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 AREAS	03 - CHEMICAL SCIENCES; 05 - BIOLOGICAL SCIENCES; 06 - MEDICAL SCIENCES
COORDINATOR	PROF. SEBASTIANO BANNI
HEAD DEPARTMENT	DEPARTMENT OF BIOMEDICAL SCIENCES
DURATION	3 years
LEARNING OUTCOMES AND RESEARCH TOPICS	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. There will also be courses in common with other PhD programmes on gender equality, innovation and intellectual property and technology transfer. The training course also includes research stays of 8-18 months in universities or international public or private research centres, to develop the ability to work in different scientific contexts. The preparation achieved at the conclusion of the training course will make the PhD in Molecular and Translational Medicine competitive for post-doc positions in Universities and National and International Research Centres, and/or for admission into academia, in Industries/Public and Private Institutions operating in the biomedical, health and nutrition fields. Training plan articulation: 1st year Formulation of the research project and assignment of the Supervisor. Research activities Educational-seminary and activities related to the topic of the 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 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 and drafting papers describing the 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 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 and drafting papers describing the 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)
ELIGIBILITY AND OTHER REQUIREMENTS FOR CANDIDATES (ART. 2 - NOTICE OF COMPETITION)	LM-6 Biologia LM-9 Biotecnologie mediche, veterinarie e farmaceutiche LM-13 Farmacia e farmacia industriale LM-41 Medicina e chirurgia LM-61 Scienze della nutrizione umana LM-70 Scienze e tecnologie alimentari 6/S (specialistiche in biologia) 9/S (specialistiche in biotecnologie mediche, veterinarie e farmaceutiche) 14/S (specialistiche in farmacia e farmacia industriale) 46/S (specialistiche in medicina e chirurgia) 69/S (specialistiche in scienze della nutrizione umana) 78/S (specialistiche in scienze e tecnologie agroalimentari) e tutte le lauree del Vecchio Ordinamento equivalenti.

	Foreign Candidates: Degrees equivalent to those indicated above.
ADMISSION TESTS	ASSESSMENT OF QUALIFICATIONS AND CURRICULUM VITAE, AND VIDEO CONFERENCE INTERVIEW During the interview, the candidate's language skills in English will be assessed. The interview is aimed at verifying the candidate's skills within the main study areas of the PhD programme, and his/her analysis, elaboration and communication abilities. The interview can be in English. During the interview, the candidate will discuss his/her proposal for a 3-year research project. In addition to the documents required in art. 3 of the notice of competition (*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*), 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.
ADMISSION TESTS FOR FOREIGN CANDIDATES APPLYING FOR RESERVED POSITIONS SUPPORTED BY A SCHOLARSHIP	ASSESSMENT OF QUALIFICATIONS AND CV, VIDEO CONFERENCE INTERVIEW The interview is aimed at verifying the candidate's skills within the main study areas of the PhD programme, and his/her analysis, elaboration and communication skills. The interview can be in English. During the interview, the candidate will discuss his/her proposal for a 3-year research project. In addition to the documents required in art. 3 of the notice of competition (*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*), 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. The candidate's language skills will be assessed through a short talk in English. Reference letters (up to 3) must be written in English, using the form available on the webpage https://unica.it/dottoratiricerca (How to apply for PhD selection: Guidelines and forms- Annex C), by a university professor or an expert in the research fields of the PhD programme, on letterhead of their institution, dated and signed. Evaluators will send their letters directly to the email address phdcall_referenceletter@unica.it (object: surname and name of the candidate being evaluated and name of the PhD programme for which he/she is applying).
TOPICS OF THE INTERVIEW	- 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 MUR PL, 1 of which reserved for foreign candidates with a degree awarded abroad
POSITIONS WITHOUT SCHOLARSHIP	1
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