

## SCIENZE BIOMEDICHE

## BIOMEDICAL SCIENCES

**Coordinator:** Prof. Andrea Piana

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**Area disciplinare:** Biomedicina

**Dipartimenti interessati:** Scienze Biomediche (Sede amministrativa) – Scienze Mediche, Chirurgiche e Sperimentali

**Costo:** rata unica annuale di 354,23 euro (per ogni anno di iscrizione)

**Scadenza bando:** 13/09/2018

**Breve descrizione:** il Corso di Dottorato in Scienze Biomediche si propone l'obiettivo generale di formare ricercatori di elevata qualificazione in aree scientifiche e metodologiche di grande rilevanza per la ricerca di base ed applicata nel campo delle scienze biomediche. L'attività formativa e di ricerca è caratterizzata da un approccio multidisciplinare ed è articolato nei seguenti curricula:

- Fisiopatologia medica
- Genetica medica
- Medicina di genere dell'uomo, della donna e del bambino
- Neuroscienze
- Oncologia molecolare
- Sanità pubblica

**Disciplinary area:** Biomedical

**Departments involved:** Biomedical Science (Head Office)- Clinical and Experimental Medicine- Department of Medical, Surgical and Experimental Sciences

**Cost:** Single annual payment 354.23 euro

**Deadline for applicants:** 13/09/2018

**Brief description:** The Ph.D. course in Biomedical Science proposes the general goal of promote highly qualified researchers in scientific and methodological areas, that represents a central point in development of basic and applied studies in biomedical field. Training and research activity is characterized by multidisciplinary approach and is structured by the following curricula :

- Physiopathology
- Genetics
- Medicine of human gender, woman and child
- Neuroscience
- Molecular Oncology
- Public Health

### INFORMAZIONI SUL DOTTORATO

### INFORMATION ON THE PH.D. COURSE

## BIOMEDICAL SCIENCE

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### KEY INFORMATION

- **Disciplinary area:** Biomedical
- **Department:** Biomedical Science (Head Office)- Clinical and Experimental Medicine- Department of Medical, Surgical and Experimental Sciences
- **Cost:** annual fee of € 354,23
- **Deadline for applicants:** 13/09/2018
- **Coordinator:** Prof. Andrea Fausto Piana
- **Venue:** Biomedical Science - Clinical and Experimental Medicine- Department of Medical, Surgical and Experimental Sciences
- **Type of lessons: Language:** Italian - English
- **Positions open:** 8
- **ECTS:** 180
- **Deadline for applicants :** from 03/08/2018 to 13/09/2018

### OVERVIEW

**Brief description:** The Ph.D. course in Biomedical Science proposes the general goal of promote highly qualified researchers in scientific and methodological areas, that represents a central point in development of basic and applied studies in biomedical field. Training and research activity is characterized by multidisciplinary approach and is structured by the following curricula :

- Physiopathology
- Genetics
- Medicine of human gender, woman and child
- Neuroscience
- Molecular Oncology
- Public Health

**Objectives of the School:** The PhD School in Biomedical Sciences is open to young Italian and foreign graduates, it proposes the objective to train researchers of high qualification, to be used in research facilities both basic and applied, public or private.

The training activity and research is focused on scientific and methodological areas, very important for basic and applied research in the field of biomedical sciences. Next to the general objectives of the School, each activated address pursue its own address goal, as part of their specific curricula and research topics.

The training objective will be pursued in collaboration with other Italian or foreign universities, or with public and private entities who meet the requirements of high cultural and scientific qualifications and staff, facilities and adequate equipment.

#### Educational Goals

**Overall objective:** Train researchers of high qualification, to be used in research facilities both basic and applied, public or private. The training objective will be pursued in collaboration with other Italian and

foreign universities or as a result of agreements with public and private entities who meet the requirements of highly qualified cultural and scientific, as well as adequate personnel, facilities and equipment.

The formation of the PhD will be aimed also to its insertion into the world of work and the production system at public and private institutions.

#### **Specific objectives:**

- Orientate the training activity and research on extended scientific and methodological areas, very important for basic and applied research in the field of biomedical sciences;
- Perform the theme proposed in the activated curricula with interdisciplinary approach;
- Record the scientific work on the proposed topics by the teachers involved in training;
- Perform specific aspects of the training within interchange projects established with research institutions both public and private, Italian and foreign, willing to accommodate the graduate students in their structures.

For the realization of these educational objectives the PhD program will establish a joint teaching commission, that will provide the educational activity organization and coordination.

#### **Career and professional opportunities**

The PhDs in Biomedical Sciences have title and competence to be employed in public or private facilities with research purposes (experimental and applied, clinical and laboratory investigations), training and assistance in order to implement projects of national and international research on topics of neuroscience, genetics, molecular pathophysiology, cellular and medical, public health, aesthetic adhesive odontostomatology , gender medicine and biostatistics.

The PhD student will be provided with extensive knowledge in biomedical and technology field, which will enable them to acquire skills to plan and carry out biotechnological applications that can contribute both to a basic knowledge enrichment that their application to human health, especially to the diagnosis, prevention and treatment of diseases.

The training and research activities offered by the PhD program in Biomedical Sciences face problems and emerging issues to which more and more national and international organizations devote significant financial and human resources. Therefore the future PhD in Biomedical Sciences will find source of employment at: Italian and foreign universities, , public and private research centers, public institutions, companies.

## **REQUIREMENTS**

**License for access:** Master's Degree o Degree prior D.M 509/1999

**Selection criteria:** Public selection based on curricula data, Research Project and interview

**Language:** English language is required as admission criteria

## TEACHING

### Lessons learned during Ph.D. course in A.A 2017/2018

COURSE	PROFESSOR	HOURS	CFR	FINAL EXAM
Descriptive and Inferential Statistic applied on research	Prof. G. Sotgiu/Dott.ssa L. Saderi	16	2	Yes
Advanced Statistic: Linear Model in scientific research	Prof.ssa G. Solinas	4	0,5	Yes
Evidence Based Medicine	Prof. P. Castiglia	4	0,5	Yes
Role of Ethics Committee	Prof. G. Sotgiu	4	0,5	Yes
Epidemiological Methodology	Prof. A. Piana	8	1	Yes
Molecular Epidemiology applied to infection and chronic-degenerative diseases	Prof. A. Piana	4	0,5	Yes
Scientific Communication	Prof. G. Campus	4	0,5	Yes
Detrimental practices in scholarly publishing	Dott. A. Manca	4	0,5	Yes
Neuromodulation	Prof.ssa F. Deriu	4	0,5	Yes
Stamina cells in regenerative medicine, between past and future	Prof.ssa M. Maioli	4	0,5	Yes
Development and characterization of bio-sensor for monitoring molecules involved in biomedical process	Prof. P.A. Serra	4	0,5	Yes
Fundamental of Ethics	Dott. B. Arru	4	0,5	Yes
Ethic in Biomedical research	Dott. B. Arru	4	0,5	Yes
Application of R-Software	Dott. Matteo Floris	4	0,5	Yes
Molecular Model in biological systems	Prof.ssa M. Maioli	4	0,5	Yes

Sequencing Method by N.G.S	Dott. A. Angius	4	0,5	Yes
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**Attendance for student is obligatory for at least 70% of amount of hours.**

**For student without grant and who works for companies, the frequency required, is at least 40% of total amount.**

## CONTACTS

Ufficio Alta Formazione: Piazza Università, 11 - Palazzo Zirulia – First floor, [rzallu@uniss.it](mailto:rzallu@uniss.it), +39 079 229992,  
Monday – Wednesday and Friday from 10:00 to 12:30.

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