UNIVERSITÀ
DEGLI STUDI DI TRIESTE

Area dei Servizi Istituzionali
Unità di staff Dottorati di ricerca

ATTACHMENT 3 LAST REVISED 05/05/2021

PhD IN MOLECULAR BIOMEDICINE OVERVIEW (in partnership with the International Centre for Genetic Engineering and Biotechnology - ICGEB Trieste)

IN BRIEF		
Lines of research	1	Molecular Oncology
	2	Molecular Pathophysiology
	3	Regenerative Medicine
	4	Molecular Therapeutics and Diagnostics
	5	Functional genomics
	6	Molecular Microbiology
	7	Neurobiology
	8	Molecular Immunology
Administrative location	University of Trieste	
Organizing Department	Department of Life Sciences	
Participating Department	Department of Medicine, Surgery and Health Sciences	
Partner	International Center for Genetic Engineering and Biotechnology (ICGEB)	
Duration	3 years	
Attendance abroad that entitles to a scholarship increase - min. max. of months for each PhD student (over 3 years)	0 - 6	
Official language	English All the activities are in English (teaching activities, students' presentations, reports, thesis, journal clubs, etc.)	
Subject Areas *(in alphabetical code order)*	05	BIOLOGY
	06	MEDICINE
Macro Research Fields *(in alphabetical code order)*	05/B	ANIMAL BIOLOGY AND ANTHROPOLOGY
	05/D	PHYSIOLOGY
	05/E	EXPERIMENTAL AND CLINICAL BIOCHEMISTRY AND MOLECULAR BIOLOGY
	05/F	EXPERIMENTAL BIOLOGY
	05/I	GENETICS AND MICROBIOLOGY

	06/A	PATHOLOGY AND LABORATORY MEDICINE
	06/B	GENERAL CLINICAL MEDICINE
	06/D	MEDICAL SPECIALITIES
Scientific Disciplinary Sectors *(in alphabetical code order)*	BIO/06	COMPARATIVE ANATOMY AND CITOLOGY
	BIO/09	PHYSIOLOGY
	BIO/10	BIOCHEMISTRY
	BIO/11	MOLECULAR BIOLOGY
	BIO/12	CLINICAL BIOCHEMISTRY AND MOLECULAR BIOLOGY
	BIO/13	EXPERIMENTAL BIOLOGY
	BIO/18	GENETICS
	BIO/19	MICROBIOLOGY
	MED/04	EXPERIMENTAL MEDICINE AND PATHOPHYSIOLOGY
	MED/07	MICROBIOLOGY AND CLINICAL MICROBIOLOGY
	MED/09	INTERNAL MEDICINE
	MED/10	RESPIRATORY DISEASES
	MED/11	CARDIOVASCULAR DISEASES
	MED/12	GASTROENTEROLOGY
Domain European Research Council	LS	LIFE SCIENCES
ERC Panels	LS1	MOLECULES OF LIFE: BIOLOGICAL MECHANISMS, STRUCTURES AND FUNCTIONS: *FOR ALL ORGANISMS*: MOLECULAR BIOLOGY, BIOCHEMISTRY, STRUCTURAL BIOLOGY, MOLECULAR BIOPHYSICS, SYNTHETIC AND CHEMICALBIOLOGY, DRUG DESIGN, INNOVATIVE METHODS AND MODELLING
	LS2	INTEGRATIVE BIOLOGY: FROM GENES AND GENOMES TO SYSTEMS: *FOR ALL ORGANISMS*: GENETICS, EPIGENETICS, GENOMICS AND OTHER 'OMICS STUDIES, BIOINFORMATICS, SYSTEMS BIOLOGY, GENETICDISEASES, GENE EDITING, INNOVATIVE METHODS AND MODELLING, 'OMICS FOR PERSONALISED MEDICINE
	LS3	CELLULAR, DEVELOPMENTAL AND REGENERATIVE BIOLOGY: *FOR ALL ORGANISMS*: STRUCTURE AND FUNCTION OF THE CELL, CELL-CELL COMMUNICATION, EMBRYOGENESIS, TISSUE DIFFERENTIATION, ORGANOGENESIS, GROWTH, DEVELOPMENT, EVOLUTION OF DEVELOPMENT, ORGANOIDS, STEM CELLS, REGENERATION, THERAPEUTIC APPROACHES
	LS4	PHYSIOLOGY IN HEALTH, DISEASE AND AGEING: ORGAN AND TISSUE PHYSIOLOGY, COMPARATIVE PHYSIOLOGY, PHYSIOLOGY OF AGEING, PATHOPHYSIOLOGY, INTERORGAN AND TISSUE COMMUNICATION, ENDOCRINOLOGY, NUTRITION, METABOLISM, INTERACTION WITH THE MICROBIOME, NON-COMMUNICABLE DISEASES INCLUDING CANCER (AND EXCEPT DISORDERS OF THE NERVOUS SYSTEM AND IMMUNITY-RELATED DISEASES)
	LS5	NEUROSCIENCE AND DISORDERS OF THE NERVOUS SYSTEM: NERVOUS SYSTEM DEVELOPMENT, HOMEOSTASIS AND AGEING, NERVOUS SYSTEM FUNCTION AND DYSFUNCTION, SYSTEMS NEUROSCIENCE AND MODELLING, BIOLOGICAL BASIS OF COGNITIVE PROCESSES AND OF BEHAVIOUR, NEUROLOGICAL AND MENTAL DISORDERS

LS6	IMMUNITY, INFECTION AND IMMUNOTHERAPY: THE IMMUNE SYSTEM, RELATED DISORDERS AND THEIR MECHANISMS, BIOLOGY OF INFECTIOUS AGENTS AND INFECTION, BIOLOGICAL BASIS OF PREVENTION AND TREATMENT OF INFECTIOUS DISEASES, INNOVATIVE IMMUNOLOGICAL TOOLS AND APPROACHES, INCLUDING THERAPIES
LS7	PREVENTION, DIAGNOSIS AND TREATMENT OF HUMAN DISEASES: MEDICAL TECHNOLOGIES AND TOOLS FOR PREVENTION, DIAGNOSIS AND TREATMENT OF HUMAN DISEASES, THERAPEUTIC APPROACHES AND INTERVENTIONS, PHARMACOLOGY, PREVENTATIVE MEDICINE, EPIDEMIOLOGY AND PUBLIC HEALTH, DIGITAL MEDICINE

WHO'S WHO

In partnership with the International Centre for Genetic Engineering and Biotechnology - ICGEB Trieste

Chair	Prof. Germana Meroni – Department of Life Sciences – University of Trieste - phone +39 040.558.8679; email gmeroni@units.it
Vice	Prof. Licio Collavin - Department of Life Sciences - University of Trieste - phone +39 040.3756802 - +39 040.3756804; email lcollavin@units.it
PhD Academic Board	List of members
Web site	https://www.biologia.units.it/corsi/10/PhD-program-in-Molecular-Biomedicine
Email	dmm@units.it
Course description and objectives	The PhD program in Molecular Biomedicine aims to provide higher education to young University graduates in biomedical – and scientific in general – disciplines, to prepare them for a career in basic, clinical or translational research in the field of molecular medicine, with specific reference to the areas of molecular oncology, pathophysiology, molecular genetics, biochemistry and biotechnology, cell biology, regenerative medicine, and neurobiology. Key to the program is research activity in the laboratory, where students develop a critical approach to scientific observation and carry out a specific project. The Program also organizes intensive courses on core biomolecular disciplines, and seminars given by national and international experts. The PhD program in Molecular Biomedicine is a logical choice for young University graduates who wish to pursue a career in basic and translational biomedical research. The program gathers a significant number of researchers from the University of Trieste and from the International Centre for Genetic Engineering and Biotechnology (ICGEB) with strong experience in biomedicine, thus offering to students a broad set of choices spanning the entire spectrum of modern research in molecular medicine. The PhD program is part of the Italian Network of PhD programs in biomedical and biotechnological sciences (NEIDOS, http://dev.neidos.it).
Job placement opportunities	The PhD program in Molecular Biomedicine offers job placement opportunities primarily in basic and translational biomedical research. Mainly in academic research institutions or hospitals, but also in pharmaceutical and biotech companies. The program is designed to provide a solid scientific background and a very strong experimental competence; graduates can be directly employed in biotech companies, or they can continue their scientific career with a post-doctoral experience, eventually leading to a position of independent group leader. This program can lead to the following employment opportunities: 1) Researcher, doing basic research in academic institutions or biotech/pharmaceutical companies; 2) Clinical Investigator, doing clinical research in academia, public or private hospitals, pharmaceutical companies; 3) Medical biotechnologist, doing applied research in biotech/pharmaceutical

		companies, academia, public or private hospitals.
Main cooperating international Universities and Research Institutions	1	Max-Planck-Institut für Biochemie, Munich, Germany - Dept of proteomics and signal transduction
	2	CNIO – Spanish national cancer center - Spain
	3	Scuola di dottorato in Biofisica della Facoltà di Scienze Naturali all'Università di Spalato, Croazia
	4	Sidney Kimmel Comprehensive Cancer Center, JohnS Hopkins University, (Baltimore, MD), USA
	5	University Shinshu di Matsumoto, Japan