i>						
In quale veste ha conosciuto il candidato <i>In what capacity have you known the applicant?</i>						
Per favore, valuti il Candidato confrontandolo con altri studenti da lei supervisionati (laureandi dal vostro istituto o attuali studenti senior presso l'istituto): <i>Please rate the applicant in comparison with other students known to you (either undergraduates from your institution or current senior students at your institute):</i>						
ATTITUDINE ALLA RICERCA/RESEARCH SKILLS	Top 2%	Top 5%	Top 10%	Top 25 %	Top 50 %	Bottom 50%
Potenziale Accademico / Academic potential						
Capacità di ragionare in modo indipendente: creatività, curiosità, fiducia nelle proprie idee <i>Intellectual independence: creativity, curiosity, self-confidence</i>						
Capacità di giudizio: capacità di valutare una problematica, consapevolezza, determinazione <i>Capacity for analytical thinking: ability to analyse a problem, consciousness and determination.</i>						
Attitudini alla ricerca: capacità pratiche e di comunicazione <i>Research skills: bench work, scientific communication</i>						
Motivazione / Motivation for graduate study						
SOCIALE/SOCIAL	Top 2%	Top 5%	Top 10%	Top 25%	Top 50%	Bottom 50%
Maturità / Maturity						
Affidabilità: senso di responsabilità <i>Reliability: dependability and responsibility</i>						
Capacità di lavorare in gruppo <i>Ability to work with others</i>						
Note: Non compilare se impossibilitati ad esprimere un giudizio <i>Note: leave blank if unable to assess</i>						

Firma/Signature:

Data / Date:

Per favore, scriva un giudizio sul Candidato/a e sull'esperienza nell'ambito della ricerca (se preferisce può scrivere una lettera su carta intestata e allegarla al presente modulo)
Please write an assessment of the Candidate and his/her research activity (you may write a separate letter and attach it to this form):

Firma/Signature:

Data / Date:

La ringraziamo per la sua valutazione

Thank you for completing this evaluation.

Per favore, inviare la valutazione entro il..

Please return this form within ...

La valutazione deve essere caricata sul sito tramite il link ricevuto via email.

You must upload the reference letter on the website through the link received in the email