



"Annex 1" updated on 2 Settembre 2019

(The updates and the corrections are highlighted in red colour)

(ANNEX 1)

**CALL FOR PHD POSITIONS – 35 CYCLE
July's session**

PHD PROGRAMME IN PHARMACEUTICAL AND BIOMOLECULAR SCIENCES

PhD Programme Coordinator	Prof. Gianmario Martra
Department	Chemistry
PhD Programme Length	3 years
PhD web site	http://dott-sfb.campusnet.unito.it/do/home.pl
Course start date	November 1 st , 2019
Departments involved in PhD programme	Department of Chemistry, Department of Pharmaceutical Science and Technology, Department of Life Science and Systems Biology, Department of Public and Pediatric Health Sciences, Department of Molecular Biotechnology and Health Sciences

Positions offered by the PhD Programme ¹	
n. 4 positions with scholarship	of which: - n. 2 scholarships funded by LUIGI LAVAZZA S.p.A.; - n. 1 scholarships funded by RBM S.p.A. - n. 1 funded by the Department of Chemistry
n. 4 positions without scholarship	
n. 1 apprenticeship contract funded by CALEMA RICERCHE S.p.A.	
n. 2 apprenticeship contracts funded by HUVEPHARMA	

¹All additional scholarships and apprenticeship contracts (Art. 45 D.lgs 81/2015), 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>>.



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CALL FOR POSITIONS	
Admission procedure	
Assessment of qualifications, research project and interview	
Qualifications to be uploaded on the on-line application	
<ul style="list-style-type: none"> • Research project (max 400 words, references excluded) written in English by the candidate choosing a title within those offered by the PhD Programme (the title should be reported in the project); see the following the section "Further information on examination" • Abstract Thesis 2nd Cycle Degree • Publication 	
Assessment criteria	maximum score 100 points
Assessment of qualifications	maximum score 20 points
Final grade of second cycle degree <ul style="list-style-type: none"> • 110 e lode _____ 12 points • 110 _____ 11 points • 107-109 _____ 10 points • 104-106 _____ 9 points • 99-103 _____ 8 points • <98 _____ 7 points weighted average of list of examinations taken during the Laurea Magistrale/2nd cycle degree for candidates applying under condition: <ul style="list-style-type: none"> • Average from 29/30 to 30/30 _____ 12 points • Average of 28/30 _____ 11 points • Average from 26/30 to 27/30 _____ 10 points • Average of 25/30 _____ 9 points • Average of 24/30 _____ 8 points 7 points • Average < 24/30 _____ 7 points The average is rounded up if the decimal part is ≥ 5 , otherwise it is rounded down (<5).	maximum score 12 points
Thesis Abstract of 2 nd Cycle Degree	maximum score 3 points
Publications	maximum score 3 points



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<p>1 point for each publication (max 3 already published JCR papers will be evaluated, only if relevant to the PhD programme)</p>	
<p>Other qualifications:</p> <ul style="list-style-type: none"> - Honours for the dissertation ("menzione", "dignità di stampa", awards): 1 point - Second/additional master degree: 2 points - Italian specialising master 1st and 2nd level degree if relevant with PhD Programme: 1 point - Non-university Master : 0.3 point - Post-graduation research periods (supported by an official declaration of the hosting laboratory): 1.2 points per year (and in proportion for shorter periods) - Any other pertinent specialising course: 1 point - Communications to congresses: 0.1 points (max 5 communications) <p>For candidates applying under conditions: 1 point for at least 3 examination passed with laude</p> <p><i>(Titles relating to professional skills, not pertinent with 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>11 points</i></p>
<p>Research Project (see the section "Further information on examination")</p>	<p>maximum score 20 points</p>
<p><i>Minimum threshold for admission to the interview</i></p>	<p><i>11 points</i></p>
<p>Interview</p>	<p>Maximum score: 60 points</p>
<p><i>Minimum threshold for passing the interview</i></p>	<p><i>40 points</i></p>
<p>Further information on examinations:</p> <p>1) Knowledge of the English language for scientific purpose is compulsory.</p> <p>2) 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 	



Moreover, the name of the supervisor must be indicated

3) The Research project must be written in English, max 400 words, references excluded. The research project should be consistent with a title within those offered by the PhD Programme (the title chosen should be reported in the project) Candidates are required to choose a title from 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 3 years.

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

4) The interview will cover the qualifications and the publications submitted by the candidates, their studiorum 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 examination board will focus on:

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

The skill in the use of English will be assessed as well.

The interview, on request of the candidate and duly authorised by the examination board, may be taken via Skype (art. 8 of the Call).

Titoli progetti di ricerca

Dottorato di Ricerca in Scienze Farmaceutiche e Biomolecolari

Titles of research projects

PhD Programme in Pharmaceutical and Biomolecular Sciences

1. Sviluppo di nuovi metodi estrattivi, di purificazione ed analitici nella filiera della produzione del caffè. / Development of new extraction, purification and analytical methods in the coffee production chain. (*Tutor: Dott.ssa Arianna Binello*) (*titolo di progetto abbinato alla borsa di studio finanziata da / research project linked to the PhD Scholarship funded by Luigi Lavazza S.p.A.*)
2. "Studi chimici e sensoriali applicati alla valutazione temporale dei diversi aspetti della qualità del caffè/"Chemical and sensory studies applied to the evaluation over time of different aspects of coffee quality " (*Tutor: Dott.ssa Erica Liberto*) (*titolo di progetto abbinato alla borsa di*



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studio finanziata da / research project linked to the PhD Scholarship funded by Luigi Lavazza S.p.A.)

3. *Epidemiologia molecolare ed esposomica per la Sanità Pubblica: determinanti ambientali di salute e di malattia dal concepimento alla maggiore età. / Molecular epidemiology and exposomic for Public Health: environmental determinants of health and disease from conception to the age of majority. (Tutor: Prof. Roberto Bono) (titolo abbinato a posto senza borsa / research project linked to PhD position without scholarship)*

4. *Fotorilascio di ossido di azoto: nuove strategie per combattere tumori resistenti. / Photocontrolled release of nitric oxide: new strategies to overcome MDR tumours. (Tutor: Prof.ssa Loretta Lazzarato) (titolo abbinato a posto senza borsa / research project linked to PhD position without scholarship)*

5. *Nuove strategie e tecnologie per l'estrazione e la formulazione di nutraceutici e cosmeceutici. / New strategies and technologies for the extraction and formulation of nutraceuticals and cosmeceuticals. (Tutor: Prof. Giancarlo Cravotto) (titolo abbinato a posto senza borsa / research project linked to PhD position without scholarship)*

6. *Tecniche estrattive ed analitiche per la produzione di sostanze naturali bioattive. / Extraction and analytical techniques for the production of natural bioactive products. (Tutor: Prof. Massimo Maffei) (titolo di progetto abbinato a posto in apprendistato presso / research project linked to the apprenticeship contract at CALEMA RICERCHE S.p.A.)*

7. *Sviluppo e implementazione di soluzioni informatiche innovative, nel rispetto delle norme previste per la "data integrity", atte alla gestione di un centro ricerca industriale. / Development and implementation of innovative digital solutions, in compliance with data integrity policy, for the management of an integrated product research center. (Tutor: Prof. Franco Dosio) (titolo di progetto abbinato a borsa di dottorato finanziata da RBM S.p.A. / research project linked to PhD scholarship funded by RBM S.p.A.)*

8. *Dal batch al flusso continuo: ottimizzazione del processo produttivo / From batch to continuous flow: production process optimization (titolo di progetto abbinato a posto in apprendistato presso / research project linked to the apprenticeship contract at HUVEPHARMA Tutor: Prof. Giancarlo Cravotto)*

9. *Economia circolare della produzione industriale; gli scarti come risorsa / Circular economy in the industrial production; the waste as a resource (titolo di progetto abbinato a posto in apprendistato presso / research project linked to the apprenticeship contract at HUVEPHARMA Tutor: Prof. Giancarlo Cravotto)*

10. *Proprietà chimico-fisiche di micro- e nano-particelle di silice che mediano le risposte tossicologiche a livello molecolare / Key physico-chemical properties of silica and nanosilica particles mediating toxicological responses at the molecular level. (titolo abbinato a borsa finanziata dal Dipartimento di Chimica/ research project linked to PhD position funded by the Department of Chemistry; Tutor: Prof. Gianmario Martra)*



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11.Sviluppo preclinico di nuove molecole radiomarcate per la diagnosi e il trattamento di patologie tumorali mediante tecniche di medicina nucleare / Preclinical development of new radiolabeled molecules for the diagnosis and treatment of cancer using nuclear medicine techniques (*titolo abbinato a posto senza borsa/ research project linked to PhD position without scholarship. Tutor Prof. Enzo Terreno*)