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







Section "Available Positions and Scholarships" integrated on 19/07/2022				
PROGRAMME'S NAME	INNOVATIVE TECHNOLOGIES AND SUSTAINABLE USE OF MEDITERRANEAN SEA FISHERY AND BIOLOGICAL RESOURCES (FISHMED-PHD)			
ASSOCIATED PARTNERS Pursuant to art. 3 para 2 lett. b) of the MD n. 226/2021	Consiglio Nazionale delle Ricerche – CNR			
DURATION	3 years			
PROGRAMME START DATE	01/11/2022 (DD/MM/YYYY)			
LANGUAGES	Italian, English			
COORDINATOR	Prof. Stefano Goffredo (s.goffredo@unibo.it)			
RESEARCH TOPICS	Detailed list at the bottom of the present document			
PhD POSITIONS	2			
ADMISSION PROCEDURE	Qualifications and research proposal 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	Biodegradability and impact on microbial biodiversity of bioplastics in the marine environment
2	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 Trinovation Italy Srl	Development of microbiome-based bioprocesses for textile industry

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 <u>University website</u>, selecting the relevant PhD Programme > "More information", at the bottom of the page in the section "Notices";

on <u>Studenti Online</u> (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)				
SUPPORTING DOCUI	SUPPORTING DOCUMENTS				
Research proposal	 Multi-annual research proposal, with special emphasis on the activities to be completed during the first-year course. The proposal must meet the following requirements: it must mention on the cover page the main research area and topics the applicant is interested to and the proposal is about; it cannot exceed 20,000 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. 				
Thesis abstract	Abstract of the second cycle degree thesis. Graduands 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 or 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 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	 Full text publications (i.e. monographs, articles on scientific journals) – max n. 5 Full text minor publications (conference papers, etc.) – max n. 5 Full text abstracts and posters presented during national and international conferences, etc. – max n. 5 				
Other documents	 Postgraduate vocational training programmes relevant to the PhD Programme main research topics Research activity of any kind - whether basic, applied, translational, etc carried out in any capacity, including when covered by research grants, and as a staff member of research projects Work activity Curricular or non-curricular professional internships Documents attesting the applicant's foreign languages proficiency Periods of study abroad, completed by applicants 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.) 				

Evaluation criteria*

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

1. Qualifications and research proposal evaluation

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

Qualifications evaluation	First (Bachelor's) and second cycle (Master's) degree final mark. Graduands shall be evaluated according to the Weighted Average Mark (WAM)	15 points max
	Publications	10 points max
	Personal statement	6 points max
	Reference letter/s and other evaluable documents	4 points max
Research proposal evaluation	Scientific value and ground-breaking nature of the proposal	9 points max
	Structure of the proposal	3 points max
	Proposal feasibility	3 points max

2. Oral examination

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

English language proficiency	5 points max
Research proposal presentation	35 points max
General knowledge of issues encompassed by the PhD Programme	10 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 <u>research topics</u> at the bottom of the present document). During the oral examination, the applicant's English language proficiency shall be assessed.

Research Topics

- Marine microbial metagenomes: study of microbial metagenomes from marine organisms (holobionts) and environments as indicators of ecosystems and organism health and functionalities
- Marine environment: relationship between environment and organisms; autecology and synecology, biological cycles of the species being harvested, and food webs
- Modeling gene regulation, biomineralization, growth, and population dynamics in marine calcifiers and fish species
- Genomic methods and life history traits as tools for fisheries management
- Fishery stock assessment methods
- Fishing innovative techniques and Technologies
- Marine microbial food webs, and food security

The oral examination is carried out in English.

- Influence of contaminants (chemical and microbiological) on reproductive cycles, on food quality and on human biodiversity
- Bioremediation of impacted marine ecosystems (surface and subsurface water and sediments)
- Aquaculture, restocking and relative environmental impact
- Human genetic and epigenetic variability of genes involved in lipid metabolic and pollutant detoxification pathways in Italy and the Mediterranean area: a focus on nutrition and health
- Natural resources and environmental economics
- Evaluation of natural resources and ecosystem services
- Protection of the environment and resources: legal bases, organizational, and innovative elements and tools for ecosystem-based fishery management
- Community legislation on fisheries, national rules in the Mediterranean countries and EUSAIR
- International Fisheries Organizations operating in the Mediterranean: objectives and functioning
- Sustainable exploitation of marine bio-resources (microbes, biomass and fish processing by-products and wastes)
- Citizen Science: communication, volunteer involvement, spatial and temporal large-scale monitoring, dissemination, environmental education

^{*} Possible further evaluation criteria will be available on the <u>University website</u>, selecting the relevant PhD Programme > "More information".