



Document updated on 16/06/2021.

Addenda and corrections are written in red.

CALL FOR PHD POSITIONS – 37th CYCLE

PHD PROGRAMME IN EXPERIMENTAL MEDICINE AND THERAPY

Coordinator	Prof. Pasquale PAGLIARO
Department	Scienze Cliniche e Biologiche
Programme length	4 years
Programme website	https://dott-mts-en.campusnet.unito.it/do/home.pl#submenu
Programme start date	1 st November, 2021
Departments involved in the PhD programme	Dipartimento di Scienze Cliniche e Biologiche, Dipartimento di Scienze della Vita e Biologia dei Sistemi, Dipartimento di Biotecnologie Molecolari e Scienze per la Salute, Dipartimento di Oncologia, Dipartimento di Scienze Mediche, Dipartimento di Neuroscienze "Rita Levi Montalcini", Dipartimento di Scienze Chirurgiche, Dipartimento di Scienza e tecnologia del farmaco.

Positions offered by the PhD Programme¹	
n. 10 positions with scholarship, of which n. 1 reserved to candidates with international qualifications	of which: - n. 8 scholarships funded by the University of Torino; - n. 1 scholarship funded by IIGM and the Department of <i>Scienze Cliniche e Biologiche</i> - n. 1 scholarship funded by Centro Ricerche "Enrico Piaggio" of Università di Pisa and the Department of <i>Scienze Cliniche e Biologiche</i>

¹ Any additional scholarships and apprenticeship contracts (Legislative Decree no. 81/2015 art.45), which may become available after the publication of this Call, will be announced on the Doctoral School website [Partecipare al Bando/Submitting your application](#) until the Call's deadline.



CALL FOR NON-RESERVED (ORDINARY) POSITIONS

ADMISSION PROCEDURE

(qualifications, including research project + interview)

	Max	Score	Information/ documents	Application
QUALIFICATIONS		35		
Final grade Graduates in Italy		<i>max. 5</i>	<i>Final grade of the degree giving access to PhD</i> <i>110L >> 5; 108-110 >> 4; 105-107 >> 2; 102-104 >> 1.</i>	
Weighted average Graduands in Italy		<i>max. 5</i>	<i>Self-certification of exams taken – Laurea Magistrale/Master's Degree and weighted average</i> <i>30 >> 5; 27-30 >> 4; 24-26 >> 2; 21-23 >> 1.</i>	
CV Graduates in Italy Graduands in Italy		<i>max. 15</i>	<i>(as per the CV template)</i>	
CV Graduates abroad Graduands abroad		<i>max. 20</i>	<i>(as per the CV template)</i>	



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Publications	2	<i>max. 5</i>	<i>Publications will be evaluated only if they pertain to one of the scientific-disciplinary sectors (or European Research Council sectors) of the doctorate and if recognized as having high scientific value.</i>
Reference letters (<i>optional</i>)	2	0	
Research Project		<i>max. 10</i>	<i>4500 characters, included spaces and bibliography. Research Project must include: state of the art, objectives, expected developments and outcomes, bibliography.</i>
<i>Threshold to be admitted to the next examination</i>		17	
INTERVIEW		<i>max. 65</i>	<i>During the interview on topics related to the research project, the knowledge of the English language will be ascertained; the translation of a short scientific text for Italian students will be included.</i>
<i>Threshold to pass the interview (qualified for PhD)</i>		35	

CALL FOR POSITIONS RESERVED TO CANDIDATES HOLDING FOREIGN QUALIFICATIONS

ADMISSION PROCEDURE

(qualifications, including research project + interview)



UNIVERSITÀ DEGLI STUDI DI TORINO

	Max	Score	Information/ documents	Application
QUALIFICATIONS		max. 35		
CV Graduates abroad Graduands abroad		<i>max. 20</i>	<i>(as per the CV template)</i>	
Publications	2	<i>max. 5</i>	<i>Publications will be evaluated only if they pertain to one of the scientific-disciplinary sectors (or European Research Council sectors) of the doctorate and if recognized as having high scientific value</i>	
Reference letters <i>(optional)</i>	2	0		
Research Project		<i>max. 10</i>	<i>4500 characters, included spaces and bibliography. Research Project must include: state of the art, objectives, expected developments and outcomes, bibliography.</i>	
<i>Threshold to be admitted to the next examination</i>		17		
INTERVIEW		max. 65	<i>During the interview on topics related to the research project, the knowledge of the English language will be ascertained; the translation of a short scientific text for Italian students will be included.</i>	
<i>Threshold to pass the interview (qualified for PhD)</i>		35		



Research topics

PhD Programme in Experimental Medicine and Therapy

1. Alterazioni della funzionalità sinaptica dipendente dal calcio in patologie neurodegenerative / Calcium-dependent alterations of synaptic activity in neurodegenerative disorders (Referente Scientifico: **MARCANTONI Andrea**).
2. ApoE4 e la malattia di Alzheimer: l'impatto sulla reattività degli astrociti e il metabolismo del colesterolo / ApoE4 and Alzheimer's disease: impact on astrocyte reactivity and cholesterol metabolism (Referente Scientifico: **GAMBA Paola**).
3. Applicazioni Sperimentali del Condizionamento Remoto: Meccanismi di Protezione Contro i Danni Miocardici / Experimental Applications of Remote Conditioning: Mechanisms of Protection Against Myocardial Damage (Referente Scientifico: **PAGLIARO Pasquale**).
4. Approcci innovativi in farmacologia traslazionale / Translational Pharmacology approaches (Referente Scientifico: **BERTA Giovanni Nicolao**).
5. Caratterizzazione clinica, funzionale e biopatologica del fenotipo di asma neutrofilico e degli endotipi correlati: effetti dell'ipossia e dell'ipercapnia nella risposta indotta dai neutrofili sulle cellule epiteliali respiratorie / Clinical, functional and biological characterization of neutrophilic asthma phenotype and endotypes: effects of hypoxia and hypercapnia in the neutrophil-driven response of respiratory epithelial cells (Referente Scientifico: **RICCIARDOLO Fabio Luigi Massimo**).
6. Comprensione dei meccanismi molecolari e identificazione di trattamenti sperimentali per la deplezione muscolare indotta da tumori e/o chemioterapia / Understanding the molecular mechanisms and identification of prospective therapies for tumor- and chemotherapy-induced muscle wasting (Referente Scientifico: **PENNA Fabio**).
7. Epidemiologia eziologica della multimorbidità / Etiological epidemiology of multimorbidity (Referente Scientifico: **RICCERI Fulvio**).



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8. Induzione di differenziamento e apoptosi nelle leucemie mieloidi acute e croniche / Induction of differentiation and apoptosis in acute and chronic myeloid leukemic cells (Referente Scientifico: **FAVA Carmen**).
9. La radiomica e le sue applicazioni nei noduli polmonari identificati in corso di programmi di screening per il tumore polmonare. Radiomics and its applications in lung nodules identified in lung cancer screening programs (Referenti Scientifici: **NOVELLO Silvia** / **VELTRI Andrea**).
10. L'interazione cuore-cervello e le sue implicazioni per la depressione e lo stress post-traumatico / The brain-heart interplay and its implications for depression and post-traumatic stress (Referente Scientifico: **OSTACOLI Luca**).
11. Meccanismi coinvolti nella progressione fibrogenica delle epatopatie croniche e nella comparsa di carcinoma epatocellulare / Mechanisms involved in the fibrogenic progression of chronic liver diseases and the development of hepatocellular carcinoma (Referente Scientifico: **PAROLA Maurizio**).
12. Meccanismi molecolari di chemioresistenza in diversi modelli di cellule tumorali / Molecular mechanisms of chemoresistance in different models of cancer cells (Referente Scientifico: **PIZZIMENTI Stefania**).
13. Modelli in vitro di arteriopatia non aterosclerotica / In vitro models of not atherosclerotic arteriopathy (Referente Scientifico: **MAURO Alessandro**).
14. Nuove strategie protettive con metaboliti bioattivi vegetali nei confronti della sindrome metabolica / Novel protective strategies with plant-derived bioactive metabolites against metabolic syndrome (Referente Scientifico: **GALLO Maria Pia**).
15. Recenti progressi in Ortognatodonzia e Gnatologia, Funzione Masticatoria e Postura del Rachide. Materiali odontoiatrici / Recent advances in Orthognathodontics and Gnathology, Masticatory Function and Spine Posture. Dental Materials (Referente Scientifico: **PIANCINO Maria Grazia**).
16. RNA non codificanti come marcatori in campioni di feci per un approccio di medicina di precisione: uno studio sull'insorgenza e la progressione del cancro del colon-retto / Non-coding RNA markers in stool samples for a precision medicine approach: a study on colorectal cancer onset and progression (Referente Scientifico: **COSTELLI Paola** and **NACCARATI Alessio**).
(Research project linked to the position with scholarship funded by IIGM and the Department of Scienze Cliniche e Biologiche).
17. Ruolo della dieta nella patogenesi e nel trattamento delle malattie intestinali associate ad infiammazione / Role of diet in the pathogenesis and treatment of inflammation-related gut diseases (Referente Scientifico: **BIASI Fiorella**).



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18. Ruolo emergente dei prodotti di glicazione avanzata nella comparsa dei disordini metabolici / Emerging role of advanced glycated endproducts in the insight of metabolic disorders (Referente Scientifico: **ARAGNO Manuela**).
19. Significato prognostico degli RNA circolari nelle malattie oncoematologiche / Prognostic significance of circRNAs in hematological malignancies (Referente Scientifico: **CILLONI Daniela**).
20. Sistema nervoso periferico: lesione, riparazione e rigenerazione / Peripheral nervous system: injury, repair and regeneration (Referente Scientifico: **RAIMONDO Stefania**).
21. Trattamenti Ortognatodontici Conservativi e Chirurgici; Aspetti Biomolecolari / Orthognathodontics and Surgical Orthognathic Treatment; Biomolecular aspects (Referente Scientifico: **PIANCINO Maria Grazia**).
22. Valutazioni dei profili intracellulari e tissutali dei chemioterapici / Evaluation of intracellular and tissue profiles of chemotherapeutics (Referente Scientifico: **D'AVOLIO Antonio**).
23. Vescicole Extracellulari: Biomarcatori e Strumenti Terapeutici nelle Malattie Cardiovascolari / Extracellular Vesicles as Biomarkers and Therapeutic Tools in Cardiovascular Diseases (Referente Scientifico: **PENNA Claudia**).
24. Indici TMS/EEG come biomarcatori diagnostici e prognostici di dissociazione/disintegrazione / TMS/EEG indexes as diagnostic and prognostic biomarkers of dissociation/disintegration (Referenti Scientifici: **OSTACOLI Luca e VALENZA Gaetano**). (Research topic linked to the position with scholarship co-funded by Centro Ricerche "Enrico Piaggio" of Università di Pisa and by Department of Scienze Cliniche e Biologiche).