



“Annex 4” updated on 27th March 2019
(The updates are in red colour)

ANNEX 4

CALL FOR PHD POSITIONS – 35th 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 web site	http://dott-sbba.campusnet.unito.it/do/home.pl
Course start date	1 st November 2019
Departments involved in PhD programme	Department of Life Sciences and Systems Biology/Department of Agricultural, Forest and Food Sciences

Positions offered¹

n. 7 positions with scholarship, of which n. 2 reserved to candidates with international qualifications	of which: -n. 7 scholarships funded by the University
n. 2 positions without financial support	
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

The list of research projects is available at the end of this sheet. The 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 <http://en.unito.it/research/phd/phd-programmes> starting from **9th April 2019**.

Useful information for applicants

¹ 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> e <http://en.unito.it/research/phd/phd-programmes> until Call's deadline.



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Application fee: €50.00 for each application submitted. Candidates with international qualifications are exempted from paying the application fee.

Application fee deadline: 16th 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, research project and interview	
Qualifications to be uploaded in the on-line application	
<ul style="list-style-type: none"> • 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 1st cycle degree (Laurea Triennale) and 2nd cycle degree (Laurea Magistrale) with marks, weighted average and credits. For applicants applying under condition, please also check Art. 5 of the Call. • The research project (max 1000 words, bibliography excluded) written in English by the candidate, choosing a title among those proposed by the PhD Programme • 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: 110 - 110L __ 12 points 107 to 109 __ 10 points 104 to 106 __ 8 points 100 to 103 __ 6 points ≤ 99 _____ 4 points Weighted average of marks for examinations taken during the Laurea Magistrale/2nd cycle degree, for candidates applying under condition: ≥ 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 < 23/30 _____ 4 punti	maximum score 12 points
Thesis abstract of 2nd Cycle Degree	maximum score 3 points
Publications 1 point for each JCR publication (Only published papers or papers already accepted for publication will be evaluated). Publications will be evaluated only if relevant to the PhD programme	maximum score 3 points



<p>Other qualifications</p> <p>Qualifications relevant to the research activities will be evaluated, including:</p> <ul style="list-style-type: none"> - Second/additional master degree - Italian specialising master 1st and 2nd level degree, or equivalent title, if relevant to the PhD Programme - Non-academic Master - Post-graduation research periods (supported by a declaration of the hosting laboratory) - Any other pertinent specialising course - Communications to congresses and non-JCR publications <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><i>Minimum threshold for admission to the next examination</i></p>	<p><i>12 points</i></p>
<p>Research project</p>	<p>maximum score 20 points</p>
<p><i>Minimum threshold for admission to the interview</i></p>	<p><i>12 points</i></p>
<p>Interview</p>	<p>maximum score 60 points</p>
<p><i>Minimum threshold for passing the interview</i></p>	<p><i>36 points</i></p>
<p>Further information on examinations:</p> <p>Thesis abstract (max 400 words). The candidate must develop the following points:</p> <ol style="list-style-type: none"> a) purpose of the thesis; b) methods used; c) results achieved <p>Moreover, the name of the supervisor must be indicated.</p> <p>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:</p> <ol style="list-style-type: none"> a) state of the art of the chosen topic; b) targets of the project; c) research plan over the three years. <p>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.</p> <p>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:</p> <ul style="list-style-type: none"> - 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. <p>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.</p>	



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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 RESERVED TO APPLICANTS WITH INTERNATIONAL QUALIFICATIONS

Admission procedure for positions reserved to applicants with international qualifications

Assessment of qualifications and research project

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
- 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
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<i>Curriculum studiorum and vitae</i> (as by the information provided in the Application Form)	Maximum score 40 points
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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
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Other qualifications: Qualifications relevant to the research activities will be evaluated, including: - Second/additional master degree - Italian specialising master 1 st and 2 nd level degree, or equivalent title, if relevant to the PhD Programme - Non-academic Master - Post-graduation research periods (supported by a declaration of the hosting laboratory) - Any other pertinent specialising course - Communications to congresses and non-JCR publications <i>Any strictly professional qualification or traineeship will not be evaluated</i>	Maximum score 5 points
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Research project must be written by the candidate in English, choosing a title within those indicated by the PhD Programme	Maximum score 45 points
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<i>Minimum threshold for admission</i>	60 points
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Further information on positions reserved to applicants with international qualifications:

The **Research project** (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.

Teaching during the PhD will include courses and seminars both in Italian and English.

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) Mediazione acustica e visiva dei comportamenti collettivi / *Acoustic and visual mediation of collective behaviours (Tutor: Marco Gamba)*
- 2) Segnalazione pre-simbiotica e stimolazione della simbiosi micorrizica arbuscolare / *Pre-symbiotic signaling and symbiosis enhancement in arbuscular mycorrhiza (Tutor: Andrea Genre)*
- 3) Applicazioni biotecnologiche e molecolari all'epidemiologia di microrganismi fitopatogeni forestali e alla lotta integrata / *Biotechnological and molecular applications to the epidemiology and integrated management of forest pathogens (Tutor: Paolo Gonthier)*
- 4) Effetti dell'impatto antropico sugli ecosistemi delle grotte e sulla biodiversità sotterranea / *The Effects of Human Impacts on Cave Ecosystems and Subterranean Biodiversity (Tutor: Marco Isaia)*
- 5) Regolazione genica nell'interazione micorrizica delle orchidee / *Gene regulation in the orchid mycorrhizal symbiosis (Tutor: Silvia Perotto)*
- 6) Ecologia trofico-spaziale dell'avifauna alpina di alta quota / *Ranging and foraging ecology of high altitude alpine bird species (Tutor: Antonio Rolando)*
- 7) Caratterizzazione del microbiota dei frutti: un alleato nella difesa contro le malattie delle piante / *Characterization of fruit microbiota: an ally to fight against plant diseases (Tutor: Davide Spadaro)*
- 8) Funghi per la produzione di nuovi biomateriali da sottoprodotti agro-industriali / *Fungi for the production of new biomaterials from agro-industrial by-products (Tutor: Giovanna Cristina Varese)*
- 9) Cambiamenti nelle comunità di mammiferi nello spazio e/o nel tempo / *Changes in mammal communities over space and or time (Tutor: Sandro Bertolino)*
- 10) **Terapia fagica per il controllo di batteri fitopatogeni / *Phage therapy to control bacterial diseases of plants (Tutor: Massimo Turina - (Co-tutor)/Luisa Lanfranco)***