



## Call for Doctoral positions in the International Doctoral School in Biomolecular Sciences - 27<sup>th</sup> Cycle

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### THE RECTOR

In accordance with Law no. 210 of 3<sup>rd</sup> of July 1998 and in particular, art. 4, which assigns the organization of doctoral schools to universities given the general criteria stipulated by ministerial regulations;  
In accordance with the Ministerial Decree no. 224 of 30<sup>th</sup> of April 1999, regarding the general criteria to be followed by individual universities in the organization of doctoral schools;  
In accordance with the Decree by the Prime Minister of 9<sup>th</sup> of April 2001, and subsequent amendments on the general criteria for uniform treatment regarding the right to higher education;  
In accordance with the Charter of the University of Trento and in particular art. 12, paragraph 9;  
In accordance with the University Regulations for Doctoral Schools, issued with the Rector's Decree no. 997 of 16<sup>th</sup> of December 2003; and subsequently modified with Rector's Decree no. 359 of 19<sup>th</sup> of April 2006;  
In accordance with the proposal of the Centre for Integrative Biology (CIBIO);  
Given the report of the internal Evaluation Committee of 29<sup>th</sup> of December 2009 on the requirements for the Doctoral Programmes proposed;  
Given the resolution made jointly by the Academic Senate and the Scientific Research Committee on the 3<sup>rd</sup> of February 2010;

### DECREES

#### Art. 1 – INSTITUTION

The University of Trento announces the 27<sup>th</sup> cycle of the PhD School in *Biomolecular Sciences*.

The selection for **12 doctoral positions** is announced. **9 positions** will be assigned scholarships.

The scholarships are funded as follows:

- n. 3 scholarships** funded by the University of Trento.  
The research activity will be carried out at the laboratories of CIBIO – Centre for Integrative Biology.  
To get more info about the labs please visit the webpage:  
<http://www.unitn.it/en/cibio/11875/laboratories>.
- n. 1 scholarship** funded by CIBIO – Centre for Integrative Biology (University of Trento) **directed to** the following research subject: *“p53-directed post-transcriptional translational control of gene expression: decoding the translome within the p53 response network.”*  
Principal Investigator: Prof. **Alberto Inga**.  
To get more info about the laboratory please visit the webpage:  
<http://www.unitn.it/en/cibio/11884/laboratory-transcriptional-networks>.
- n. 1 scholarship** funded by the Bruno Kessler Foundation (FBK), **directed to** the following research subject: *“Development of microdevices for 3D cell micro-culture and for purification and analysis of nucleic acids, i.e. materials and structures aimed at the isolation of miRNA, small RNA and mutated DNA from cell fluids deriving 3D cell cultures.”*  
The PhD will be carried out at the "Biofunctional Surfaces and Interfaces" unit of the Materials and Microsystems Center at FBK which mainly works on the functionalization of surfaces for bio-applications. The focus of the research will be the development of functional surfaces to be possibly included in micro-devices with the aim to isolate and specifically detect small RNAs, such as microRNAs. Through the collaboration with hospitals it will be possible to assess if microRNAs could be used as novel circulating biomarkers for cancer diagnostics.  
Principal Investigator: Dr. **Cecilia Pederzoli**.  
To get more info about the laboratory please visit the webpage: <http://mpba.fbk.eu>.



**Reserved Scholarships:** the assignment of these grants requires a **specific suitability** to be evaluated during the oral exam:

- n. 1 scholarship** funded by The Microsoft Research - University of Trento Centre for Computational and Systems Biology (COSBI), **reserved** for the research project: *“Mechanistic modeling of genetic and signaling networks connecting diet and diseases relying on mouse models of human disease.”*  
The candidate is expected to build an algorithmic model (see <http://www.cosbi.eu/index.php/research/alg-sys-bio>) of the folate cycle or other mechanisms that are related to obesity, relying on experimental data. The design and realization of the model will be done at COSBI within the molecular nutrition activities (see <http://www.cosbi.eu/index.php/research/molecular-nutrition>). The candidate is expected to perform his/her experimental work at ISB (Institute for Systems Biology) - Seattle in Nadeau's Lab (see [http://www.systemsbiology.org/scientists\\_and\\_research/faculty\\_groups/Nadeau\\_Group](http://www.systemsbiology.org/scientists_and_research/faculty_groups/Nadeau_Group)). A master in bioinformatics or bioengineering with knowledge of programming and data manipulation procedures is requested.  
Principal Investigator: Dr. **Attila Csikasz-Nagy**.  
To get more info about the laboratory please visit the webpage: <http://www.cosbi.eu/index.php/people/careers>.
- n. 1 scholarship** funded by The Microsoft Research - University of Trento Centre for Computational and Systems Biology (COSBI), **reserved** for the research project: *“Modeling of human disease from multi-source data for supporting P4 medicine”*.  
The candidate is expected to build an algorithmic model (see <http://www.cosbi.eu/index.php/research/alg-sys-bio>) of a human disease (it could be either heart disease or a neuro-degenerative disease), relying on experimental data. The design and realization of the model will be done at COSBI (see <http://www.cosbi.eu>). The candidate is expected to perform his/her experimental work at ISB (Institute for Systems Biology) - Seattle in Hood's Lab (see [http://www.systemsbiology.org/scientists\\_and\\_research/faculty\\_groups/Hood\\_Group/Profile](http://www.systemsbiology.org/scientists_and_research/faculty_groups/Hood_Group/Profile)). A master in bioinformatics or bioengineering with knowledge of programming and data manipulation procedures is requested.  
Principal Investigator: Dr. **Attila Csikasz-Nagy**.
- n. 1 scholarship** funded by The Microsoft Research - University of Trento Centre for Computational and Systems Biology (COSBI), **reserved** for the research project: *“Understanding the molecular details of microtubule dynamical instability by computational modeling”*. The candidate is expected to build an algorithmic model (see <http://www.cosbi.eu/index.php/research/alg-sys-bio>) of the molecular events that cause dynamical instability. Our software tool will be used to fit experimental data. A master's degree in bioinformatics, bioengineering or biophysics with basic knowledge of programming a mathematics is requested.  
Principal Investigator: Dr. **Attila Csikasz-Nagy**.
- n. 1 scholarship** funded by the Bruno Kessler Foundation (FBK), **reserved** for the research project *“Computational Functional Genomics”*.  
The ideal candidate will have a strong interest in developing an interdisciplinary expertise in computational methods for high-throughput functional genomics, with special attention to next generation sequencing. Some basic knowledge of the mechanisms of regulation at DNA, RNA (miRNA), and protein levels and of standard DNA/RNA sequencing concepts is required. Intermediate or higher IT skills are expected in algorithmics for bioinformatics, programming languages (Python and C as baseline), competence in the use of \*nix O.S., in interacting with databases, use of standard bioinformatics tools, knowledge of the R statistical and visualization environment. Basic mathematics competence should cover calculus linear algebra. Bases of statistical machine learning are also required. Preference will be given to a candidate with a Master degree (Laurea magistrale/specialistica or equivalent) in Mathematics, Biotechnology, Bioinformatics or Bioengineering.



Principal Investigator: Dr. **Cesare Furlanello**.

To get more info about the laboratory please visit the webpage: <http://mpba.fbk.eu> .

**Length:** three years.

**Official language:** English.

**Head of School:** Prof. Paolo Macchi - Tel. + 39 0461 283819-3095  
PhD Secretary Office phone: + 39 0461 285302  
email: [phd.bioscie@unitn.it](mailto:phd.bioscie@unitn.it)

**Scientific areas:** BIO/06 - Comparative Anatomy and Cytology  
BIO/10 - Biochemistry  
BIO/11 - Molecular Biology  
BIO/12 - Clinical Biochemistry and Clinical Molecular Biology  
BIO/13 - Applied Biology  
BIO/18 - Genetics  
BIO/19 - Microbiology  
CHIM/06 - Organic Chemistry  
INF/01 - Informatics

**Research areas:**

1. Biochemistry
2. Bioinformatics
3. Computational Biology
4. Developmental Biology
5. Genetics
6. Lipidomics and Biomembranes
7. Metabolomics and Metabolic Imaging
8. Microbial Genomics
9. Molecular and Cellular Biology
10. Molecular Vaccinology
11. Molecular Virology
12. Nanobiotechnology
13. Neurobiology
14. Organic Chemistry
15. Structural Biology
16. Systems Biology
17. Synthetic Biology

**The number of grant-assisted positions may be increased** by additional funds from universities, public research institutions or qualified private organizations that might become available after the publication of this announcement and before the titles' evaluation. For this reason, the increase of the grants could change in parallel the total number of the available positions.

Applicants who want to apply for any extra grant-assisted positions concerning a specific research subject (**reserved scholarship**) are required to ask the Admission Committee for it during the candidate's identification, that will take place before the oral examination. In such case the candidate's competence in the specific subject described in the grant is evaluated during the oral examination.

Any increase in the number of available positions will be posted only on the website: <http://www.unitn.it/en/ateneo/3068/announcement-selection>.

#### Art. 2 – ADMISSION REQUIREMENTS

Applications for the doctoral positions are accepted from candidates, regardless of gender, age and nationality, who have an Italian "laurea specialistica" or "laurea magistrale" in compliance with Ministerial Decree no. 509 of 3.11.1999 as amended, an university degree of the previously enforced Italian regulations, or an equivalent academic degree obtained abroad.

Any degree in scientific areas will be a preferential title.



**Applicants holding an Italian degree** must submit the degree certificate together with the list of exams and grades obtained.

**Applicants holding a foreign degree** not officially recognized as equivalent to the Italian "laurea specialistica", must explicitly request recognition of equivalence in their application by including:

- degree certificate (EU citizens may present a self-declaration of the possession of a degree, according to Presidential Decree no. 445 of 28.12.2000).
- the English translation of the degree certificate (if in a different language) with passed exams, grades obtained and short description of a given academic qualification awarded by an institution located in a foreign country and belonging to an educational system different from the Italian one (i.e. Diploma Supplement, if available), signed under their own responsibility, to enable the PhD School Committee to declare its equivalence, valid solely for the purpose of admission to the selection process.

Applications are also accepted from students who expect to complete their degree **by the 18<sup>th</sup> of October 2011**. In this case, the candidates need to present, together with their application, an enrolment certificate with passed exams and grade obtained together with a statement from the University Registrar's Office declaring that the student is expected to obtain the degree **by deadline stated above**. In such cases admission is "conditional" and applicants must present the degree certificate, or a declaration that the degree has been conferred (according to Presidential Decree no. 445 of 28.12.2000 applicable only to EU citizens) to the: Secretary of the Doctoral School in Biomolecular Sciences (Address: Via Sommarive, 14 – 38123 POVO -Trento, Italy; Fax: +39 0461 283937) **within the 21<sup>st</sup> of October 2011** or they will be excluded.

### Art. 3 – THE DOCTORATE PROGRAMME

The Doctorate School in Biomolecular Sciences is characterized by a program that enables students to acquire high-level skills in different research areas, encouraging the development of scientific and technological progress in innovative areas that require interdisciplinary approaches.

The teaching and research programs of the Doctoral School aim to promote cooperation with other Italian and foreign universities. For this reason, at least 3-months study periods abroad, not exceeding one year, are mandatory.

The training is characterized by an appropriate balance between:

- 1) courses, mostly concentrated in the first and second year and
- 2) research activity in the laboratory.

Each doctorate student attends a timely training course that includes, besides the research performed under the supervision of the tutor and advisor in accordance with the respective competences, base and advanced courses as well as specialization courses at the University of Trento.

The students enrolled at the International Doctoral School in Biomolecular Sciences are obliged to attend courses, seminars, symposia and practical courses organized by the Doctorate School.

Base and advanced courses. The teaching staff of the University of Trento, assisted also by visiting professors, provides enhancement courses regarding specific topics of biological and biotechnological relevance. Furthermore during the first year, practical laboratory activities are planned, in order to offer to the new students the opportunity to know directly the scientific topics carried out by different research groups. Internationally renowned teachers are invited to hold specific courses of particular scientific relevance.

Seminars. National and international researches are invited to present their research within the seminar cycle. Internal seminars (journal clubs and progress reports) are regularly organized in order to present and discuss new published results or to show data of ongoing research activities.

Symposia. A symposium (named *work in progress*) which all the doctorate students have to attend is organized once a year. The students present posters regarding their project and give a presentation of their results. For the doctorate student, this meeting is the occasion to socialize and to know the projects and the results of other colleagues. Moreover, the students have the opportunity to gain experience in communication and presentation of scientific results.

The 3-years Doctoral School is organized in the following way:

#### First year

The doctoral students must attend:



- Courses for a total of 60 hours.
- Initiatives described above.

The teaching program offered each year by the Doctoral School is presented at the start of the academic year in the School's Manifesto of Studies which will be published on the internet at <http://www.unitn.it/en/drbs>.

At the end of the first year, students must submit a plan of study indicating the courses that intend to attend during the second year among those proposed in the manifesto of the studies.

### **Second year**

The doctoral students must attend:

- Courses for a total of 60 hours, chosen from the courses offered by the Doctoral School and, upon consensus of the PhD Committee, by other Doctoral Schools and by the faculty of Sciences;
- Initiatives described above.

At the end of the second year, the student presents the proposal for the PhD thesis.

During the second year, upon request, the doctoral students in Biomolecular Sciences can be authorized to carry out paid auxiliary and integrative teaching activities for a total of not more than 60 hours as long as this does not affect attendance at the doctoral courses and the student's educational activities.

### **Third year**

The doctoral students focus predominantly on their research. In any case, students must attend the initiatives previously described.

Conditions for the admission to the following year:

For the admission to the second year, the following requisites are essential:

- constant participation to the educational activities proposed by the Doctoral School: mandatory attendance of at least 80% for each course and 15 seminars per year. In case the candidate does not reach the required attendance hours, the PhD Committee could decide to approve the admission to the following year under condition and to require the doctoral student to attend courses again if necessary.
- to obtain a fulfilling evaluation by the teachers and by the tutor and the advisor (if any). The tutor and advisor should provide the PhD Committee with a letter of evaluation before the end of the year. The evaluation letter must be concise, clear and precise.

Based on the above information, the PhD Committee suggests one of the following scores:

- APPROVED. The student can access to the second year.
- APPROVED WITH WARNING, the student may continue but shortcomings have been highlighted in the preparation or research project.
- NOT APPROVED.

The student who needs a serious revision of the research project based of comments received from both the tutor and advisor or from the PhD Committee, is invited to a subsequent discussion in front of PhD Committee and in the presence of the tutor and advisor.

At the end of this stage of evaluation, the PhD Committee will inform the student of its decision.

For the admission to the third year, the following requisites are essential:

- constant participation to the educational activities proposed by the Doctoral School: mandatory attendance of at least 80% for each course and 15 seminars per year. In case the candidate does not reach the required attendance hours, the PhD Committee could decide to approve the admission to the following year under condition and to require the doctoral student to attend courses again if necessary.
- to obtain a fulfilling evaluation by the teachers and by the tutor and the advisor (if any).

For admission to the final exam, the tutor submits to the PhD Committee a letter of presentation that assesses the activities carried out by the PhD candidate along with a list of publications that the candidate has submitted or published during the PhD period.

Based on this letter, the PhD Committee will express the opinion of assessment.

Only upon a positive evaluation by the PhD Committee, the student is admitted to the final exam.

More details are explained in the Executive Regulations of the School.



#### Art. 4 – APPLICATION

The application, together with all the attachments required, must arrive at the University of Trento **by the 4<sup>th</sup> of October 2011** in one of the following ways:

- on-line application at the following website: <http://www4.unitn.it/Apply/en/Home/Index> **by the 4<sup>th</sup> of October 2011, at 4:00 p.m. Italian time;**
- hand-delivered to the University of Trento - Ufficio Protocollo Centrale, Via Belenzani 12 – 38122 Trento (ITALY) (please write “Selection for Doctoral School in Biomolecular Sciences- 27th cycle” on the envelope) from 10:00 am to 12:00 a.m., Monday to Friday;
- by mail to the following address: Al Magnifico Rettore dell'Università degli Studi di Trento, Via Belenzani 12 – 38122 Trento (ITALY) (please write “Selection for Doctoral School in Biomolecular Sciences”-27th cycle” on the envelope);

The University of Trento does not accept responsibility for mishandling of applications by mail or courier services, or for applications sent to an incorrect address.

In accordance with Art. 71 and amendments of D.P.R. no. 445 of 28 December 2000, the University of Trento may seek to verify the documents sent at any time. Candidates whose applications do not conform to the admission requirements set out in the present call, may be excluded from the selection process by written notice at any time.

**Applications arriving after the 4<sup>th</sup> of October 2011 will be disregarded, even if sent before the deadline.**

#### Application must include:

**Attachment 1:** Photocopy of the applicant's ID (for EU citizens) or passport, specifically the pages showing the photo, personal data, the ID number, place and date the document was released. No other form of identification will be accepted.

**Attachment 2:** Degree certificate or equivalent certification, as stated in Art. 2 of this announcement.

**Attachment 3:** *Curriculum vitae et studiorum* in English.

**Attachment 4:** Summary of the degree thesis written in English explaining the reasons for the choice of the subject, the research methodology and the results obtained (max 3000 characters including spaces, 12 font, single space).

**Attachment 5:** English language certification ascertaining a minimum level of B1<sup>1</sup>, if the candidate is not English mother tongue or if the candidate did not attend a Bachelor's or Master's level course entirely in English.

In the application the candidate **must indicate** two choices among the 17 research areas and specify the order of preference as well.

The candidate interested in obtaining also the suitability for one or more **reserved scholarships** must indicate the interest. The suitability of the candidate for these fellowships will be evaluated during the oral exam.

#### Application may include:

- List of publications;
- any additional qualifications such as international examinations (GRE or equivalent);
- any additional qualifications useful for assessing the applicant's skills (e.g. prizes, study and post-graduate activities of research, etc.);
- a brief document describing the applicant's motivations for pursuing this particular doctorate programme (*Motivation Letter*);
- a brief research project (1000 characters maximum, including spaces) describing the applicant's research interests (*Statement of Research Interest*).
- Two reference letters<sup>2</sup> in English by experts of Universities, National or International Research Institutes in the doctoral research areas. The letters must be addressed to: prof. Paolo Macchi, Coordinator of

<sup>1</sup>Based on CEFR (Common European Framework of Reference for Languages. Info at: [http://en.wikipedia.org/wiki/Common\\_European\\_Framework\\_of\\_Reference\\_for\\_Languages#Selfevaluated\\_equivalences\\_to\\_CEFR\\_levels](http://en.wikipedia.org/wiki/Common_European_Framework_of_Reference_for_Languages#Selfevaluated_equivalences_to_CEFR_levels).

<sup>2</sup> The letters of reference are strongly recommended. However, the omission of these letters will not exclude the candidate from the selection procedure.



the PhD Program in Biomolecular Sciences, University of Trento and should preferably contain the following information:

1. When and in which occasion the referee knows the candidate.
2. Strengths and weaknesses of the candidate.
3. Brief description of the candidate's contribution on research performed in the laboratory.
4. If the applicant's native language is not English, the referee should report on his/her abilities in English.

The letters must be sent by the referees by choosing one of the following ways:

- By email to: [ateneo@unitn.it](mailto:ateneo@unitn.it) (Please indicate the subject: "Letter of presentation of the candidate's full name / PhD in Biomolecular Sciences")<sup>3</sup>.
- By fax to the number: +39 0461 283937;
- By mail to the following address:  
prof. Paolo Macchi  
Coordinator of the PhD School in Biomolecular Sciences,  
Ufficio Protocollo, via Belenzani 12, 38122 - Trento, Italy.

The candidates should check with their referees that the letters are sent by the date of the titles evaluation.

**All the requested documentation must be either in Italian or in English.**

If, subsequently to the submission of the application, the applicant needs to add further information, the documents must reach the University's offices **within the 4<sup>th</sup> of October 2011, by using the attached form B** through one of the ways listed in the letter **b)** or **c)** of this article. The applicant must specify on the envelop: name, Doctoral School in Biomolecular Sciences and "Integrazione domanda". Please notice that it is NOT possible to add further information using the application online once it has been definitely closed.

The University of Trento has the right to check, even to spot check, declarations and documents provided by the candidates, according of art. 71 and following articles of the Presidential Decree no. 445 of 28<sup>th</sup> of December 2000. Candidates whose applications do not conform to the admission requirements set out in the present call may be excluded from the selection process by written notice at any time.

#### Art. 5 – SELECTION

The selection process for the admission to the PhD School in Biomolecular Sciences consists of:

- a title evaluation assessing the qualifications of the candidate according to Art. 4;
- an oral examination in English language.

During the oral exam the Admission Committee assesses the suitability of the candidates requiring to be evaluated for one or more **reserved scholarships**.

The Committee may use of an overall score of 100 points, divided in the following way:

- from 0 to 60 points for the qualifications assessment;
- from 0 to 40 points for the oral examination.

In order to be admitted to the oral examination candidates must reach a minimum score of 40/60 after the qualifications assessment.

The list of those candidates admitted to the oral examination will be published, after the qualifications assessment, on the web page: <http://www.unitn.it/en/ateneo/3068/announcement-selection> .

In order to take the oral examination the candidates must present a valid photo ID.

The oral examination is considered passed with a score even or equal to 25/40.

The selection is considered passed with a **total score** even or equal to **65/100**.

Candidates who live abroad may take the oral exam by phone or videoconference. Following the date in which the results from the qualifications assessment are published online, the candidates who intend to take the oral examination abroad must submit **Form A** not later than 5 working days, by emailing [phd.bioscie@unitn.it](mailto:phd.bioscie@unitn.it) . By filling out this form the candidate must provide exact contact details of an official who will be able to identify him/her just before the oral examination. Once this form is duly filled out and sent to the email address above, the Committee will take into consideration the information provided and then give the candidate appropriate notice of the time of the oral examination.

<sup>3</sup> When using the application online, once the referee section has been completed and saved, a notification email will be sent to the referees by the system within 24 hours.



Short-listed applicants will be admitted to the Doctoral School according to their placement in the ranking list prepared by the Selection Committee until all available places have been filled.

At least 20 days before the oral examination, the date, the time and the location of the oral examination will be published on the following webpage: <http://www.unitn.it/en/ateneo/3068/announcement-selection> as laid out in Art. 20 of the University Regulations of Doctoral Schools.

#### Art. 6 - PROGRAMME OF THE ORAL EXAMINATION

The interview aims to evaluate the preparation of the candidate and his/her research aptitude and it will be held in English. The interview focuses on questions relating to the research carried out by the candidate, the contribution to any scientific publications along with general questions aimed to determine the background of the candidate.

As concerns candidates having required to be evaluated for one or more **reserved scholarships** the Commission will evaluate their specific suitability during the oral exam.

#### Art. 7 – SELECTION COMMITTEE

Upon hearing the PhD Committee the Rector appoints the Selection Committee .

It consists of three members chosen among Italian and foreign tenured professors and researchers, who are experts in the scientific areas of the Doctoral School. The Committee may also include two experts, who may be foreign, from public and private national and international research centres.

Having held the qualifications evaluation and the oral examination, the Selection Committee will draw up a merit-based ranking according to the scores obtained by the applicants.

The final ranking of the candidates will be posted only on the website: <http://www.unitn.it/en/ateneo/3068/announcement-selection>. Through publication of such list, notification concerning the proceedings is considered to be fulfilled.

**Applicants admitted to the School will not receive personal communication of their results.**

#### Art. 8 – ADMISSION TO THE DOCTORAL SCHOOL

Applicants will be admitted to the Doctoral School according to their place on the final ranking until all available places have been filled.

In case of equally ranked candidates, the student's economic situation will be evaluated for the purpose of assigning a scholarship, in accordance with the Decree of the President of the Council of Ministers (D.P.C.M.) of April 9, 2001 as amended. For places without a scholarship, the younger candidate shall be given priority.

If a successful applicant withdraws before the beginning of the course, (1<sup>st</sup> of January 2012) the next applicant on the ranking will be offered the place.

If a successful applicant withdraws or is excluded during the first three months of the first year of the course, the Doctoral School Committee may decide to fill the vacant place with the next available candidate on the ranking.

According to art.19, paragraph 3 of the University Rules for Doctoral Schools and according to previous Doctoral School Committee resolutions, the Selection Committee may admit to the School up to 20% of the total assigned places, candidates who are eligible in the general ranking, if they belong to the following categories:

- applicants from non-E.U. countries who have been awarded any kind of grant<sup>4</sup> at the moment of the application for the admission to the Doctoral School (e.g. assigned by Ministry of Foreign Affairs, or by Government of home country or by International Organizations);
- applicants from a country with a specific intergovernmental agreement with Italy, on the basis of a bilateral agreement between the University of Trento and the foreign university (with no obligatory financial burden for the University of Trento);

#### Art. 9 – HOW TO ENROL

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<sup>4</sup> The duration of the grant should cover at least a part of the three-year period of the Doctoral Programme.



Eligible applicants who are admitted to the School should forward their enrolment application on paper with attached stamp duty to:

University of Trento  
Direzione Didattica e Servizi agli Studenti  
Ufficio Dottorati ed Esami di Stato  
Via Inama 5  
38122 Trento (ITALY)

**within 15 days** after the date of the publication of the final ranking at the page <http://www.unitn.it/en/ateneo/3068/announcement-selection>

If applicable, the payment receipt of the provincial tax for the right to university study (TDS) must be attached to the application.

In the application (forms are available at the Ufficio Dottorati ed Esami di Stato and on the website:

<http://www.unitn.it/en/ateneo/2696/enrolment-and-extension> ) candidates should:

- indicate whether they ask to be awarded a scholarship (successful applicants, who have not been awarded a scholarship should also fill out this section, in case an applicant with scholarship should withdraw);
- state whether they receive another grant, different from the one awarded by the University of Trento, from the Italian Ministry of Foreign Affairs;
- state whether they have already been awarded an Italian scholarship for a doctoral programme;
- declare that they are not already enrolled and undertake not to enrol on any other programme for a degree, an Italian "Scuola di Specializzazione", a Ph.D., or Master degree of the I or the II level, for the duration of this Doctoral Program. Or alternatively, commit to stop attending such a school before the start of the Doctoral Program;
- state whether they are an Italian public sector employee;
- commit to obtain authorization from the PhD Committee before taking up any form of employment;
- commit to promptly inform the University of any changes of their residence or address.

Admitted non-E.U. applicants holding a non-Italian qualification and admitted E.U. applicants holding a non-E.U. qualification **must** also present their degree certificate along with exams taken and grades obtained, translated and authenticated by an Italian consulate, embassy or diplomatic representative in the country where the degree was issued, and the respective declaration of validity ("**Dichiarazione di Valore**") **within the enrolment deadline. Declaration of Value must state that the university degree is valid and enables candidates to enrol in a PhD course in the country where it was obtained.**

Eligible applicants admitted to the School who do not send their application **within 15 days following the publication date of the ranking** on the web page: <http://www.unitn.it/en/ateneo/3068/announcement-selection>, lose the right to enrol and their corresponding position will be offered to the next candidate on the list.

#### Art. 10 – GRANTS

Grants are assigned based on the ranking of applicants drawn up by the Selection Committee, on request of the applicant.

In the case of one or more externally funded scholarships, the candidates may choose what scholarship to accept according to their position on the final ranking.

The candidate who has been awarded a **reserved scholarship** for a specific research project cannot decline the offer. Should the candidate decline the enrolment, it will be offered to the next candidate on the ranking suitable for it. The reserved grants will not be assigned in case no one of the candidates should be suitable for them.

The gross amount of the scholarship is Euro 13,638.47 per year<sup>5</sup>. Grants are normally paid bi-monthly and in advance, with the exception of undue payments in case the student is expelled or suspended.

Grants cannot be combined with other scholarships, except those awarded by national or foreign scientific institutes deemed appropriate for the research activities carried out by the doctoral student.

The scholarship will be increased by 50% for research periods spent abroad that are authorized by the Head of the School or by the PhD Committee.

<sup>5</sup> At the date of publication of the present call, Italian law (art. 2, §26 of Law 335/95 and subsequent modifications) states that scholarships are subject to pension fund contributions (INPS) starting from 1/01/2009, of 17% or 26,72%, of which 1/3 will be charged to the candidate.



Grants are awarded for the entire duration of the program following confirmation by the PhD Committee of the results achieved every year by the doctoral students.

A doctoral student's failure to attend the program for over thirty days will lead to grant suspension.

Should the candidate leave the doctoral School, he/she loses the right to get the unpaid part of the scholarship.

#### Art. 11 – DOCTORAL STUDENTS RIGHTS AND DUTIES

Doctoral students must attend the doctorate programme and carry out research and studies on a full-time basis according to the schedules and the regulations laid out by the Doctoral School Committee, as specified in art. 3 of the present announcement.

Doctoral students involved in a co-tutelle project also have the obligation of following the study and research plan as indicated in the agreement with the foreign university.<sup>6</sup>

Grants financed by external bodies where specific research is to be carried out, limit the grant holders to carry out that specific work for the entire duration of the PhD Program.

In case of a negative evaluation by the PhD Committee regarding a student's participation in School activities and studies, the Rector can exclude him/her from the PhD Program.

The PhD Committee might decide, with an explicit justification, to exclude a student from the School and the consequent forfeit of the study grant in the case of:

- a) negative assessment by the PhD Committee concerning admission to the next year of the Program;
- b) full time contracts as well as subordinate work and any occupation done without authorization from the PhD Committee;
- c) unjustified and prolonged absences;
- d) fraudulent manipulation of research data and documents.

For the length of the doctorate programme, students are insured by the University against accidents and damage to third parties that occur solely in circumstances pertaining to the PhD program.

According to art.2 first paragraph of Law no. 476 13 August 1984 and further modifications, Italian public sector employees admitted to the Doctoral School may request for the duration of the programme a leave of absence to study without salary and may apply for a study grant. In the case that the employee is admitted to the Doctoral course and declines the grant or is not awarded any grant, he/she may continue to receive salary, social security and pension from the public administration. Should the employee choose to end the work relationship during the two years following conferral of the Doctoral title, he/she is obliged to return all payments received for the duration of the Doctoral course.

#### Art. 12 – DOCTORAL TITLE CONFERRAL

The doctoral title, conferred by the Rector, is granted when students pass the final examination which takes place at the end of the doctorate programme.

Upon advice given by the PhD Committee, the Examination Committee is nominated by the Rector, in accordance with the University Rules for Doctoral Schools and it is made up as follows.

The issuing of the degree certificate is conditional upon the candidate providing the University archive with copies of the final dissertation. The University archives will ensure public accessibility and the proper conservation of the printed thesis. The University will see to it that the National Libraries in Rome and Florence will be provided with a copy of the dissertation, as required by Italian law.

#### Art. 13 – PERSONAL DATA

The University of Trento, in accordance with Legislative Decree 196/03 "Italian Personal Data Protection Code", may use applicants' personal data only for the purpose of selection procedures and for institutional reasons.

In observance of the above-mentioned legislative decree, participation in the selection requires the applicant to give the University of Trento permission to publish his/her personal data concerning the results of the selection procedure on the University website.

Data are treated by the University of Trento, with offices in via Belenzani, 12 – 38122 Trento.

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<sup>6</sup> For more information about co-tutelle thesis and about current agreements with foreign universities visit <http://www.unitn.it/en/ateneo/3025/doctoral-thesis-co-tutelle>.



Art. 14 – REFERRAL RULE

For matters not explicitly mentioned in the present announcement, please refer to art. 4 of Law no. 210 of 3<sup>rd</sup> of July 1998, to Ministerial Decree no. 224 of 30<sup>th</sup> of April 1999 and to the University Regulations for Doctoral Schools issued with the Rector's Decree no. 937 of 16<sup>th</sup> of December 2003 and amended with the Rector's Decree no. 359 of 19<sup>th</sup> of April 2006.

The Rector  
prof. Davide Bassi

I, the undersigned, am applying to be included in the selection for the Doctorate Programme in

**Biomolecular Sciences – 27<sup>th</sup> cycle**

1) The candidate is required to indicate two choices among the 17 research areas (number 1 = favourite research area; number 2 =second option).

- Biochemistry
- Bioinformatics
- Computational Biology
- Developmental Biology
- Genetics
- Lipidomics and Biomembranes
- Metabolomics and metabolic imaging
- Molecular and Cellular Biology
- Microbial Genomics
- Molecular Vaccinology
- Molecular Virology
- Nanobiotechnology
- Neurobiology
- Organic Chemistry
- Structural Biology
- Synthetic Biology
- Systems and Computational Biology

2) Indicate, if any, your preference (not binding) towards scholarships concerning the advisable following research topics (number 1 = first choice; number 2 =second option)

- “p53-directed post-transcriptional translational control of gene expression: decoding the translome within the p53 response network.”*
- “Development of microdevices for 3D cell micro-culture and for purification and analysis of nucleic acids, i.e. materials and structures aimed at the isolation of miRNA, small RNA and mutated DNA from cell fluids deriving 3D cell cultures.”*

3) indicate the preference if interested in obtaining the suitability for one or more reserved scholarship . Note: The candidates awarding a reserved grant must accept it.

- "Mechanistic modeling of genetic and signaling networks connecting diet and diseases relying on mouse models of human disease."
- "Understanding the molecular details of microtubule dynamical instability by computational modeling"
- "Modeling of human disease from multi-source data for supporting P4 medicine"
- "Computational Functional Genomics",

**For this purpose I, the undersigned, declare my**

<b>SURNAME</b>		
<b>NAME</b>		
<b>SEX</b>	<b>M</b>	<b>F</b>
<b>CODICE FISCALE<sup>7</sup></b>		
<b>DATE OF BIRTH</b>		
<b>BIRTHPLACE</b>	<b>Town/City</b>	
	<b>Country</b>	

**PERMANENT RESIDENCE**

<b>Address</b>		
<b>Zip Code</b>		<b>Country</b>
<b>Tel.</b>		<b>Mobile</b>
<b>Email</b>		

**ADDRESS FOR CORRESPONDENCE DURING CALL SELECTION PROCESS, IF DIFFERENT FROM ABOVE**

<b>Address</b>		
<b>Zip Code</b>		<b>Country</b>
<b>Tel.</b>		<b>Mobile</b>

• **THAT I HAVE** \_\_\_\_\_ **CITIZENSHIP**

**Most recent academic title obtained (Italian):**

DEGREE IN: \_\_\_\_\_

GRADUATION DATE: \_\_\_\_\_ FINAL GRADE: \_\_\_\_\_

- TYPE OF DEGREE:  VECCHIO ORDINAMENTO  
 SPECIALISTICA  
 MAGISTRALE

UNIVERSITY OF: \_\_\_\_\_

<sup>7</sup> Italian tax code, only to be filled out if applicant already has one.

**Most recent academic title obtained (Foreign):**

DEGREE IN: \_\_\_\_\_

GRADUATION DATE: \_\_\_\_\_ FINAL GRADE: \_\_\_\_\_

TYPE OF DEGREE:  MA / MSc  
 BA (4 YEARS)  
 BSc (4 YEARS)

UNIVERSITY OF: \_\_\_\_\_

COUNTRY: \_\_\_\_\_

- **or THAT I HAVE NOT YET GRADUATED and that I am aware that admission to the School depends on earning my degree certificate by October 18, 2011.**

GRADUATING IN: \_\_\_\_\_

UNIVERSITY OF: \_\_\_\_\_

COUNTRY: \_\_\_\_\_

- **or THAT I HAVE A FOREIGN DEGREE which is already recognized as equivalent<sup>8</sup> to the Italian degree**

Rector's Decree number: \_\_\_\_\_ date \_\_\_\_\_

University of: \_\_\_\_\_

**IF NOT**

- **TO ASK the Doctoral School Committee TO RECOGNISE its equivalence to the Italian degree attaching the required documents** (Candidates who have a foreign degree that has not YET been officially recognized as equivalent to the Italian degree have to attach a translation into English of the degree certificate with exams and results obtained signed by the applicant, in order to enable the Doctoral School Committee to state its equivalence. Admitted non-E.U. applicants holding a non-Italian qualification and admitted E.U. applicants holding a non-E.U. qualification must also present their degree certificate along with exams taken and grades obtained, translated and authenticated by an Italian consulate, embassy or diplomatic representative in the country where the degree was issued, and the respective declaration of validity ("Dichiarazione di Valore") within enrolment deadline.

**WARNING:** Declaration of Value must state that the university degree is valid and enables candidates to enrol in a PhD course in the country where it was obtained.

- **TO HAVE BEEN AWARDED THE FOLLOWING ADDITIONAL DEGREES/TITLES :**

	Bachelor's Degree	PhD	1 <sup>st</sup> Level Master	2 <sup>nd</sup> Level Master	Specialization Course	Other
Degree/ Title						
Institution/ University						
Date of issue						

<sup>8</sup> Getting a foreign title recognized involves a process that must be carried out directly by the person. This process may not be done by the University of Trento. In case the degree has already been recognized as equivalent to an Italian one, the candidate must provide identification parameters of the document in which equivalence is declared.

• **TO SPEAK ENGLISH**

(on the criteria provided by the CEFR "Common European Framework of Reference" for Languages):

<input type="checkbox"/> <b>A1, A2</b> Elementary	<input type="checkbox"/> <b>B1</b> Intermediate	<input type="checkbox"/> <b>B2</b> Upper Intermed.	<input type="checkbox"/> <b>C1</b> Advanced	<input type="checkbox"/> <b>C2</b> Proficient	<input type="checkbox"/> <b>Mother Tongue</b>
--	--	---	--	--	--

• **TO KNOW THE OTHER FOLLOWING LANGUAGES :**

<input type="checkbox"/> Italian	<input type="checkbox"/> French	<input type="checkbox"/> Spanish	<input type="checkbox"/> German	<input type="checkbox"/> _____	<input type="checkbox"/> _____
----------------------------------	---------------------------------	----------------------------------	---------------------------------	--------------------------------	--------------------------------

**REFEREES WHO WILL BE ASKED TO SEND A REFERENCE LETTER:**

**NAME AND SURNAME** \_\_\_\_\_

**AFFILIATION** \_\_\_\_\_

**ADDRESS** \_\_\_\_\_

**EMAIL** \_\_\_\_\_

**NAME AND SURNAME** \_\_\_\_\_

**AFFILIATION** \_\_\_\_\_

**ADDRESS** \_\_\_\_\_

**EMAIL** \_\_\_\_\_

• **NUMBER OF PUBLICATIONS (Peer reviewed international journals)** \_\_\_\_\_

• **THAT I TAKE UNDER MY RESPONSIBILITY to immediately inform the University of any changes of my residence address, living and correspondence address.**

• **THAT I HAVE/DO NOT HAVE<sup>9</sup> any disabilities (art. 4 Law 104/92) and need**

- **The following assistance:** \_\_\_\_\_

- **and/or extra time:**                      **YES**                      **NO**

• **THAT I AM AWARE AND I ACCEPT THE REGULATIONS REGARDING**

1. **this call**

2. **the University Regulations for Doctoral Schools and Regulations of the Doctoral School in Biomolecular Sciences at webpage <http://www.unitn.it/en/reg-dottorati>**

Date \_\_\_\_\_

Signature \_\_\_\_\_

<sup>9</sup> Cross out the item that does not correspond to you.

<b>ANNEX A</b>	Prof. Paolo Macchi, Head of the Doctoral School in Biomolecular Sciences, University of Trento
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I, (SURNAME) \_\_\_\_\_ (NAME) \_\_\_\_\_

**ask to conduct the interview by tele/videoconference at only one of the following places:**

- the University of \_\_\_\_\_
- the Institute of \_\_\_\_\_
- the Italian Embassy in \_\_\_\_\_

**LOCATED IN**

Address		No.	Zip Code
Town / City	Country		
<b>Telephone</b>			
<b>Skype ID</b>			

- I declare under my own responsibility that I will be identified by the following person:

**SURNAME** \_\_\_\_\_

**FIRST NAME** \_\_\_\_\_

**QUALIFICATION /POSITION** \_\_\_\_\_

**DATE OF BIRTH** \_\_\_\_\_

**PLACE OF BIRTH** \_\_\_\_\_

**TELEPHONE** \_\_\_\_\_

**E-MAIL** \_\_\_\_\_

**PLEASE NOTE! the person who will identify the candidate cannot be the candidate him/herself**

Date \_\_\_\_\_

signature \_\_\_\_\_

**Annex B** (Additional information request)

Alla c.a.  
Ufficio Protocollo Centrale  
Direzione Generale  
Università degli Studi di Trento  
Via Belenzani, 12  
38122 Trento - Italia

**Object:** Additional information request application form Doctoral School in Biomolecular Sciences, submitted by Mr./Ms. \_\_\_\_\_

I require to add the following listed and attached documentation to the application form mentioned in the object.

Attachment/attachments: (please provide a description of each attached document in the spaces below (f.i.: certificate attesting the knowledge of the English language; scientific publications, documentation concerning awards, grants, research activity etc.)

Type of document \_\_\_\_\_

Type of document \_\_\_\_\_

Type of document \_\_\_\_\_

Type of document \_\_\_\_\_

Type of document \_\_\_\_\_