

ANNEX H	
PHD COURSE IN INNOVATIVE TECHNOLOGIES AND SCIENCES FOR HEALTH AND ACTIVE AGING - XL cycle academic year 2024/2025	
Coordinator: Prof. Elena Ranieri (PO) - SSD: MED/05 - University of Foggia	
Scientific and disciplinary sectors	All SSD
Administrative headquarters: DEPARTMENT OF MEDICAL AND SURGERY SCIENCES	
Length:	3 years
Curriculum	<p>1) INNOVATIVE BIOTECHNOLOGIES:The curriculum in Innovative Biotechnology is mainly oriented towards basic or translational research. The research topics developed will be: biotechnologies applied to organ transplants; predictive medicine and new biomarkers in human pathology; development of innovative diagnostic technologies; biotechnologies for the characterization, molecular diagnostics, imaging and the individualization of cancer and rare diseases therapies; biology of aging.</p> <p>INNOVATIVE METHODOLOGIES IN CLINICAL RESEARCH:The curriculum in Innovative Methodologies in Clinical Research is mainly oriented towards clinical research. The research topics developed will be: technologies for the study of emerging infectious diseases through big data analysis; robotic innovation and surgery; regenerative medicine; bioinformatics and artificial intelligence for the improvement of SSN (National Healthcare System); telemedicine and proximity medicine; promotion of strategies for active aging; risk management; innovative tools to support medical decision-making processes; government of innovation in the healthcare sector; law, healthcare responsibility and new technologies; BCT and new medical business models.</p>
TOTAL NUMBER OF POSITIONS AVAILABLE: n. 12	
N. 9 POSITIONS WITH SCHOLARSHIP of which:	

n. 2 positions through scholarship granted by University of Foggia
n. 1 position through scholarship granted by D.M. 629/2024 PNRR 4.1 Public Administration
n. 5 positions through scholarship granted by D.M. 630/2024 co-funded by Enterprises
n. 1 position through scholarship fully granted by Enterprise

N. 3 WITHOUT SCHOLARSHIP

COURSE DESCRIPTION

PROGRAM, OBJECTIVES AND CONSISTENCY WITH THE PNRR pursuant to the DD.MM. nos. 629/2024 and 630/2024

<https://www.unifg.it/en/studiare/corsi-post-laurea/ciclo-xl/scienze-e-tecnologie-innovative-la-salute-e-linvecchiamento-attivo>

SCHOLARSHIP

n. 1 SCHOLARSHIP granted by
DM 630/2024 PNRR co-funded by **Fondazione Bruno Kessler (FBK)**

Topic: Advanced technologies for cancer treatment

Research activity:

Development of high sensitivity sensors (SiPM based on SciFi) for dose delivered and energy monitoring in FLASH radiotherapy for tumor treatment.

n. 1 SCHOLARSHIP granted by
DM 630/2024 PNRR co-funded by **Federazione Nazionale degli Ordini dei Biologi (FNOB)**

Topic: Translational research applied to tumors and chronic non-communicable diseases

Research activity:

The topics of the PhD scholarship will be focused on the study of inflammaging and senescence both in tumors and in chronic non-communicable diseases. The study of the factors that modulate and control the development and/or progression of these pathologies could be used as preventive/prognostic/predictive biomarkers and as therapeutic targets for personalized medicine. The in vitro/in vivo omics investigations will implement the study of the biological determinants of the pathologies under study.

n. 1 SCHOLARSHIP granted by
DM 630/2024 PNRR co-funded by **Azienda Ospedaliero-Universitaria "Ospedali Riuniti" di Foggia**

Topic: Translational and clinical research

Research activity:

Innovative technologies for the study of tumors, chronic non-communicable diseases and emerging infectious diseases also through big data analysis; Innovation and robotic surgery; Regenerative medicine; Bioinformatics and artificial intelligence for the improvement of the NHS; Telemedicine and proximity medicine; promotion of strategies for active aging.

n. 1 SCHOLARSHIP granted by

DM 630/2024 PNRR co-funded by **Orga Bio Human srl**

Topic: Translational and clinical research

Research activity:

Immunodiagnostics and molecular genetics.

Innovative technologies for the study of tumors, chronic non-communicable diseases and emerging infectious diseases also through big data analysis; Genetics and molecular diagnostics with development and production of molecular diagnostic kits; Bioinformatics and artificial intelligence for the improvement of the NHS.

n. 1 SCHOLARSHIP granted by

DM 630/2024 PNRR co-funded by **ICS Maugeri IRCCS**

Topic: Clinical and Translational Research.

Research activity:

Innovative technologies for the study of tumors, chronic non-communicable diseases and emerging infectious diseases also through big data analysis; Innovation and robotic surgery; Regenerative medicine; Bioinformatics and artificial intelligence for the improvement of the NHS; Telemedicine and proximity medicine; promotion of strategies for active aging.

n. 1 SCHOLARSHIP granted by **Boston Scientific SpA**

Research activity:

Correlation of intrarenal pressure (IRP) using an advanced ureteroscope with evidence of biomarkers of renal injury during retrograde intrarenal surgery (RIRS).

ADMISSION PREREQUISITES

Master's Degree

All Master's Degrees or the corresponding Postgraduate Degrees or the corresponding Degrees obtained according to the system prior to Ministerial Decree 509/99 or the corresponding equivalent qualifications.

ADMISSION PROCEDURES

The selection will be based on the assessment of qualifications, research project (according to the Format 1/I) and oral exam. **The research project must be written in English under penalty of exclusion from the selection.**

During the in-person oral test, the research project submitted by the candidate at the time of application will also be discussed in English, as well as verification of foreign language (English) proficiency on scientific text.

The assessment will take place pursuant to art. no. 6 and 7 of the Call.

Foreign candidates can choose to take the admission test in English.

ADMISSION TEST CALENDAR

The date of the exam will be published on the Department's web page dedicated to the PhD in "Innovative Sciences and Technologies for Health and Active Aging".

<https://www.unifg.it/it/studiare/post-lauream/dottorati-di-ricerca>

<https://www.unifg.it/en/studiare/corsi-post-laurea/ciclo-xl/scienze-e-tecnologie-innovative-la-salute-e-linvecchiamento-attivo>

Other useful information

For all useful information, please consult the University website at

<https://www.unifg.it/en/studiare/corsi-post-laurea/ciclo-xl/scienze-e-tecnologie-innovative-la-salute-e-linvecchiamento-attivo>

Useful contacts

Educational/scientific contact person

Prof. **Elena Ranieri**
email: elena.ranieri@unifg.it

Administrative contact person:

Dott. **Maria Grazia Mariella**
email: ufficiodottorato@unifg.it