



UNIONE EUROPEA
Fondo Sociale Europeo



Università degli Studi di Cagliari

**International PhD Programme in
MOLECULAR AND TRANSLATIONAL MEDICINE
in collaboration with Université Laval**

Curriculum 1: Molecular Oncology and Pathology
Curriculum 2: Nutritional and Metabolic Sciences

DISCIPLINARY SCIENTIFIC AREA	06 - MEDICAL SCIENCES; 05 - BIOLOGICAL SCIENCES; 03 - CHEMICAL SCIENCES
COORDINATOR	PROF. SEBASTIANO BANNI
HEAD DEPARTMENT	DEPARTMENT OF BIOMEDICAL SCIENCES
DURATION	3 YEARS
EDUCATIONAL OBJECTIVES AND RESEARCH TOPICS	<p>The three-year programme in Molecular and Translational Medicine at UniCA offers an interdisciplinary training of study and research that provides students with the knowledge and research skills required for a successful research career in biomedical sciences. The Programme has two research tracks, molecular oncology and pathology, and nutritional and metabolic sciences, which together encompass interdisciplinary research and graduate training programme suited for training young scientists for future appointments in academic institutions, research centers, or the biotech industry. The faculty comprises over 30 high rank Italian and international scientists, whose scientific interests cover a wide range of biomedical topics highly relevant to human health. PhD students in the molecular oncology and pathology track investigate genetic/epigenetic alterations and molecular epidemiology of solid and hematologic cancers, cancer biomarkers of diagnostic and prognostic value, genes involved in the pathogenesis of rare genetic diseases, molecular mechanisms of neurodegeneration, molecular pathogenesis of infectious diseases and interactions of pathogens with the host. PhD students in the nutritional and metabolic sciences track investigate the nutritional and metabolic impact of nutrients in physiological and pathophysiological conditions where the nutritional and / or metabolic component is particularly relevant. The multidisciplinary nature of the research of the Faculty member of the PhD programme will be accomplished through frontal lectures and seminars on topics of oncology, genetics, molecular biology, virology, pharmacology, epidemiology, statistics, nutrition, metabolism, bioinformatics, computational biophysics and omic sciences.</p> <p>The training course also includes research stays of 8-18 months in universities or international public or private research centers, to develop the ability to work in different scientific contexts.</p> <p>The preparation achieved at the conclusion of the training course will make the PhD in Molecular and Translator Medicine competitive for post-doc positions in Universities and National and International Research Centers, and/or for entry into academia, in Industries/Public and Private Institutions operating in the biomedical, health and nutrition fields.</p> <p>Training plan articulation: 1st year Formulation of the research project and assignment of the Supervisor. Research activities Educational-seminary and updating activities related to the topic of the</p>



	<p>thesis and the general themes of the training course (participation in seminars held by the Faculty member of the PhD programme, attendance at scientific congresses, critical analysis of the scientific literature). Presentation to the Faculty member of the PhD programme of the results obtained in the first year (Progress Report in seminary form). Annual report 2nd year Research activities. Educational-seminary and updating activities related to the topic of the thesis and the general themes of the training course (participation in seminars and scientific conferences, critical analysis of the scientific literature, design activities). Internships abroad. Presentation to the Faculty member of the PhD programme of the research activities carried out and the results obtained in the second year (Progress Report in seminary form). Processing of the data obtained and drafting of scientific work on the project results Annual report Teaching activities to support in-house students of the Grades I and II degrees (exercises, thesis), and teachers (exams) 3rd year Research activities. Educational-seminary and updating activities related to the topic of the thesis and the general themes of the training course (participation in seminars and scientific conferences, critical analysis of the scientific literature, design activities). Internships abroad. Presentation to the Faculty member of the PhD programme of the research activities carried out and the results obtained during the three years of doctorate, (Final Report in seminary form). Processing of the data obtained and drafting of scientific work on the project results. Teaching activities to support in-house students of the Grades I and II degrees (exercises, thesis), and teachers (exams) Thesis (in English) Thesis Dissertation (in English)</p>
<p>ELIGIBILITY AND OTHER REQUIREMENTS FOR CANDIDATES</p>	<p>LM-6 <i>Biologia</i> LM-9 <i>Biotechnologie mediche, veterinarie e farmaceutiche</i> LM-13 <i>Farmacia e farmacia industriale</i> LM-41 <i>Medicina e chirurgia</i> LM-61 <i>Scienze della nutrizione umana</i> LM-70 <i>Scienze e tecnologie alimentari</i> 6/S (<i>specialistiche in biologia</i>) 9/S (<i>specialistiche in biotechnologie mediche, veterinarie e farmaceutiche</i>) 14/S (<i>specialistiche in farmacia e farmacia industriale</i>) 46/S (<i>specialistiche in medicina e chirurgia</i>) 69/S (<i>specialistiche in scienze della nutrizione umana</i>) 78/S (<i>specialistiche in scienze e tecnologie agroalimentari</i>) and all the equivalent degrees awarded according to the old Italian Regulations.</p> <p>Academic qualifications issued by a foreign university, comparable in duration and content to the Italian titles requested and providing access to PhD education in the country of achievement, recognized as equivalent degrees in Medicine, Biology, Pharmacy, Biotechnology; Pharmaceutical</p>



	Chemistry, Human nutrition.
ADMISSION TESTS	<p>ASSESSMENT OF QUALIFICATIONS AND CURRICULUM VITAE, AND A VIDEO CONFERENCE INTERVIEW.</p> <p>The interview is aimed at verifying the candidate's ability to orientate within the main study areas of the doctorate, and his/her analysis, elaboration and communication skills. It can be conducted in English.</p> <p>During the interview, the candidate will discuss his/her proposal for a 3-year research project.</p> <p>In addition to the documents required in art. 3 of the notice of competition (<i>Annex A 'Titoli valutabili e Curriculum Vitae'; Annex B 'Dichiarazione sostitutiva di certificazioni del/i titolo/i di accesso con esami e voti'; two-sided coloured scanned copy of a valid ID, with a clear photo</i>), the candidates must upload, within the deadline indicated in the notice, a personal statement, i.e. max. 1,000 characters (including spaces) explaining the reasons prompting to apply for the PhD Programme.</p> <p>The candidate's language skills will be assessed through a short talk in English.</p>
ADMISSION TESTS FOR FOREIGN CANDIDATES APPLYING FOR RESERVED POSITIONS SUPPORTED BY A SCHOLARSHIP	<p>EVALUATION OF THE CURRICULUM VITAE, REFERENCE LETTERS AND A VIDEO CONFERENCE INTERVIEW.</p> <p>The interview is aimed at verifying the candidate's ability to orientate within the main study areas of the doctorate, and his/her analysis, elaboration and communication skills. It can be conducted in English.</p> <p>During the interview, the candidate will discuss his/her proposal for a 3-year research project.</p> <p>In addition to the documents required in art. 3 of the notice of competition (<i>certificate attesting the award of a 2nd level foreign degree needed to access a PhD programme, including exams and marks, with a translation in Italian or English; certificate attesting the award of a 1st level foreign degree, including exams and marks, with a translation in Italian or English; signed Curriculum Vitae preferably in EU format, in English or Italian; up to 3 reference letter(s), in English or Italian, on institutional letterhead paper, dated and signed by a university professor or expert in the PhD scientific area(s), following the prescriptions of each annex; additional qualifications, certifications, publications (up to 5) and work experiences, detailed in English or in Italian; two-sided coloured scanned copy of a valid ID, with a clear photo</i>), candidates must upload, within the deadline indicated in the notice, a personal statement, i.e. max. 1,000 characters (including spaces) explaining the reasons prompting to apply for the PhD Programme.</p> <p>The candidate's language skills will be assessed through a short talk in English.</p> <p>The reference letters must be written in English, following the form available at https://www.unica.it/unica/page/it/dottoraturicerca (How to apply for PhD selection: Guidelines and forms - Annex C), on letterhead of the University of the professor or expert in the scientific field(s) of the PhD programme, who signs and dates it.</p>
TOPICS OF THE VIDEOCONFERENCE INTERVIEW	<ul style="list-style-type: none"> - Cellular and molecular aspects related to the scientific research in Molecular Oncology and Pathology, including candidate's previous experiences in the field. - Cellular and molecular aspects related to scientific research in Nutritional and Metabolic Sciences, including candidate's previous experiences in the field.
POSITIONS	5
SCHOLARSHIPS	4 FUNDED BY THE UNIVERSITY OF CAGLIARI, 1 RESERVED FOR FOREIGN GRADUATES OF FOREIGN UNIVERSITIES.



POSITIONS WITHOUT SCHOLARSHIP	1
REFERENCE PERSON	PROF. SEBASTIANO BANNI - EMAIL: banni@unica.it - TEL. +390706754128 PROF. VALERIA SOGOS - EMAIL: sogos@unica.it - TEL. +390706754087.
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