"Annex 4" updated on 10<sup>th</sup> April 2019 (The updates are highlighted in red colour)

**ANNEX 4** 

# CALL FOR PHD POSITIONS – 35° cycle PHD PROGRAMME IN BIOMEDICAL SCIENCES AND ONCOLOGY

PhD Programme Coordinator	Prof. Emilio Hirsch	
Department	Biotecnologie Molecolari e Scienze della Salute	
PhD Programme Length	4 years	
PhD web site	http://dott-sbou.campusnet.unito.it/do/home.pl	
Course start date	1 <sup>st</sup> November 2019	
Departments involved in PhD programme	Dipartimento di Biotecnologie Molecolari e	
	Scienze per la Salute, Dipartimento di	
	Oncologia, Dipartimento di Scienze della Sanità	
	Pubblica e Pediatriche, Dipartimento di Scienze	
	Chirurgiche, Dipartimento di Scienze Mediche,	
	Dipartimento di Scienze Cliniche e Biologiche.	

Positions offered by the PhD Programme <sup>1</sup>		
n. 8 positions with scholarship, of which n. 1 reserved to candidates with international qualifications	of which: -n. 6 scholarship funded by the University -n. 2 scholarship funded by the Department of Medical Sciences (under project "Dipartimenti di Eccellenza")	
n. 2 positions without financial support  n. 1 position reserved to students selected with	in specific international mobility programmes or	

n. 1 position reserved to students selected within specific international mobility programmes or within specific agreements in which the University of Torino is involved: CSC « China Scholarship Council »

### Titles of Research Projects / Research Fields

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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

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

#### Calendar of entrance examinations:

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 <a href="http://en.unito.it/research/phd/phd-programmes">http://en.unito.it/research/phd/phd-programmes</a> 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 (mandatory deadline)** Candidates who do not pay the application fee within the deadline will be excluded from the competition.

#### CALL FOR NON-RESERVED/ORDINARY POSITIONS

### Admission procedure for non-reserved/ordinary positions

Assessment of qualifications, written examination and interview

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

- Application form (duly signed and including identification document/passport)
- For applicants with international qualifications: submit on-line documentation as specified in Art. 4 of this Call;
- 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.
- Thesis Abstract
- Publications

Assessment criteria (for non-reserved positions)	maximum score 100 points	
Assessment of qualifications:	maximum score 20 points	
Final grade of second cycle degree:	maximum score 5 points	
•110-110L5 points		
•107-109 4 points		
•104-106 3 points		
•100-103 2 points		
• <u>&lt;</u> 99 1 point		
Weighted average of the examinations taken during the		
Laurea Magistrale (2nd cycle degree) and Laurea Triennale		
(1st cycle degree) if applying under condition:		
•Average equal to 30/30 5 points		

*Average equal to 29/30	A	T
<ul> <li>Average equal to 27/30</li></ul>	•Average equal to 29/30 4 points	
<ul> <li>Average &lt; 27/30</li></ul>	,	
The average is rounded up if the decimal part is ≥ 0.5, otherwise it is rounded down.  Thesis abstract  Publications  Publications will be assessed only if relevant to the PhD programme and if their scientific dimension is well-recognised; not yet published works will not be evaluated, as well as master thesis or other works if not published.  If the above requirements are met, publications will be evaluated as follows:  Publications (with IF): up to 1 point each  Posters for congresses: 0.5 points each  Communications at conferences: 0.5 points each  Communications  Titles relating to professional skills, not pertinent with the research activity, will not be evaluated. If completed, the following will be assessed:  Second/additional master degree: 1 point  Any other pertinent specialising course: 1 point  Italian specialising master 1 <sup>st</sup> and 2 <sup>nd</sup> level degree if relevant: 0.5 points  Written examination  Maximum score: 40 points  Minimum threshold for admission to the interview  Maximum score: 40 points  Interview  Maximum score: 40 points		
otherwise it is rounded down.  Thesis abstract maximum score 8 points  Publications maximum score 4 points  Publications will be assessed only if relevant to the PhD programme and if their scientific dimension is well-recognised; not yet published works will not be evaluated, as well as master thesis or other works if not published.  If the above requirements are met, publications will be evaluated as follows:  Publications (with IF): up to 1 point each  Posters for congresses: 0.5 points each  Communications at conferences: 0.5 points each  Other qualifications  Titles relating to professional skills, not pertinent with the research activity, will not be evaluated. If completed, the following will be assessed:  Second/additional master degree: 1 point  Any other pertinent specialising course: 1 point  Italian specialising master 1st and 2nd level degree if relevant: 0.5 points  Written examination  Maximum score: 40 points  Minimum threshold for admission to the interview  Maximum score: 40 points  Minimum threshold for admission to the interview  Maximum score: 40 points	• Average < 27/30 1 points	
Thesis abstract  Publications  Publications will be assessed only if relevant to the PhD programme and if their scientific dimension is well-recognised; not yet published works will not be evaluated, as well as master thesis or other works if not published.  If the above requirements are met, publications will be evaluated as follows:  Publications (with IF): up to 1 point each Posters for congresses: 0.5 points each Communications at conferences: 0.5 points each Communications  Titles relating to professional skills, not pertinent with the research activity, will not be evaluated. If completed, the following will be assessed:  Second/additional master degree: 1 point Any other pertinent specialising course: 1 point Italian specialising master 1st and 2rd level degree if relevant: 0.5 points  Written examination  Maximum score:  40 points  Minimum threshold for admission to the interview  Maximum score:  40 points	The average is rounded up if the decimal part is $\geq$ 0.5,	
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Publications Publications will be assessed only if relevant to the PhD programme and if their scientific dimension is well-recognised; not yet published works will not be evaluated, as well as master thesis or other works if not published.  If the above requirements are met, publications will be evaluated as follows:  • Publications (with IF): up to 1 point each  • Posters for congresses: 0.5 points each  • Communications at conferences: 0.5 points each  • Communications  Titles relating to professional skills, not pertinent with the research activity, will not be evaluated. If completed, the following will be assessed:  Second/additional master degree: 1 point  Any other pertinent specialising course: 1 point  Italian specialising master 1st and 2nd level degree if relevant: 0.5 points  Written examination  Maximum score: 40 points  Maximum score: 40 points  Maximum score: 40 points		
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programme and if their scientific dimension is well-recognised; not yet published works will not be evaluated, as well as master thesis or other works if not published.  If the above requirements are met, publications will be evaluated as follows:  • Publications (with IF): up to 1 point each • Posters for congresses: 0.5 points each • Communications at conferences: 0.5 points each  Other qualifications  Titles relating to professional skills, not pertinent with the research activity, will not be evaluated. If completed, the following will be assessed:  Second/additional master degree: 1 point  Any other pertinent specialising course: 1 point  Italian specialising master 1st and 2nd level degree if relevant: 0.5 points  Minimum threshold for admission to the next examination  Maximum score: 40 points  Minimum threshold for admission to the interview  Interview  Maximum score: 40 points	Publications	maximum score 4 points
evaluated as follows:  • Publications (with IF): up to 1 point each  • Posters for congresses: 0.5 points each  • Communications at conferences: 0.5 points each  Other qualifications  Titles relating to professional skills, not pertinent with the research activity, will not be evaluated. If completed, the following will be assessed:  Second/additional master degree: 1 point  Any other pertinent specialising course: 1 point  Italian specialising master 1st and 2nd level degree if relevant: 0.5 points  Minimum threshold for admission to the next examination  Maximum score: 40 points  Minimum threshold for admission to the interview  Interview  Maximum score: 40 points	programme and if their scientific dimension is well-recognised; not yet published works will not be evaluated, as	
<ul> <li>Posters for congresses: 0.5 points each</li> <li>Communications at conferences: 0.5 points each</li> <li>Other qualifications</li> <li>Maximum score 3 points</li> <li>Titles relating to professional skills, not pertinent with the research activity, will not be evaluated. If completed, the following will be assessed:</li> <li>Second/additional master degree: 1 point</li> <li>Any other pertinent specialising course: 1 point</li> <li>Italian specialising master 1<sup>st</sup> and 2<sup>nd</sup> level degree if relevant: 0.5 points</li> <li>Written examination</li> <li>Maximum score: 40 points</li> <li>Interview</li> <li>Maximum score: 40 points</li> </ul>		
Communications at conferences: 0.5 points each  Other qualifications  Titles relating to professional skills, not pertinent with the research activity, will not be evaluated. If completed, the following will be assessed:  Second/additional master degree: 1 point  Any other pertinent specialising course: 1 point  Italian specialising master 1st and 2nd level degree if relevant: 0.5 points  Minimum threshold for admission to the next examination  Maximum score: 40 points  Minimum threshold for admission to the interview  Interview  Maximum score: 40 points	Publications (with IF): up to 1 point each	
Other qualifications  Titles relating to professional skills, not pertinent with the research activity, will not be evaluated. If completed, the following will be assessed:  Second/additional master degree: 1 point  Any other pertinent specialising course: 1 point  Italian specialising master 1st and 2nd level degree if relevant: 0.5 points  Minimum threshold for admission to the next examination  Maximum score: 40 points  Minimum threshold for admission to the interview  Interview  Maximum score: 40 points	Posters for congresses: 0.5 points each	
Titles relating to professional skills, not pertinent with the research activity, will not be evaluated. If completed, the following will be assessed:  Second/additional master degree: 1 point  Any other pertinent specialising course: 1 point  Italian specialising master 1st and 2nd level degree if relevant: 0.5 points  Minimum threshold for admission to the next examination  Written examination  Maximum score: 40 points  Interview  Maximum score: 40 points	Communications at conferences: 0.5 points each	
research activity, will not be evaluated. If completed, the following will be assessed:  Second/additional master degree: 1 point  Any other pertinent specialising course: 1 point  Italian specialising master 1st and 2nd level degree if relevant: 0.5 points  Minimum threshold for admission to the next examination  Maximum score: 40 points  Minimum threshold for admission to the interview  Interview  Maximum score: 40 points	Other qualifications	Maximum score 3 points
Any other pertinent specialising course: 1 point  Italian specialising master 1 <sup>st</sup> and 2 <sup>nd</sup> level degree if relevant: 0.5 points  Minimum threshold for admission to the next examination  Maximum score: 40 points  Minimum threshold for admission to the interview  Interview  Maximum score: 40 points	research activity, will not be evaluated. If completed, the	
Italian specialising master 1st and 2nd level degree if relevant: 0.5 points  Minimum threshold for admission to the next examination  Written examination  Maximum score:  40 points  Interview  Maximum score:  40 points	Second/additional master degree: 1 point	
<ul> <li>0.5 points</li> <li>Minimum threshold for admission to the next examination</li> <li>Written examination</li> <li>Maximum score: 40 points</li> <li>Minimum threshold for admission to the interview</li> <li>Interview</li> <li>Maximum score: 40 points</li> </ul>	Any other pertinent specialising course: 1 point	
Written examination  Maximum score: 40 points  Minimum threshold for admission to the interview  30 points  Interview  Maximum score: 40 points	, ,	
Minimum threshold for admission to the interview  30 points  Interview  Maximum score: 40 points	Minimum threshold for admission to the next examination	10 points
Interview Maximum score: 40 points	Written examination	Maximum score: 40 points
	Minimum threshold for admission to the interview	30 points
Minimum threshold for passing the interview 30 points	Interview	Maximum score: 40 points
	Minimum threshold for passing the interview	30 points



#### Further information on examinations:

Knowledge of the English language is compulsory.

The interview, on request of the candidate and duly authorised by the examining board, may be taken via Skype (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 qualifications.

Candidates may be contacted by the examining board for a Skype interview for further information about the submitted documentation. Candidates must therefore specify a <u>Skype account</u> in their **Application form**.

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

- Application form (duly signed and 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
- Abstract thesis
- Publications

Assessment criteria for positions reserved to students with international qualifications	maximum score 100 points
Curriculum studiorum and vitae as per	maximum score 20 points
information provided in the APPLICATION FORM	
Thesis Abstract	maximum score 50 points
Publications and other qualifications	maximum score 30 points
Minimum threshold for admission	50 points

### Further information on examinations for reserved positions.

Candidates may be contacted by the examining board for a Skype interview for further information about the submitted documentation. Candidates must therefore specify a <a href="Skype account">Skype account</a> in their application form.



### Titoli progetti di ricerca Dottorato di Ricerca in Scienze Biomediche ed Oncologia

### Titles of research projects

### PhD Programme in Biomedical Sciences and Oncology

- 1) Immunoterapia e terapie a bersaglio molecolare nei tumori solidi: modelli preclinici e potenziali sinergismi. / Immunotherapy and molecular targeted approaches in solid tumors: Experimental Models and Potential Synergism. (Curriculum Oncologia Umana)
- 2) Approccio molecolare multimodale per l'identificazione di marcatori predittivi di risposta alla terapia in tumori solidi. / Multimodal molecular approach for the identification of therapeutic predictive marker in solid tumors. (Curriculum Immunoterapia)
- 3) Caratterizzazione molecolare di neoplasie rare. / "Molecular characterization of rare neoplasia. (Curriculum Immunoterapia)
- 4) Preparazione e validazione di aptameri come veicolo di farmaci e di microRNA nella terapia di neoplasie e ematologie. / Preparation and validation of aptamers as miRNA and drug carriers in neoplastic and hematological diseases. (Curriculum Immunoterapia)
- 5) Genetica ed epigenetica delle malattie rare e applicazioni terapeutiche. / Genetic and epigenetic definition of rare disease and clinical potential definition. (Curriculum Genetica)
- 6) Genetica ed epigenetica delle cellule staminali nella medicina rigenerativa. / Genetic and epigenetic of stem cells in regenerative medicine. *(Curriculum Genetica)*
- 7) Basi genetiche dell'individualità, interazione geni-ambiente ed epigenomica delle patologie complesse, della risposta immune e dei trapianti. / Genetic basis of individuality, gene-environment interaction and epigenomic of complex diseases, immune response and transplant. (Curriculum Genetica)
- 8) Meccanismi di segnalazione recettoriale nei processi fisiopatologici. / Receptor-mediated signalling pathways in fisopathology. *(Curriculum Genomica)*
- 9) Inquadramento diagnostico e cure dei pazienti con quadri pediatrici complessi. / Diagnostic classification and treatment of pediatric patients with complex clinical manifestation. (Curriculum Pediatria sperimentale)



- 10) Ruolo delle cellule staminali nell'endometriosi. / Role of stem cells in endometriosis. (Curriculum Metodologie Cliniche)
- 11) Espressione genica delle cellule della granulosa. / Gene expression of granulosa cells. (Curriculum Metodologie Cliniche)
- 12) Ruolo delle Cellule Mesenchimali Staminali Placentari nel "Fetal Programming". / Role of mesenchimal Stem Cells from placental in "Fetal reprogramming". (Curriculum Metodologie Cliniche)
- 13) Indici biomolecolari predittivi di risposta al trattamento neoadiuvante nel carcinoma della mammella e possibilità di riduzione dell'impatto chirurgico. / Biomolecular indexes predicting the response to neoadjuvant treatment in breast cancer and the possibility of reducing the surgical impact.
- 14) Ruolo della GTPase Rac1 in neuroni corticali: rimodulazione del pathway via Protein:Protein interaction per revertire i fenotipi di Disabilità Intellettuale. / Role of GTPase Rac1 in cortical neurons: remodulation of the pathway via Protein: Protein interaction to revert the phenotypes of Intellectual Disability.
- 15) Medicina di precisione applicata ai trapianti di organo solido. *(research project linked to the scholarship funded by "Department of Medical Sciences" under project "Dipartimenti di eccellenza")*
- 16) Sviluppo di pipeline di sequenziamento di nuova generazione in patologie monogeniche e complesse. (research project linked to the scholarship funded by "Department of Medical Sciences" under project "Dipartimenti di eccellenza"))