



## CALL FOR PHD POSITIONS – 36<sup>th</sup> cycle PHD PROGRAMME IN BIOLOGICAL SCIENCES AND APPLIED BIOTECHNOLOGIES

PhD Programme Coordinator	Prof. Silvia Perotto
Department	Life Sciences and Systems Biology
PhD Programme Length	3 years
PhD website	<a href="http://dott-sbba.campusnet.unito.it/do/home.pl">http://dott-sbba.campusnet.unito.it/do/home.pl</a>
Course start date	1 <sup>st</sup> October, 2020
Departments involved in PhD programme	Department of Life Sciences and Systems Biology/Department of Agricultural, Forest and Food Sciences

Positions offered <sup>1</sup> by the PhD Programme	
n. 6 positions with scholarships, of which n. 1 reserved to candidates with international qualifications	of which: - n. 6 funded by the University of Torino
n. 2 positions without scholarship	

CALL FOR NON-RESERVED (ORDINARY) POSITIONS	
<b>Admission procedure for non-reserved (ordinary) positions</b>	
Assessment of qualifications, research project and interview	
<b>Qualifications to be uploaded in the online application</b>	
<ul style="list-style-type: none"><li>• The research project</li><li>• Thesis Abstract of 2<sup>nd</sup> Cycle Degree</li><li>• Publications (max. 5)</li></ul>	
<b>Assessment criteria for non-reserved positions</b>	<b>Maximum score 100 points</b>
<b>Assessment of qualifications:</b>	<b>maximum score 20 points</b>
<b>Final grade of second cycle degree:</b> 110 - 110L __ 12 points 107 to 109 __ 10 points 104 to 106 __ 8 points 100 to 103 __ 6 points ≤ 99 _____ 4 points	maximum score 12 points

<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 [Dottorati di Ricerca](#) and [PhD](#) until Call's deadline.



<p><b>Weighted average</b> of marks for examinations taken during the Laurea Magistrale/2nd cycle degree, for candidates applying under condition:</p> <p>≥ 29/30 _____ 12 punti          27/30 to 28/30 __ 10 punti          25/30 to 26/30 ___ 8 punti          23/30 to 24/30 ___ 6 punti          &lt; 23/30 _____ 4 punti</p>	
<p><b>Thesis abstract of 2<sup>nd</sup> Cycle Degree</b></p>	<p>maximum score 3 points</p>
<p><b>Publications</b></p> <ul style="list-style-type: none"> <li>- 1 point for each JCR publication (Only published papers or papers already accepted for publication will be evaluated).</li> </ul> <p>Publications will be evaluated only if relevant to the PhD programme</p>	<p>maximum score 3 points</p>
<p><b>Other qualifications</b></p> <p>Qualifications relevant to the research activities will be evaluated, including:</p> <ul style="list-style-type: none"> <li>- Second/additional master degree</li> <li>- Italian specialising master 1<sup>st</sup> and 2<sup>nd</sup> level degree, or equivalent title, if relevant to the PhD Programme</li> <li>- Non-academic Master</li> <li>- Post-graduation research periods (supported by a declaration of the hosting laboratory)</li> <li>- Any other pertinent specialising course</li> <li>- Communications to congresses and non-JCR publications</li> </ul> <p><i>Qualifications related to merely professional skills, not pertinent to the research activity, will not be evaluated</i></p>	<p>maximum score 2 points</p>
<p><b>Minimum threshold for admission to the next examination</b></p>	<p><b>12 points</b></p>
<p><b>Research project</b> (max. 1000 words, bibliography excluded) must be written by the candidate in English, choosing a title within those indicated by the PhD Programme</p>	<p><b>maximum score 20 points</b></p>
<p><b>Minimum threshold for admission to the interview</b></p>	<p><b>12 points</b></p>
<p><b>Interview</b></p>	<p><b>maximum score 60 points</b></p>
<p><b>Minimum threshold for passing the interview</b></p>	<p><b>36 points</b></p>
<p><b>Further information on examinations:</b></p> <p><b>Thesis abstract</b> (max 400 words). The candidate must develop the following points:</p> <p>a) purpose of the thesis;</p>	



- b) methods used;
- c) results achieved

Moreover, the name of the supervisor must be indicated.

The **research project** (max 1000 words, bibliography excluded) must be written by the candidate in English. Candidates are required to choose a title within those offered by the PhD programme. The candidate must develop the following points:

- a) state of the art of the chosen topic;
- b) targets of the project;
- c) research plan over the three years.

The examining board will evaluate the scientific dimension of the project, its feasibility related to the length of the PhD, the targets identified, the scientific impact of outcomes.

The **interview** will cover the qualifications and the publications submitted by the candidates, their studies and professional curricula, their scientific and cultural interests and will assess the level of basic knowledge of the subjects involved in the PhD Programme.

The interview will cover the presentation and the discussion of the research project, and the examination board will focus on:

- level of general knowledge of the subject and the ability to present it;
- level of knowledge of the topic of the research project;
- originality and interdisciplinarity of the research proposal.

Knowledge of the (scientific) English language is compulsory. Language skills will be assessed during the interview that will be conducted, at least in part, in English.

## CALL FOR POSITIONS RESERVED TO APPLICANTS WITH INTERNATIONAL QUALIFICATIONS

### Admission procedure

Assessment of qualifications and research project

### Qualifications to be uploaded in the online application

- The research project (max 2000 words, bibliography excluded) written in English by the candidate, choosing a title among those proposed by the PhD Programme
- Publications (max. 5)

### 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 online application)

Maximum score 40 points

### Publications

- 2 point for each publication (max. 5 already published JCR papers will be evaluated, only if relevant to the PhD programme)

maximum score 10 points

### Other qualifications:

Qualifications relevant to the research activities will be evaluated, including:

- Second/additional master degree
- Italian specialising master 1<sup>st</sup> and 2<sup>nd</sup> level degree, or equivalent title, if relevant to the PhD Programme

maximum score 5 points



<ul style="list-style-type: none"><li>- Non-academic Master</li><li>- Post-graduation research periods (supported by a declaration of the hosting laboratory)</li><li>- Any other pertinent specialising course</li><li>- Communications to congresses and non-JCR publications</li></ul> <p><i>Any strictly professional qualification or traineeship will not be evaluated</i></p>	
<b>Research project</b> (max. 2000 words, bibliography excluded) must be written by the candidate in English, choosing a title within those indicated by the PhD Programme	Maximum score 45 points
<b>Minimum threshold for admission</b>	<b>60 points</b>
<b>Further information on positions reserved to applicants with international qualifications:</b>  The <b>Research project</b> (max 2000 words, bibliography excluded) must be written by the candidate in English, choosing a title among those indicated by the PhD Programme. The candidate must develop the following points: a) state of the art of the chosen subject; b) targets of the project; c) research plan over the three years. The Examining Board will evaluate the scientific dimension of the project, its feasibility related to the length of the PhD, the targets identified, the scientific impact of outcomes.  The Examining Board, if necessary, may contact the candidate via Skype to discuss about the documentation provided. Therefore, candidates are required to specify the Skype account in the Application Form.	

## **Titoli dei progetti di ricerca**

### **Dottorato di Ricerca in Scienze Biologiche e Biotecnologie Applicate**

#### **Titles of research projects**

#### **PhD Programme in Biological Sciences and Applied Biotechnology**

1) Funghi associati alle microplastiche: isolamento, identificazione e caratterizzazione per la selezione di efficaci biocatalizzatori da utilizzare per applicazioni ambientali e industriali / Fungi associated to microplastics: isolation, identification and characterization for the selection of effective biocatalysts to be used at environmental and industrial applications / (Tutor : Giovanna Cristina Varese)

2) Utilizzo di screening genetico-funzionali e approcci omici per l'identificazione di fattori epigenetici chiave per la plasticità di cellule epiteliali / Employing functional genetic screening and omic approaches to identify key epigenetic factors of epithelial cell plasticity / (Tutor : Giacomo Donati)



## UNIVERSITÀ DEGLI STUDI DI TORINO

- 3) Un approccio omico per lo studio dell'interazione pianta-fungo nelle simbiosi micorriziche delle orchidee / Omics approaches to investigate plant-fungus interactions in orchid mycorrhizal symbioses /(Tutor: Silvia Perotto)
- 4) Interazioni tra biodiversità alpina, neve e cambiamento climatico: Come la copertura nevosa, lo scioglimento delle nevi e le valanghe modellano le comunità ornitiche di alta quota / Interactions between alpine biodiversity, snow and climate change: How snow cover, snow melt and avalanches shape high elevation bird communities /(Tutor : Dan Chamberlain)
- 5) Ruolo di apocarotenoidi nello sviluppo e nelle risposte a stress biotici e abiotici di piante di interesse agrario / Role of apocarotenoids in crop plant growth and in response to biotic and abiotic stresses /(Tutor : Valentina Fiorilli)
- 6) Ruolo dei piccoli RNA nella simbiosi micorrizica arbuscolare / Role of small RNA in the arbuscular mycorrhizal symbiosis/(Tutor : Luisa Lanfranco)
- 7) L'uso delle collezioni storiche naturali (gli erbari) per il monitoraggio dei cambiamenti attuali nella diversità microbica del suolo / The use of natural history collections (herbaria) to monitor current changes in soil microbial diversity/(Tutor : Mariangela Girlanda/Valeria Bianciotto)
- 8) Interazioni licheni-substrati lapidei negli ambienti naturali e sui beni culturali / Lichen-rock interactions in natural environments and on the stone cultural heritage /(Tutor : Sergio E. Favero Longo)
- 9) Monitoraggio del declino delle farfalle diurne per lo sviluppo di strategie di conservazione nelle aree aperte Europee / Monitoring butterfly decline to develop conservation strategies in European grasslands/ (Tutor : Simona Bonelli)
- 10) L'effetto della diversità funzionale degli scarabeidi coprofagi sul rapporto C:N, microbiota e crescita della vegetazione nei pascoli alpini / The effect of the functional diversity of dung beetles (Coleoptera Scarabaeoidea) on soil C:N ratio, microbiota and plant growth in alpine pastures/ (Tutor : Claudia Palestrini)