

Notice of Open Competition for Admission to PhD Programs Related to the 36th Cycle - Academic Year 2020/2021

The three-year PhD programs listed below are activated, for the academic year 2020/2021, in the context of the 36th Cycle, with administrative offices at the University of Teramo. A public exam on the qualifications and tests are called for admission to mentioned PhD Programs.

PhD in "Historical studies from the Middle Ages to the contemporary age"

Degree title required	All master's degrees with a degree thesis on a historical discipline or a historical subject.
Positions available	6
Positions available with a grant	5
Positions available with a grant reserved for graduates from foreign Universities	1
Coordinator	Prof. Massimo Carlo Giannini

PhD in "Cellular and Molecular Biotechnologies"

Degree title required	All master's degrees
Positions available	8
Positions available with a grant	6
Positions available with a grant reserved for graduates from foreign Universities	1
Number of seats reserved for employees ASSUT EUROPE SpA	1
Research projects covered by a grant	Candidates interested in study grants must submit, together with the application, a specific research project indicated below
Coordinator	Prof.ssa Barbara Barboni

PhD in "Food Science"

Degree title required	Possession of one of the following degrees: LM-6 Biology; LM-7 Agricultural Biotechnology; LM-8 Industrial Biotechnology; LM-9 Medical, veterinary and pharmaceutical biotechnology; LM-13 Pharmacy and industrial pharmacy; LM-22 Chemical engineering; LM-42 Veterinary medicine; LM-54 Chemical Sciences; LM-56 Economics; LM-60 Sciences of nature; LM-61 Sciences of
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	human nutrition; LM-69 Agricultural Sciences and Technologies; LM-70 Food science and technology; LM-71 Sciences and technologies of industrial chemistry; LM-73 Forest and environmental sciences and technologies; LM-75 Sciences and technologies for the environment and the territory; 6 / S (specialist in biology); 7 / S (specialist in agricultural biotechnology); 8 / S (specialist in industrial biotechnology); 9 / S (specialist in medical, veterinary and pharmaceutical biotechnology); 27 / S (specialist in chemical engineering); 62 / S (specialist in chemical sciences); 77 / S (specialist in agricultural science and technology); 78 / S (specialized in agri-food science and technology); 79 / S (specialized in agro-technical sciences and technologies); 81 / S (specialized in industrial chemistry sciences and technologies); 92 / S (specialists in statistics for experimental research) - In the case of requests for graduates with a degree class other than those indicated, the jury will evaluate the possible admission according to particular curricular requirements that may make the candidate suitable for carrying out activities in the field of food sciences
Positions available	5
Positions available with a grant	5
Research projects covered by a grant	Candidates interested in study grants must submit, together with the application, a specific research project indicated below
Coordinator	Prof. Dario Compagnone

PhD in "Veterinary Medical Sciences, Public Health and animal welfare "

Degree required	title	Possession of one of the following degrees: LM-6 Biology; LM-9 Medical, veterinary and pharmaceutical biotechnology; LM-17 Physics; LM-21 Biomedical Engineering; LM-32 Computer engineering; LM-42 Veterinary medicine; LM-54 Chemical Sciences; LM-69 Agricultural Sciences and Technologies; LM-70 Food science and technology; LM-77 Economics and Business Sciences; LM-86 Zootechnical sciences and animal technologies; 6 / S (specialist in biology); 20 / S (specialist in physics); 26 / S (specialist in biomedical engineering); 47 / S (specialist in veterinary medicine); 62 / S (specialist in chemical sciences); 78 / S (specialized in agri-food science and technology); 79 / S (specialized in agro-technical sciences and technologies); 84 / S (specialist in business economics)
Positions available		9
Positions available with a grant		7
Positions available with a grant reserved for graduates from foreign Universities		1 funded with funds from the Department of Excellence - Demetra project
Positions available without a grant		1
Coordinator		Prof. Fulvio Marsilio

PhD in "Processes law harmonization between history and system"

Degree required	title	All master's degrees
Positions available		5

Positions available with a grant	3
Positions available with a grant reserved for graduates from foreign Universities	1 – candidates with a degree from a foreign university will not take the written exam.
Positions available without a grant	1
Coordinator	Prof.ssa Paola Bellocchi

PhD in "International Perspectives in Corporate Governance and Public Administration"

Degree title required	All master's degrees
Positions available	8
Positions available with a grant	2
Positions available with a grant reserved for graduates from foreign Universities	1
Positions available without a grant	2
Number of seats reserved for CNR employees	3
Coordinator	Prof. Romano Orrù

PhD in "Economic and social sciences"

Degree title required	All master's degrees
Positions available	7
Positions available with a grant	3
Number of seats reserved for employees ELITAL Srl – Metron Srl	3
Positions available without a grant	1
Coordinator	Prof. Christian Corsi

The number of grant may be increased as a result of additional funding made available after the publication of this announcement. Any increase in the number of scholarships may determine the increase in the total number of positions available. This increase will be communicated exclusively on the University website (<http://www.unite.it>).

Admission Requirements

The application for the call may be submitted without any limitations of age and citizenship, by those who hold the above mentioned qualifications or appropriate foreign qualifications at the date of expiry of the call or by those who will obtain the required qualifications for admission by October 31, 2020. The equivalence of the foreign qualification is ascertained by the PhD Committee on the basis of the documentation presented by the candidate together with the application for admission to the admission competition (*).

The lack of the above mentioned requirements will lead to the exclusion from the procedure at any time, with a written notice of the person in charge of the procedure.

Research projects funded with a grant for a PhD course in "Cellular and Molecular Biotechnologies"

Borsa1

Funding University institution: Università degli Studi di Teramo

Subject for developing the research project :

EN Design and realization of a 3D innovative system for *In Vitro* Fertilization in mammals.

Brief description of research subject

Recent reports from important International Agencies are converging in demonstrating as Human fertility is continuously decreasing over time. This implies the worsening of wellness condition of thousand couples, the increase of National Health Services expense and the aging of population, with great societal and economic costs. As therapeutic strategy, an even larger number of couples recur to the Assisted Reproductive Technology (ART) that has acquired an enormous importance since the first world's baby conceived by in vitro fertilization (IVF), in 1978. A successful fertilization can be achieved by IVF, in which spermatozoa are free allowed to fertilize in vitro matured oocytes, or by ICSI (Intra-Cytoplasmic Sperm Injection), a more invasive technique in which a single spermatozoa is directly injected into the oocyte.

Unfortunately the success ratio of these techniques is still far to be satisfying and it has been suggested that the adoption of ARTs could lead to an increase of epigenetic problems in embryos. Thus, the present project is aimed to design and realize a new 3D device in which it will be possible to carry out the IVF in presence of the physiologic components of the system: the oviductal epithelial cells (OECs) and the oviductal fluid. In particular it will be focused on the adoption of mammalian models (swine and mouse) to develop culturing systems of OECs, to develop IVF protocols in presence of OECs and/or tubal fluid and to optimize the system (3D printing, control of flows within the device, control of temperature). Then it will be possible to realize a "more physiological" system with possible positive effects on performance and safety of IVF.

Borsa 2

Funding University institution: Università degli Studi di Teramo

Subject for developing the research project: Study the effect of three dimensional biomimetic scaffold on the biology of stem cells for tendon tissue engineering.

Brief description of research subject Regenerative medicine represents a potential treatment for the cure of currently incurable pathologies, such as tendinopathies. In this context, the challenge is to be able to develop innovative tissue engineering therapies that combine the properties of the scaffolds and the regenerative potential of stem cells by supporting the insufficient progenitor cells within the adult tendon. The proposed doctoral research aims to develop and test a three dimensional tendon biomimetic synthetic scaffold, with mechanical and structural characteristics similar to the native tissue, with stem cells in order to test its teno-inductive and immunomodulatory properties on the engineered cells. The PhD project involves a detailed analysis of the molecular pathways involved in the mechanosensitive YAP / TAZ

signaling, cellular teno-differentiation and analysis of the effect of the scaffold on stem cell immunomodulation.

Borsa 3

Funding University institution: Università degli Studi di Teramo

Subject for developing the research project: *In silico* and experimental study of the molecular interactions involved in the functional modulation of endogenous systems.

Brief description of research subject: *In silico* and experimental study of the biochemical and molecular interactions responsible for the functional modulation (e.g. receptors binding, enzymes activities, transport and trafficking, as well as genes regulation) of endogenous systems that metabolize and regulate the signaling of bioactive lipids. The relationship between experimental and *in silico* simulation would help on the understanding on atomic phenomena that will be studied along the project (i.e., structure-activity relationship, mutagenesis, agonist/antagonist modulation, etc.). The results expected from this doctoral project are aimed to develop new therapeutical treatments in disease where the homeostasis of this endogenous systems is compromised.

Borsa 4

Funding University institution: UNIVERSITA' DELL'AQUILA

Subject for developing the research project: New molecules for the treatment of high needs pathologies of the eye.

Brief description of research subject: Neurological diseases of the eye are a clinical need not satisfied so far, and in the last years, a significant increase of the pharmacological research focused on the identification of targeted therapies for orphan diseases has been observed. The project aims to study the molecular mechanisms underlying neural degeneration and sensorial deficit with the frequent target to identify and develop new targeted therapies for the treatment of high need cure such as dry eye paralleled by damage to corneal innervation and some neuropathies of optic nerve and retina.

Borsa 5

Funding University institution: UNIVERSITA' DELL'AQUILA

Subject for developing the research project: Sviluppo biotecnologico di microalghe come alternativa sostenibile per il trattamento di reflui industriali.

Brief description of research subject: The project aims to develop microalgae strains improved in their growth capacity in wastewater, to allow effective recycling and valorization of the nutrients present in industrial wastes, including carbon, nitrogen, and phosphorus. The microalgae obtained from these growths can be a valuable source of natural products, including carotenoids, antioxidants, and pigments, as well as being used as feedstock or for the production of biodiesel. Microalgae cultures that can be used as cell factories for other high-value products, including recombinant proteins, will also be obtained through genetic engineering techniques.

Borsa 6

Funding University institution: UNIVERSITA' DELL'AQUILA

Theme title for developing the research project: Iron metabolism and genome instability in neurodegenerative disorders.

Brief description of research subject: The redox properties and the coordination chemistry of iron make this metal ideally suited for a variety of biological functions; as such, iron is used as a catalytic and structural cofactor by enzymes involved in crucial biological processes. The very same properties, however, make iron potentially harmful by virtue of its ability to participate in the production of noxious pro-oxidants. Iron, therefore, must be carefully shielded into proteins coordination sites, and its trafficking and storage must be tightly regulated to limit levels of highly reactive, free metal. Iron accumulation is a common trait of neurodegenerative diseases, including Parkinson's disease. Iron-mediated production of pro-oxidant causes detrimental chemical alterations in nucleic acids and culminates in DNA damage

accumulation, which is sufficient to elicit mitochondrial dysfunction, alterations in protein homeostasis, and neuroinflammation - all of which are central to the pathogenesis of neurodegenerative disorders. Mitigation of iron accumulation via chelation and/or modulation of its endocytic intracellular uptake constitute appealing therapeutic avenues to alleviate disease progression. This PhD project will explore the efficacy of such treatments on DNA damage accumulation, mitochondrial dysfunction, protein aggregation, and neuroinflammation in multiple cellular and in vivo models of Parkinson's disease, including reprogrammed neurons from patients' pluripotent stem cells and mouse models of proteotoxic stress.

Borsa 7

Funding University institution: Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise

Subject for developing the research project: *Evaluation of the interaction among L. monocytogenes strains, with different virulence characteristics, in complex foods by using genomic and predictive methods*

Breve descrizione della tematica/ Brief description of research subject: Not all bacterial strains contaminating food can be isolated with traditional lab tests. Bacterial strains sharing the same habitat, moreover, can be synergistic, non-influencing each other, or antagonist. Strain prevalence may cause false-negative samples, because dominant strains' multiplication prevents from the isolation of the strain of interest (e.g. strain causing a food-borne disease).

The aim of the doctorate is to acquire new knowledge related to the antagonistic behaviour of L. monocytogenes strains, using whole genome sequencing, metagenomics and culture-independent microarray methods. The acquired knowledge will allow predictions related to the management of the activities to be carried out during foodborne outbreaks investigations and to improve listeriosis surveillance activities in Italy.

Borsa 8: borsa Industriale

Funding Company: ASSUT Europe S.p.A.

Theme title for developing the research project: Biological materials for medical device.

Brief description of research subject: The project intends to carry out studies aimed at selecting the type of animal species and race, the body district and the age of the subject in order to identify the starting biological material in order to develop medical devices for various types of surgical applications. Different decellularization protocols and stabilization through derivatization reactions will also be developed on the selected biological samples (e.g. cross-linking analysis with aldehydes, formation of derivatives with covalent bond, surface derivatization, etc.). Finally, industrial transferability studies of the developed medical devices will be carried out.

Candidates interested in scholarships will have to present, together with the application, a specific research project on one of them.

Research projects funded with a grant for a PhD course in "Food Science"

Progetto n.1

Tutor: Dino Mastrocola; Co-Tutor: Maria Martuscelli

Title: Survey and exposure assessment of biogenic amines in food and beverage.

Summary: Many possible factors influence the accumulation of biogenic amines in food, related both to agronomical practices and manufacturing processes. The literature reports that the occurrence of biogenic amines in many foods is quite common and inevitable. Biogenic amines have different safety threshold values depending on the physiological conditions of consumers. For subjects in specific physiological conditions (histamine intolerance, taking a class of drugs that inhibit monoamine oxidase enzymes), the risk of creating toxic reactions is related to the composition of the whole meal. The

project would aspire to collect a large data set on nutritional behaviour of some consumer groups, for establishing biogenic amines profiles fingerprint of meals and provide a scientific basis for real risk assessment of biogenic amines in the human intake.

Progetto n.2

Tutor: Prof.ssa Clemencia Chaves Lopez

Project title: Study and optimization of cold atmospheric plasma treatment for the reduction of fungi and mycotoxins in dry fruit.

Description of the project

Cold atmospheric plasma (CAP) technology is an innovative, emerging technology that could be applied for decontamination and stabilization in the food industry both on packaging material but also on the surface of perishable foods. Indeed, the emergence of new pathogens contaminating the products and changes of production technologies and of consumer's lifestyle and requirements are posing new and peculiar challenges. The application of new food processing technologies to reduce fungal contamination and mycotoxin content are one of the most interesting and popular topics since they are related to food safety. The limited studies on the effect of plasma against fungi indicate several damages in the cell. The CAP efficacy depends on the fungal species, microbial load food composition and surface conditions. Therefore, studies on antifungal activities with more diverse strains and species are required to better understand the complex mechanisms of fungi in responses to cold plasma. In addition the studies non the inactivation of the mycotoxins, which presence is increasing as a consequence of global climate change are scarce.

Objective: This research proposal is intended to contribute to a better understanding of the mechanisms of fungal behavior and mycotoxin inactivation after cold plasma treatment as well as to evaluate the effect on the some enzymatic activity of minimally processed products, in order to have broader and useful applications in food decontamination.

Progetto n.3

Tutor: Dr.ssa Maria Schirone

Project title: Proteomic and transcriptomic study on hypovirulent and hypervirulent strains of *Listeria monocytogenes*

Description of the project: *Listeria monocytogenes* is a Gram-positive foodborne bacterium causing listeriosis. It is a ubiquitous microorganism which can multiply and survive at refrigeration temperature. Although listeriosis is less common than other foodborne diseases, the hospitalization and fatality rates are high and can vary as function of different factors as the level of contamination of food ingested and the individual sensitivity. In particular, such zoonosis can affect predominantly immunocompromised individuals, elderly and young people, and pregnant women. Comparative studies performed by independent-culture techniques (PFGE and MLST) on *L. monocytogenes* strains, isolated from different origins (clinical case or foods), have an important key-role for the scientific field, in order to improve the knowledge about physiology and biochemical and metabolic characteristic of such pathogen. The aim of this study is the virulence assessment of different *L. monocytogenes* strains, grown at several environmental conditions, using proteomic and transcriptomic techniques.

Progetto n.4

Tutor: Prof. Giuseppe Martino

Development of new eco-sustainable breeding technologies for the improvement of the quality and safety of dairy products and animal welfare

In recent years, the trends in the consumption of dairy products have undergone profound changes linked to sociological and economic factors that have radically changed consumer preferences. A significant drop in the purchase of generic dairy products was offset by an important increase in so-called "healthy" products that show beneficial properties for human health, as well as sustainable from both an economic and environmental point of view.

Therefore, the doctoral project aims to identify innovative breeding strategies in order to improve the production processes in the dairy sector. Specifically, particular attention will be given to the recovery and valorization as animal feed of by-products coming from the agri-food industry, also in association with supplements, with the main purpose of obtaining dairy products with high health value also addressed to groups of individuals with specific nutritional needs.

In addition to this, the effect of these experimental diets on animal welfare will be also assessed, by characterizing the presence and function of specific markers of the antioxidant and anti-inflammatory response. Lastly, with regard to the aspect strictly associated with environmental sustainability, assessments will be carried out on the methanogenic ruminal microbiome, in order to evaluate the effects of nutrition on rumen fermentation and therefore on the greenhouse gases emission.

Progetto n.5

Tutor: Prof. Dario Compagnone

Project title: Development of sensors and sensing strategies for food biomarkers based on emerging nanomaterials using affordable bench-top technologies

Project overview

Commercial electrochemical sensors and optical conventional supports, despite being fully widespread, present some limitations regarding their default design, rigid substrate, sustainability, and often analytical performance. In this regard, flexible plastic and paper-based substrates for sensors and sensing strategies represent a research hot topic. In particular, the boosting of tailorable alternative supports as paper, flexible plastics, filters substrate, etc. can be improved through the use of consolidate (e.g carbon black, single walls nanotubes, etc.) and emerging nanomaterials (e.g graphene, graphene-like materials, transition metal dichalcogenides). Nanomaterials are used in electroanalytical and optical applications because of their ability to lower detection overpotentials of several analytes, act as sensing probes and catalysts, increase sensitivity and reproducibility, provide unique and useful properties, as well as for their low-cost. These features, make these materials powerful tools for the analytical detection of analytes of interest in the agri-food sector.

Therefore, this project aims to explore new benchtop technologies for 'sensors' realization, combining alternative materials as sensors substrates, as well as nanomaterials as sensing elements used in an alternative and affordable way. In this regard, flexible plastics devices will be realized using different nanomaterials, and the exfoliation of new materials (i.e. transition metal dichalcogenides) will be attempted using different solvent and bio-compatible natural surfactants. The project aims to realize sustainable, both in economic and environmental terms, sensors and sensing strategies devoted to assessing food quality and safety, with analytical performance comparable or improved compared to the commercial sensors.

Candidates interested in scholarships will have to present, together with the application, a specific research project on one of them.

Additional grants "PON Innovative Doctorates with Industrial characterization"

The University of Teramo participates in the call for competition *"PON Dottorati Innovativi con caratterizzazione industriale"* with proposals for the assignment of additional grants within the scope of all doctorate courses.

Admission procedure

Admission to the PhD courses is based on the evaluation of qualifications and interview and is divided into two phases.

In the first phase the Selection Committee proceeds to evaluate the following qualifications, giving each candidate a maximum score of 20 points according to the following division:

1) PhD in "Cellular and Molecular Biotechnology".

to. thesis abstract: maximum 4 points;

b. research project developed by the candidate, consistent with the topics of the course: maximum 7 points;

c. scientific curriculum vitae (university career including profit exams with the specific indication of the individual marks and the relative average - letter \ and reference of university professors or qualified scholars and any professional, training and / or research experience, degree of knowledge of foreign languages and other qualifications held): maximum 4 points;

d. any publications: maximum 5 points.

2) PhD in "Food Sciences".

to. scientific curriculum vitae and university career including profit exams with the specific indication of the individual marks and the relative average: maximum 8 points;

b. letter \ and reference from university professors or qualified scholars and any professional experience: maximum 1 points;

c. any publications: maximum 1 points.

d. quality of the research project proposal developed by the candidate, consistent with the course topics: maximum 10 points.

3) PhD in "Veterinary Medical Sciences, Public Health and Animal Welfare".

to. thesis abstract: maximum 8 points;

b. research project developed by the candidate, consistent with the topics of the course: maximum 6 points;

c. scientific curriculum vitae (university career including profit exams with the specific indication of the individual marks and the relative average - letter \ and reference of university professors or qualified scholars and any professional, training and / or research experience, degree of knowledge of foreign languages and other qualifications held): maximum 4 points;

d. any publications: maximum 2 points.

4) PhD in "Law harmonization processes between history and system".

to. scientific curriculum vitae (comprehensive university career profit exams and graduation marks; abstract thesis;

n. 1 letter of reference from university professors or scholars qualified; knowledge of foreign languages): maximum points 8;

- b. research project developed by the candidate, consistent with the course topics, indicating the scientific disciplinary sector of reference: maximum 8 points;
- c. any professional, educational and / or research experiences, relevant to the topics of the doctorate; any publications equipped of ISBN or ISSN related to the topics of the doctorate: maximum points 4.

5) PhD in "Economic and Social Sciences".

- to. degree thesis abstract: maximum 3 points;
- b. university career including the exams taken and the graduation mark: maximum 3 points;
- c. reference letter (s): maximum 1 points;
- d. any publications: maximum 5 points;
- is. any professional experience and other qualifications held by the candidate: maximum 3 points;
- f. f. a research project developed by the candidate, consistent with the topics of the course, which does not constitute a constraint for the subsequent choice of the doctoral thesis: maximum 5 points.

6) PhD in "Historical Studies from the Middle Ages to the Contemporary Age".

- to. abstract of the old legal or master thesis consistent with the subject areas of the course (minimum abstract length 2,000 - maximum 8,000 characters, spaces included): maximum 4 points;
- b. quality of the research project, consistent with the topics of the course, developed by the candidate (minimum length 8,000 - maximum 10,000 characters, spaces included): maximum 8 points;
- c. scientific curriculum vitae (university career including exams with the specific indication of the individual marks and the relative average - 1 letter of reference from a university professor or scholar / or qualified / or of recognized prestige; any professional experience, study and / or research; degree of knowledge of foreign languages and other qualifications held): maximum 4 points;
- d. any publications: maximum 4 points - it should be noted that only publications of proven scientific nature and endowed with ISBN or ISSN will be evaluated.

7) PhD in "Corporate Governance, Administration and Society in the International Dimension".

- to. thesis abstract (min.2,000 characters - max 8,000 characters, spaces included): max 2 points;
- b. research project developed by the candidate, consistent with the course topics: maximum 10 points;
- c. scientific curriculum vitae (university career including profit exams with the specific indication of the individual marks and the relative average - letter \ and reference of university professors or qualified scholars and any professional, training and / or research experience, degree of knowledge of foreign languages and other qualifications held): maximum 5 points;
- d. any publications: maximum 3 points.

The second phase is the interview which is only for candidates who have achieved a minimum score of 12 points. The list will be published on the university website after the assessment of all the qualifications.

The oral test will consist of an interview of the candidate with the Academic Board designed to test the knowledge on the topic of a relevant doctoral course and to discuss the proposed research project. The knowledge of the English language is also always verified during the interview. The interview may be conducted entirely in English if requested by the applicant. The interview may be conducted via computer (via Skype) if required in the process of submission of the application by the candidate residing abroad or by the candidate with a disability. The interview will be considered passed only if the candidate will be awarded a minimum score of 24 points.

The maximum score for each candidate for the oral exam is 40 points. At the end of the interview the Selection Committee will proceed to identify the suitable candidates who will be placed in the

general ranking, expressed in sixty, based on the sum of the scores obtained by the candidates according to the evaluation of the qualifications and the interview.

The information about the oral test, indicating the date, time and place in which it takes place, will be published on the university website at least 7 days before taking the oral test. For the interview candidates must bring a valid ID.

If the situation due to the health emergency requires it, a notice will be published on the University website informing that all the interviews will be carried out remotely and that the written test required for the doctoral course in "Harmonization processes of the right between history and system "will not be carried out, in this case the scores that the Commission for admission to the course must assign a score for the interview of a maximum of 40 points.

Application and submission deadline

To participate in the competition the candidate must complete and submit the application form – together with all attachments - using only the form available in the online procedure on the University website (www.unite.it).

The application must be submitted, under penalty of exclusion, no later than midnight on the thirtieth day following the publication of this announcement on the University website. If the expiry date indicated falls on an holiday day, the deadline is extended to the first following working day. The candidate can submit only one application for each PhD course.

Reserved places for graduates from foreign universities

For some PhD program there is a reserve of positions intended for graduates who have obtained all the qualification to enter the PhD program at a foreign University.

Contributions for the access and the attendance of the courses

All students enrolled in doctoral courses are required to pay € 140 per year as a regional tax in favor of the Company for the Right to University Studies, together with the stamp duty amount of € 16 for each year and € 32 for the issue of the parchment. All payments must be made through MAV, generated in the appropriate section of the University website.

Study grants

The financial support is awarded to the candidates according to the ranking.

The amount of the grant, to be paid in monthly installments, is EUR 15,343.28, gross of fees to be paid by the PhD student, according to current law.

The PhD grant is subject to the payment of INPS social security contributions.

This amount is increased to a maximum of 20 percent, for a maximum period of 18 months and a minimum of 30 days, if the doctoral student is authorized to carry out the research abroad.

Starting from the second year, a budget for research activities in Italy and abroad within the existing financial resources is guaranteed for each student.

The recipient of the study grant must have a gross annual total personal income not exceeding € 15,000.00 in the years of prevalent use of the grant.

The determination of this income, which is that related to the year of awarding the grant, includes all the patrimonial income, well as emoluments of any other nature, with the exception of those with an occasional nature or deriving from military service.

The grant cannot be cumulated with any other grants, except with those awarded by national or foreign institutions aimed at integrating, with the periods abroad, the training or research activity of the PhD students; in this case the right to the expected increase of the grant is lost.

(*) Academic title awarded abroad: university degree obtained abroad must be comparable to the title of Master of Science in duration, level and subject area. In accordance with this principle, acting on their eligibility with the Academic Board. Applicants who have a foreign qualification that has not already been declared equivalent (1) to an Italian degree will make implicit request for equivalence in their application for admission, must attach the following documents: certified the degree with exams and the corresponding vote (EU citizens may submit a self-certification according to Presidential Decree no. 445 of 28.12.2000, as amended, English translation, if the document is not already in that language, the certificate the degree earned, with exams taken and grades obtained, signed under their own responsibility, in order to allow the teacher to assess their suitability, solely for purposes of participation in the contest; any other documentation deemed useful to assess the eligibility of the title held for participation in the competition (Diploma Supplement (2), or declaration of local value (3), etc.). Candidates holding a degree not achieved in Italy winners of the contest must submit to the Service PhDs by February 28, 2021: Declaration of Value-site together with the degree certificate with exams and grades, translated and authenticated by Italian diplomatic authorities in the country where the institution that issued it. The Value Statement must certify that the qualification obtained is valid in the country of graduation for enrollment in an academic course similar to the Ph.D.; or, if the Value Statement above is not yet ready for the date indicated, a document showing that the release request has been submitted to the diplomatic mission of competence; In this case, the student must then deliver the Declaration of Value in the original as soon as available; or, as an alternative to Value Statement, the Diploma Supplement in English, according to the model developed by the European Commission, the Council of Europe and UNESCO / CEPES. In the absence of such documents will not be achieved the title of Doctor of Philosophy.

(1) For more information visit the web page <http://www.cimea.it/default.aspx?IDC=113>.

(2) With Diploma Supplement is a document attached to a diploma of higher education with the aim of improving the 'transparency' international and facilitate academic and professional recognition of the qualifications (diplomas, degrees, certificates, etc.). The Diploma Supplement should be issued by the same institution that issued the license. More details on the website: http://ec.europa.eu/education/lifelong-learning-policy/doc1239_en.htm.

(3) The Value Statement is issued by the Italian diplomatic missions abroad (embassies / consulates) competent. For more information, visit <http://www.cimea.it/default.aspx?IDC=118>.