TABLE 9 – PhD Programme in CLINICAL AND TRANSLATIONAL MEDICAL SCIENCES

THE PhD PROGRAMME	
Administrative location	University of Udine, Department of Medicine (DMED) –via Colugna 50, 33100 Udine, ITALY (tel. +39 0432 494301).
Associated location	University Health Enterprise Friuli Centrale (ASU FC) –via Pozzuolo 330, 33100 Udine.
Location for training, teaching and research activity	Teaching and other training activities will take place primarily at the administrative programme location or in other locations of the University of Udine. The research program will be mainly developed, with reference to the scholarship (see art. 11 and 14 of the Call) and/or to the supervisor assigned, at one of these locations: administrative location, associated location, financial supporter's location (if the financial supporter is an external institution).
Coordinator	Prof. Giuseppe Damante (giuseppe.damante@uniud.it)
Programme duration	3 years
Research topics	1 max 2 per SSD • Bio-behavioral investigations in nutrition and eating disorders. • Bio-behavioral investigations in neuropsychiatric and neurodevelopmental disorders • Equity, safety and quality of care and treatment in a global health logic. • Study of minor cardiovascular risk factors and their impact on renal and cardiac function and on the residual risk of cardiovascular diseas. • Mass spectrometry techniques for the identification of clinical phenotypes of diseas • Molecular mechanisms underlying neurodegenerative diseas. • Genetic and epigenetic mechanisms of disease. • Oxidative energy metabolism (respiratory, cardiovascular, microvascular/endothelial, muscular, mitochondrial functions) following disuse, in particular environmental conditions and in pathological conditions • Drugs for retinal diseas. • Analysis of neuromuscular and metabolic parameters associated with motor function, and study of the effects of physical exercise with and without combinatorial strategies for improving motor function itself. • Analysis of the effects of different types of training on aerobic and anaerobic physical capacity in healthy subjects and/or with stabilized chronic diseas. • Causal factors, mechanisms and effects of Unfinished Nursing Care • Effectiveness of continuing education strategies in healthcare professionals • Development of innovative tools for nutritional epidemiology • Impact of nutrition on the outcome of neuroinflammatory and neurodegenerative diseas. Evaluation through clinical-instrumental methods of functional performances (motor, cognitive and quality of life), biological markers of inflammation and changes in the intestinal microbiota. • Updating of the Food Composition Database for epidemiological studies in Italy. • Development of innovative nutritional databases • Mechanisms of blood pressure regulation and organ damage production in the action of adrenal hormones and the renin-angiotensin system. • Double beta-lactam in the therapy of infections: concept of PBP (penicillin binding protein) saturation. • Liquor biomarkers in the prognosis of central nervous system infections. • Neuroinflammation/neurodegeneration biomarkers • Microbiota-gut-brain axis: control of neuroinflammation/neurodegeneration and response to therapies. • Clinical integration of imaging-derived biomarkers, including artificial intelligence, in oncology. • Clinical integration of imaging-derived biomarkers, including artificial intelligence, in pulmonary pathology. • Clinical integration of imaging-derived biomarkers, including artificial intelligence, in rheumatology. • ICU acquired weakness strategies for diagnosis and therapy (nutrition hormones, microbiome). • Inflammatory states in the critical patient from phenotyping to personalized approach of therapies (biological therapies, metabolic modulation, extracorporeal purification technologies. • Solid organ transplants (liver and/or kidney) and acute renal failure, diagnosis, prevention, management. • Hemodynamic monitoring, new systems, risks-benefits, outcome, use. • Organizational research on health services and nursing organizational models. • Knowledge of the biological mechanisms underlying stemness and potential clinical uses, quality controls and regulations related to the use of stem cells for human use. • Tissue engineering and Regenerative Medicine.

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	• Regenerative medicine and mesenchymal stem cells in plastic surgery. Therapeutic potential in the wound care of difficult lesions and new perspectives. • Role of cathelicidin (LL-37) in foreign body reaction mechanisms and its clinical implication. • Inflammation and cardiovascular disease. • Tools for the treatment of infectious disease. • Heart and inflammation, molecular mechanisms of heart disease. • Treatment of advanced heart failure. • Cardiac valvular disease: pathophysiology, diagnosis and treatment. • Aortic disease: pathophysiology, diagnosis, treatment. • Classification systems of disease and health activities for public health purposes.
Research programmes	The research programs, if not already defined by funding organizations or specific funding lines, are decided by the Teaching Board within the PhD programme Research topics.
Programme website	https://www.uniud.it/en/research/do-research/doctorate-res/our-ph-d-programmes/area-life-science/scienze-mediche-cliniche-e-traslazionali/ph-d-programme/eng-scienze-mediche-cliniche-e-traslazionali?set_language=en

ADMISSION REQUIREMENTS	
Required degree	Italian Laurea (before DM 509/99) or Italian Laurea specialistica/magistrale (ex DM 509/1999 and DM 270/04) or equivalent degree obtained abroad. Foreign degrees and titles: refer to art. 4 and 5 of the Call.
Knowledge of the following foreign language	English

DOCUMENTS AND TITLES TO BE ATTACHED TO THE APPLICATION FOR ADMISSION	
Mandatory documents (art. 5 of the Call) UNDER PENALITY OF EXCLUSION	1. Certification or self-certification (pursuant to art. 5 c. 5 of the Call) of the academic qualification for admission to the doctoral program (Italian Laurea Specialistica/Magistrale or Italian Laurea before DM 509/99 or foreign degree). 2. Curriculum vitae et studiorum, dated and signed; 3. Copy of a valid identity document (citizens of countries not belonging to the European Union a copy of a valid passport, comprehensive of the pages containing the holder's photo, personal details, passport number, date and place of issue, date of expiry); 4. Research project: indication of the research topic chosen from those listed above and completed by a written motivation (max 1000 characters)
Optional documents (art. 5 of the Call)	1. Publications on impact factor journals (max 2); 2. Letters of reference (max 2) written by university professors, scientific researchers or other experts in the field (art. 6 of the Call).
All titles must be submitted exclusively in PDF format, dated and signed by the candidate.	

SELECTION COMMITTEE	
Appointed Members	Giuseppe Damante – Full Professor – University of Udine Leonardo Alberto Sechi – Full Professor – University of Udine Massimo Imazio – Associate Professor – University of Udine Stefano Lazzer – Associate Professor – University of Udine Mariarosaria Valente – Associate Professor – University of Udine
Substitute Members	Bruno Grassi – Full Professor – University of Udine Alvisa Palese – Full Professor – University of Udine Piercamillo Parodi - Full Professor – University of Udine Maria Parpinel – Associate Professor – University of Udine

ADMISSION

Competition procedure and test schedule		
Evaluation of qualifications and oral examination. For the evaluation, aimed at ascertaining the candidate's aptitude for scientific research and his/her basic preparation for the purposes of carrying out the course program, the Commission has 100 points, of which 30 points for the evaluation of qualifications and 70 points for the oral exam. Candidates who obtain at least 15 points in the evaluation of qualifications are admitted to the oral exam. Passing the oral exam requires obtaining at least 49 points. Eligibility for the doctoral course is achieved by passing the oral exam. For suitable candidates only, the score of the evaluation of qualifications will be added to the score obtained in the oral exam		
Foreign language that can be used for examination	Italian or English	
Evaluation Criteria of qualifications	Curriculum vitae and studiorum	*max.16*
	Scientific publications	*max.4*
	Letters of reference	*max.2*

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During the preliminary meeting the Selection Committee may establish sub-criteria for the evaluation	Brief motivations for the selected research topic	*max.8*
Oral examination	The oral exam will be held in Italian or English..	