



Finanziato dall'Unione europea  
NextGenerationEU



UNIVERSITÀ  
degli STUDI  
di CATANIA



FONDAZIONE  
INF-ACT

**Ph.D. Course Information Sheet**  
**40<sup>th</sup> cycle - A.Y. 2024/2025**

NAME OF PH.D. COURSE	<b>BASIC AND APPLIED BIOMEDICAL SCIENCES</b>
DURATION	3 YEARS
START DATE	October 1° 2024
LANGUAGE(S)	Italian, English
COORDINATOR	Prof. Stefania Stefani
PLACES IN THE PH.D. COURSE	13
SELECTION PROCEDURE	Evaluation of qualifications and research project; oral examination

**Places and scholarships**

Number of Scholarships	Financial support	Research topic associated to the scholarship (if any)
<b>3</b>	Funds of the University of Catania	
<b>1</b>	University NRRP Project Anthem – Spoke 4	Research activities related to the evaluation of the effects of liposomal sonoporation for targeted drug delivery in the treatment of tumors, with particular attention to understanding how sonoporation influences cell signaling and metabolic pathways to improve therapeutic outcomes.
<b>1</b>	University NRRP Project Infact – Spoke 1	Research activity in the development of new diagnostic technologies in emerging microbial infections and metabolic interactions with the host
<b>1</b>	University NRRP Project Infact – Spoke 3	Evaluation of the mechanisms responsible for the development of antimicrobial resistance in human pathogenic microorganisms
<b>2</b>	University NRRP Project Onfoods – Spoke 5	Research activity in the field of human nutrition, with specific reference to the dietary assessment of patients suffering from cardiovascular and chronic-degenerative diseases, collection of biological samples, compilation of databases, analysis of data on the relationship between dietary intake, pathology markers, metabolites and markers of inflammation
<b>1</b>	NRRP M.D. n. 630/2024 in collaboration with Contraria Biotech srl	Ricerca di soluzioni profilattiche e/o terapeutiche per contrastare l'antibiotico-resistenza in quanto priorità di salute pubblica a livello globale Search for prophylactic and/or therapeutic solutions to combat antibiotic resistance as a global public health priority



Finanziato dall'Unione europea  
NextGenerationEU



Italiadomani  
PILLOLE NAZIONALI DI PROSPETTIVA E INFLUENZA



UNIVERSITÀ  
degli STUDI  
di CATANIA



FONDAZIONE  
INF-ACT

1	NRRP M.D. n. 630/2024 in collaboration with ST LAB SRL	Sviluppo di un piattaforma hardware/software per l'analisi di cellule tumorali in biopsie liquid <i>Development of a hardware/software platform for the analysis of tumor cells in liquid biopsies</i>
1	NRRP M.D. n. 630/2024 in collaboration with ENBIOTECH SRL	Sviluppo di un sistema analitico portatile per il self-testing di biomarkers del muscolo cardiaco <i>Development of a portable analytical system for self-testing of cardiac muscle biomarkers</i>
1	NRRP M.D. n. 630/2024 in collaboration with DREAMODS SRL	<i>Impacts of Vaping Liquid and Electronic Cigarettes on Hematopoiesis and Megakaryocyte Differentiation in Patients with Polycythemia Vera</i>

**One place without scholarship** is available in addition to the places with scholarship reported in the table above

## Selection Procedure

	MODALITY	PUBLICATION OF THE RESULTS ON THE UNIVERSITY'S WEBSITE
<b>Evaluation of qualifications and research project</b>	Candidates' presence not required	From July 26th 2024
<b>Oral examination</b>	<b>Date:</b> From September 2 <sup>nd</sup> 2024, h. 9.30 am <b>Place:</b> In presence, Dipartimento di Scienze Biomediche e Biotecnologiche – Sala Riunioni 2° Piano Torre Sud <b>Or</b> Online through Microsoft Platform	From September 5th 2024

\*\* If the number of admitted candidates does not allow the oral test to be held on a single day, a calendar will be published on the website together with the results of the evaluation of qualifications and the research project.

\*\*\* The results of the admission tests will be available on the website. Publication on the site has the value of notification. No communication will be sent to candidates via email.

## Documents to be annexed to the application

Only documents drawn up in **Italian, English or French** will be considered valid and evaluated by the Commission. For identity documents and qualifications issued in a different language, a sworn and certified translation into Italian, French or English made by an authorized body or the University that issued the qualification must be attached.



Finanziato dall'Unione europea  
NextGenerationEU



Italiadomani  
PILLOLE NAZIONALI DI PROSPETTIVA E QUALITÀ



UNIVERSITÀ  
degli STUDI  
di CATANIA



FONDAZIONE  
INF-ACT

#### MANDATORY DOCUMENTS TO BE SUBMITTED WITH THE APPLICATION FORM

<b>Identity document</b>	Scan of a valid identity document in accordance with the provisions of Art. 35 c.2 D.P.R. 28 December 2000 n. 445 and subsequent amendments: "The passport, the driving license, the boat license, the pension booklet, the license to operate heating systems, the firearms license, the identification cards, provided that they have a photograph and a stamp or other equivalent signature, are equivalent to the identity card, issued by a state administration."
<b>Curriculum Vitae</b>	No specific format is required. The CV must be dated and signed (the signature will be valid only if handwritten or digital). Candidates who submit CVs without a signature will be excluded from the selection.
<b>Qualifications</b>	See Call for applications with particular reference to art. 3, paragraph 4
<b>Progetto di ricerca</b>	Research project (written in English) a) divided into: state of the art; description of the project; expected results; articulation of the project and implementation times; proposed criteria for the verification of the results achieved; Concise bibliography. b) maximum length of 25,000 characters, including title, spaces, formulas, bibliography
<b>Publications</b>	- List of any scientific publications (indicate DOI number, ISBN/ISSN)
<b>Documents certifying the knowledge of the foreign language, if any</b>	- Any certificate, attesting to the knowledge of a foreign language in the E.U., issued by a legally recognized institution (by way of example but not limited to: TEOFL, IELTS, Cambridge Exol, DELF, DELE, KEG, Goethe Institut, etc.)
<b>Documents certifying computer skills</b>	- Any documents certifying computer skills
<b>Documents relating to further training courses</b>	- University Master of I or II level - Specialization and/or Higher Education courses in subjects related to the research fields covered by the PhD Course - Scientific research, of any type (basic, oriented, finalized, translational, applied, etc.) and carried out in any capacity, including holding research grants and participation in research projects; - Additional Master's degree

#### Selection procedure criteria

The assessment is expressed through the attribution of an overall score, as established by art. 5 of the call for applications, to which reference should be made.

- 1. Evaluation of qualifications and research project** : minimum score to be admitted to the oral examination: 40 points, maximum 60 points
- 2. Oral examination** – minimum to pass the examination: 40 points, maximum 60 points