

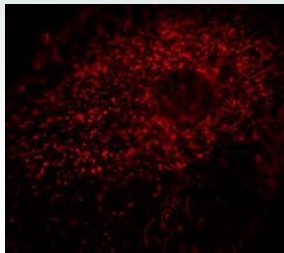
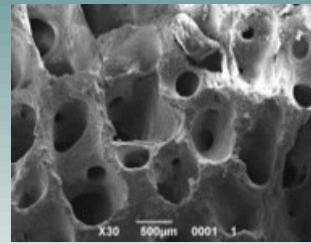
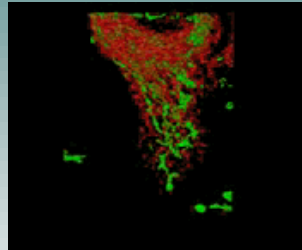
# 生物医学专业博士研究生招生计划

生物医学专业隶属于帕多瓦大学生物医学学院，学院还有生命科学专业和分子制药专业。学院拥有目前世界上最前沿的生物医学设备。帕多瓦大学研究生院生物医学专业提供非常有竞争力的PhD课程计划。本专业共有4个研究方向，教职工35人。其中4位课题组长科研综合实力全意大利排名前60，H-index均大于70并且拥有一位美国科学院院士。博士研究生毕业后的就业比例与全球最顶尖的研究机构相当。学院的科研氛围非常充实活泼，每年有非常多的研讨会和多学科交流机会。学院拥有众多研究领域，包括：生物化学，细胞生物学，神经生物学，生物信息学，结构生物学，线粒体科学，肌肉与心脏生理学，运动生理学，电生理学，信号转导，氧化平衡，组织再造工程和纳米粒子。

本课程面向中国大陆地区申请者，由中国国家留学基金委提供奖学金，每年4个名额。此外，帕多瓦大学每年在标准选拔程序中提供的名额也向中国申请者开放。

博士课程将在导师的指导下进行实验研究，参加博士生课程，并且支持学生参加高级进修课程和国际回忆。

中国申请者可从以下获得更多信息：  
**china.phd@unipd.it**



**PHD COURSE IN BIOMEDICAL SCIENCES**

**UNIVERSITY OF PADOVA**

**DIPARTIMENTO DI SCIENZE BIOMEDICHE**  
Via Ugo Bassi 58/B  
35131 Padova, Italy

For further information visit: <http://doctorate.biomed.unipd.it/>

General contact:  
**china.phd@unipd.it**



**UNIVERSITÀ  
DEGLI STUDI  
DI PADOVA**

## PhD Course in Biomedical Sciences

The PhD Programme in Biomedical Sciences at the University of Padua offers highly competitive training in Biochemistry, Cell Biology, Neuroscience, Bioinformatics, Structural Biology, Mitochondrial Science, Muscle and Heart Pathophysiology, Exercise Physiology, Electrophysiology, Signal Transduction, Redox Balance.

Every academic year, the School, together with the China Scholarship Council (CSC), offers 4 scholarships to candidates from the People's Republic of China. Additional openings are available for candidates from the PRC through standard annual selection procedures, held by the University of Padua.

**Info for applicants from the  
People's Republic of China:  
[china.phd@unipd.it](mailto:china.phd@unipd.it)**

# Biomedical Sciences at UNIPD: understanding biology as the basis of medicine

## BIOMEDICAL SCIENCES AT UNIPD

The post-graduate course, organized within the Department of Biomedical Sciences in the Interdepartmental Vallisneri Complex, offers a highly competitive PhD programme in the fields of Biochemistry, Cell Biology, Neurobiology and Physiology.

The Course, which also includes Scientists from the National Research Council (CNR) Neuroscience Institute, currently includes 35 faculty members whose scientific expertise covers a large spectrum of biomedical disciplines and offers all the facilities needed to perform cutting edge research in Biomedicine.

The mission of our School is to train top-level individuals in the field of the Biomedical Sciences. Our students are expected to combine a strong basic understanding of biological processes with the application of advanced experimental techniques. Our goal is to provide our students with a prime education helping them to pursue professional careers in Science. Although the major emphasis of the programme is in experimental research, we also provide ample learning opportunities through weekly Journal Clubs and a large number of Seminars, which cover most aspects of the Life Sciences.

Students choose their field of interest (listed at the Course website: <http://doctorate.biomed.unipd.it/>). The research project is carried on under the supervision of one of the Faculty members. Advanced graduate-level courses are offered through the three years, along with seminars and Journal clubs. Attendance to international meetings and conferences is supported by the Course with additional funding.

## RESEARCH TOPICS

**Autonomic Control of Cardiac Function.** Understandings of mechanisms that regulate intercellular communication between autonomic neurons and cardiomyocytes.

**cAMP and Ca<sup>2+</sup> Signalling in Neurodegeneration.** Role of intracellular signals in onset of Alzheimer's Disease.

**Chaperones in Muscle Differentiation and Disease.** Cytoprotective role of molecular chaperones in skeletal and heart myocytes.

**Computational and Molecular Interactomics.** Bioinformatic methods and databases applied to in silico analysis of complex biological systems.

**Extracellular matrix (ECM) Pathobiology and Tissue Engineering.** ECM remodeling during tissue repair and pathological processes such as inflammation, fibrosis and cancer.

**Health, Sport and Exercise Sciences.** Physiology of exercise training and their implications for health.

**Mechanisms of Neurodegeneration.** Prion diseases and Amyotrophic Lateral Sclerosis.

**Migraine Pathophysiology.** Molecular bases and mechanisms that cause familial hemiplegic migraine.

**Mitochondria in Cell Death and Cancer.** Molecular mechanisms through which mitochondria regulate cell death in degenerative disease and cancer.

**Mitochondrial Ca<sup>2+</sup> Signalling.** Structure and function of mitochondrial Ca<sup>2+</sup> transport mechanisms including the calcium uniporter (MCU).

**Muscle Contractility and Plasticity.** Mechanism of muscle contraction and adaptation.

**Nanoparticles and Peptides in Biomedicine.** Biomedical and toxicological applications of nanoparticles and peptides.

**Neuron-glia Interaction and Epilepsy.** Role of glia and glia-neuron interactions in onset of epilepsy.

**Neurotoxins, Neuroparalysis and Regeneration.** Molecular mechanism of action of neurotoxins and their use in biomedicine.

**Connexin-related hereditary and acquired hearing loss.** Targeting calcium and redox signaling to unravel key mechanisms and explore therapeutic options.

**Oxidative Metabolism in Cardiac Disease.** Role of mitochondrial dysfunction in cardiac diseases.

**Oxidative Stress and Thiol Redox Regulation.** Oxidative stress and redox regulation in normal and tumor cells.

**Pathophysiology of Striated Muscle.** Novel therapeutic approaches to treat rare and genetic muscular diseases.

**Pharmacobiology of Natural Compounds.** Synthesis, biodistribution and effects of natural compounds.

**Phosphorylation Signalling in Health and Disease.** Protein kinases and phosphatases and their role in signalling.

**Protein Crystallography and Protein Engineering.** Determination of crystal structure of proteins relevant for human health.

**Regulation of the Mitochondrial Proteome.** Mitochondrial biogenesis and transcriptional regulation of nuclear-encoded mitochondrial proteins.

**Signaling pathways that control protein homeostasis in muscle.** Molecular mechanisms of atrophy and hypertrophy, and the role of autophagy in regulation of muscle mass.