



**"Annex 4" updated on 2<sup>nd</sup> April 2019**  
(The updates are highlighted in red colour)

**ANNEX 4**

**CALL FOR PHD POSITIONS – 35 cycle**

**PHD PROGRAMME IN MEDICAL PHYSIOPATHOLOGY**

<b>PhD Programme Coordinator</b>	Prof. Franco Veglio
<b>Department</b>	Medical Sciences
<b>PhD Programme Length</b>	3 years
<b>PhD web site</b>	<a href="http://dott-fisiopatologia.campusnet.unito.it">http://dott-fisiopatologia.campusnet.unito.it</a>
<b>Course start date</b>	1 <sup>st</sup> November 2019
<b>Departments involved in PhD programme</b>	Department of Medical Sciences, Department of Molecular Biotechnologies and Health Sciences, Department of Surgical Sciences

<b>Positions offered <sup>1</sup></b>	
n. 9 positions with scholarship, of which n. 1 reserved to candidates with international qualifications	of which: <ul style="list-style-type: none"><li>- -n. 6 scholarships funded by the university</li><li>- -n. 3 scholarships funded by School of Medicin Como-Turco, in memory of Prof. Gian Luigi Turco (rif. Simonetta Maria Como)</li></ul>
n. 3 positions without financial support	
n. 1 position reserved to students selected within the International Mobility Programme 2020- MSCA-ITN- 2017, RenalToolBox project.	

***Titles of Research Projects / Research Fields***

The list of research projects is available is at the end of this PhD Programme's annex. This list may be updated until Call's deadline.

***Calendar of entrance examinations***

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<sup>1</sup> All 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 University websites <http://www.unito.it/ricerca/fare-ricerca-unito/dottorati-di-ricerca> and <http://en.unito.it/research/phd/phd-programmes> until Call's deadline.



# UNIVERSITÀ DEGLI STUDI DI TORINO

The calendar with information on dates and venues of entrance examinations shall be published on the websites: <http://www.unito.it/ricerca/fare-ricerca-unito/dottorati-di-ricerca> and <http://en.unito.it/research/phd/phd-programmes> starting from **9<sup>th</sup> April 2019**

## *Useful information for applicants*

**Application fee: €50.00 for each application submitted.**

Candidates with international qualifications are exempted from paying the application fee.

**Application fee deadline: 16<sup>th</sup> April 2019.**

Candidates who do not pay the application fee within the deadline will be excluded from the competition.

<b>CALL FOR NON-RESERVED (ORDINARY) POSITIONS</b>	
<b>Admission procedure for non-reserved (ordinary) positions</b>	
Assessment of qualifications and interview	
<b>Qualifications to be uploaded in the on-line application</b>	
<ul style="list-style-type: none"><li>• Application form (duly signed and including identification document/passport);</li><li>• For applicants with international qualifications: submit on-line documentation as specified in Art. 4 of this Call;</li><li>• For applicants under condition: provision of Bachelor's degree grade, certificate or self-certification with a complete list of academic transcripts concerning the 1<sup>st</sup> cycle degree (Laurea Triennale) and 2<sup>nd</sup> cycle degree (Laurea Magistrale) with marks, weighted average and credits. For applicants applying under condition, please also check Art. 5 of the Call.</li><li>• Research project (max 4000 words, bibliography included) written by the candidate choosing among those listed and offered by the Doctorate</li><li>• Thesis abstract</li><li>• Publications (max. 3)</li></ul>	
<b>Assessment criteria (for non-reserved positions)</b>	<b>maximum score 100 points</b>
<b>Assessment of qualifications:</b>	<b>maximum score 30 points</b>
Final grade of Master/2 <sup>nd</sup> cycle degree (or weighted average with list of examinations taken during the 1 <sup>st</sup> cycle degree and the Master's degree/2 <sup>nd</sup> cycle degree for candidates applying under condition)  <ul style="list-style-type: none"><li>• 110-110L or weighted average of transcripts &gt;28/30 14 points</li><li>• from 107 to 109: 13 points</li><li>• from 104 to 106 or weighted average of</li></ul>	maximum score 14 points



# UNIVERSITÀ DEGLI STUDI DI TORINO

<p>transcripts 27-28/30: 12 points</p> <ul style="list-style-type: none"> <li>• from 100 to 103: 11 points</li> <li>• = &lt; 99 or weighted average of transcripts &lt; 27/30: 10 points</li> </ul> <p>Candidates with international qualifications will be assessed considering their Curriculum studiorum and vitae (as per information provided in the Application Form) and not exclusively according to the score of the Master's degree.</p>	
Thesis abstract	maximum score 5 points
<p>Publications :</p> <p>2 points for each publication</p> <p>(max 3 publications already published will be assessed)</p>	maximum score 6 points
<p>Other qualifications:</p> <p>Second/additional master degree: 5 points</p> <p>Italian specialising master 1<sup>st</sup> and 2<sup>nd</sup> level degree if relevant: 4 points</p> <p>Any other pertinent specialising courses: 4 points</p> <p>International research stage, at least 3 months: 3 points</p>	maximum score 5 points
<i>Minimum threshold for admission to the interview</i>	<i>18 points</i>
<b>Interview</b>	<b>Maximum score: 70 points</b>
<i>Minimum threshold for passing the interview</i>	<i>40 points</i>
<p><b>Further information on examinations:</b></p> <p>During the <b>interview</b> candidates will discuss the <b>research project</b> (max 4000 words, bibliography included) written by the candidate choosing among those listed and offered by the Doctorate. Candidates are allowed to support their discussion with reference materials.</p> <p>Candidates may, on request and upon authorisation of the Board, sustain the interview via Skype.</p>	



(See art. 8 of the Call).

## CALL FOR POSITIONS RESERVES TO APPLICANTS WITH INTERNATIONAL QUALIFICATIONS

### Admission procedure for positions reserved to applicants with international qualifications

Assessment of qualification and research project

### Qualifications to be uploaded in the on-line application

- Application form (including identification document/passport)
- For international qualifications: submit on-line documentation as specified in Art. 4 of this Call. For applicants applying under condition, please check Art. 5
- Research project (max 4000 words, bibliography included). Candidates are required to choose a title from those offered by the PhD Programme and write the project proposal on that topic.
- Thesis Abstract
- Publications (max. 4)

### Assessment criteria for positions reserved to applicants with international qualifications

maximum score 100 points

Curriculum studiorum and vitae (as by the information provided in the Application Form)

maximum score 40 points

Thesis abstract

maximum score 10 points

Publications:  
3 points for each publication  
(max 4 publications already published will be assessed)

maximum score 10 points

Research project

maximum score 30 points

Other qualifications:

maximum score 10 points

Second/additional master degree: 5 points

Italian specialising master 1<sup>st</sup> and 2<sup>nd</sup> level degree if relevant: 10 points

Any other pertinent specialising courses: 10 points

*Minimum threshold for admission*

*70 points*



## **Further information on assessment on reserved positions**

Candidates are required to write the research project (max 4000 words, bibliography included) choosing a title from those offered by the PhD Programme.

The Examining Board will evaluate the scientific dimension of the project, its feasibility, target setting, scientific impact of outcomes.

All courses are held in English language.

## **Titoli progetti di ricerca**

### **Dottorato di Ricerca in Fisiopatologia Medica**

## **Titles of research projects**

### **PhD Programme in Medical Physiopathology**

- 1) La radiomica in medicina nucleare e nell'imaging ibrido per la eterogeneità delle neoplasie: potenziale diagnostico e prognostico/Radiomics in Nuclear Medicine and hybrid imaging for heterogeneity of solid tumors: diagnostic and prognostic potential. (*Supervisor Prof.ssa Deandreis*)
- 2) Obesità, dieta e miRNA circolanti/Obesity, diet and circulating miRNA. (*Supervisor Prof.ssa Durazzo*)
- 3) Targeting di IL-3R per riprogrammare il microambiente tumorale e le cellule staminali neoplastiche/Targeting IL-3R to reprogram tumor microenvironment and cancer-stem cells. (*Supervisor Prof.ssa Brizzi*).
- 4) Miglioramento della diagnosi precoce delle lesioni neoplastiche e pre-neoplastiche del tratto digerente superiore mediante tecniche di endoscopia avanzata e microscopia in vivo/Improvement of early diagnosis for pre-neoplastic and neoplastic lesion of upper GI tract by endoscopy and laser con-focal endomicroscopy. (*Supervisor Prof.ssa Bugianesi*).
- 5) Impatto del Microbioma intestinale sulla gestione clinica dei pazienti critici /Impact of gut Microbioma on clinical management of critical patients. (*Supervisor Prof.ssa Cavallo*).
- 6) Effetti della dieta time-restricted sugli outcome metabolici in pazienti affetti da obesità./Effects of time restricted feeding on metabolic outcomes in patients with obesity. (*Supervisor Prof. Broglio*).



## UNIVERSITÀ DEGLI STUDI DI TORINO

- 7) Effetto dei GH-antagonisti nei tumori ipofisari secernenti e non./Effect of GH-anatagonists in secreting and not secreting pituitary tumors. (*Supervisor Prof.ssa Granata*).
- 8) Evoluzione clonale e resistenza alle terapie nei tumori coloretali./Clonal evolution and therapeutic resistance in colorectal cancer. (*Supervisor Prof. Trusolino*).
- 9) Fattori predittivi all'imaging funzionale di risposta a terapie innovative in oncologia/Predictive Factors at functional imaging of response to innovative therapy in cancer. (*Supervisor Prof.ssa Deandreis*).
- 10) Effetto terapeutico di vescicole extracellulari ingegnerizzate con Klotho nel danno renale/Therapeutic effect of Klotho engineered extracellular vesicles in renal damage. (*Supervisor Prof.ssa Bussolati*).
- 11) Il danno d'organo clinico o subclinico nelle emergenze ipertensive:trial clinic randomizzato controllato. The clinical or subclinical target organ damage in hypertensive emergencies: a randomised controlled clinical trial (*Supervisor Prof. Veglio*).
- 12) Indicatori di perfomance neuromuscolare per la predizione del rischio di patologia muscolo-tendinea nello sportivo/Neuromuscular perfomance markers for tendinous muscle pathology risk predictability in athletic. (*Supervisor Prof. Ghigo*).
- 13) Trattamento precoce verso convenzionale della sindrome epatorenale con terlipressina e albumina in pazienticon cirrosi epatica: trial clinico randomizzato controllato/Early versus conventional treatment of hepato-renal syndrome by terlipressin and albumin in patients with liver cirrhosis: a randomised controlled clinical trial. (*Supervisor Prof.ssa Bugianesi*).
- 14) Approccio mediante rete neurale artificiale per individuare i piani di gioco e la performance neuromuscolare negli sport di squadra/An artificial neural network approach to pinpoint game plans and neuromuscular performance in team sports. (*Supervisor Prof. Rainoldi*).
- 15) Metilazione tissutale come marcatore di diagnosi e prognosi in patologia benigna e tumorale prostatica/Tumor and benign prostate tissue methylation markers for prostate cancer diagnosis and prognosis. (*Supervisor Prof.ssa Maule*).
- 16) Implementazione di un progetto di infection control per la riduzione dell'incidenza delle infezioni da enterobatteri produttori di carbapenemasi (CRE)" / Implementation of an infection control program to reduce the incidence of infections caused by carbapenemase producing enterobacteriaceae" (*Supervisor: Prof FG De Rosa*)