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## NOTICE OF PUBLIC SELECTION FOR PH.D. PON SCHOLARSHIPS AT UNIVERSITY MAGNA GRÆCIA OF CATANZARO - XXXVII CYCLE - A.Y. 2021/22

Decree of the Rector n.1272/2021

**PLEASE NOTE: THE OFFICIAL VERSION OF THIS CALL IS IN ITALIAN AND IS AVAILABLE ON THE MAGNA GRÆCIA UNIVERSITY WEBSITE**

**THIS TRANSLATION CANNOT BE USED FOR LEGAL PURPOSES AND IS ONLY MEANT TO PROVIDE INFORMATION IN ENGLISH ON THE CALL FOR APPLICATION**

**DEADLINE: 18 OCTOBER 2021 – 12.00 A.M. (Italian time)**

### THE DEAN DECLARES

#### Art. 1 – Public Selection Announcement

In compliance with Ministerial Decree n. 1061/2021 “Allocation of financial resources for Ph.D. courses in the fields of Innovation and Green” funded by PON (Programma Operativo Nazionale) – R&I -2014-2020, with FSE – REACT EU resources, we hereby announce the public selection, through competitive examinations, for additional scholarships than Ph.D. Courses, three-year-long, planned by the Catanzaro *Magna Graecia* University for academic year 2021/22 - XXXVII cycle (Call D.R. 963/2021), listed below:

**BIOMARKERS OF CHRONIC AND COMPLEX DISEASES**

**MOLECULAR AND TRANSLATIONAL ONCOLOGY AND INNOVATIVE MEDICAL-SURGICAL TECHNOLOGIES**

**LIFE SCIENCES**

**EUROPEAN LEGAL AND ECONOMIC SYSTEMS**

**PSYCHOLOGY**

For all the Ph.D. courses reported in the previous paragraph, places with scholarship are activated correlated to the following research themes:

- Innovation, innovative technology and digital technology as methods to enhance human capital in the field of research and innovation;
- Green themes (themes concerning the preservation of the ecosystem and biodiversity as well as the reduction of impacts of climate change and the promotion of sustainable development). **The places with scholarship advertised in this Call are additional to those already activated for the XXXVII cycle with Rector’s Decree n. 963 26.07.2021.**

The Ph.D Courses in Biomarkers of chronic and complex diseases, Molecular and translational oncology and innovative medical-surgical technologies, Life sciences and European legal and economic systems are divided in curricula.

**Candidates must submit a research project that must be inherent to the educational objectives described for each course in Annex A of this announcement, with reference to the chosen curriculum, if present. The project must be inherent to the topic indicated for each additional scholarship in the same Annex A ; the project presented must be correlated to the following themes provided for by art. 2, paragraph 1 letter. a) and lett. b) of the Ministerial Decree 1061/2021, indicated below:**



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Scholarships Theme (Action IV.4)	Nr. Additional Scholarship
Innovation, innovative technology and digital technology as methods to enhance human capital in the field of research and innovation	14
Scholarships Green Theme (Action IV.5)	Nr. Additional Scholarship
Green themes (themes concerning the preservation of the ecosystem and biodiversity as well as the reduction of impacts of climate change and the promotion of sustainable development).	14

The project must be drafted according to the details indicated for each PhD course in the aforementioned Annex A, using the template available on website <https://web.unicz.it/it/category/bandi-ateneo>; the research project can be presented in English or in Italian.

Research projects must refer to the aforementioned issues and be consistent with those defined in the National Strategy of Intelligent Specialization (SNSI) (<https://www.agenziacoesione.gov.it/s3-smart-specialisation-strategy/strategia-nazionale-di-specializzazione-intelligente/>) and with the National Research Program (PNR) (<https://www.mur.gov.it/it/aree-tematiche/ricerca/programmazione/programma-nazionale-la-ricerca>).

For each of the Ph.D. programmes, Annex A – Details of A.Y. 2021/22 Ph.D. PON Additional Scholarships, integral part of the present Call for applications, outlines the scientific-disciplinary sectors and the academic fields, educational objectives, proposed *curricula*, duration, name of the Coordinator and his e-mail, degrees required for admission, number of positions and scholarships offered for each theme (innovation or green), research topic for each scholarship and competition code, abstract, tutor, research period in private enterprise/company, period abroad, project details, date and link of the qualifying examinations, dates of results publication for qualifications evaluation and foreign language requirement.

The present Call for Applications acts as official notification. Amendments, updates or additions will be published exclusively on the website of the University at the address <https://web.unicz.it/it/category/bandi-ateneo>.

University of Catanzaro reserves the right to modify, suspend, revoke this notice in relation to new legal provisions or for proven reasons of public interest, without any claim or right for applicants.

The effective activation of each of the places with PON additional scholarship reported in table included in paragraph 1 is subject to assignation by November 9<sup>th</sup> 2021 of the places with scholarship financed through University's funds, as in the Call for applications issued with Rector's Decree n. 963 of July 26 2021.



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**The effective activation of each of the places with PON additional scholarship is subject to Academic Senate coherence judgment on project refer to Innovation theme and Green theme and to National Strategy of Intelligent Specialization (SNSI) and with the National Research Program (PNR).**

**The effective activation of each of the places with PON additional scholarship is also subject to the judgement of admissibility to the funding through the National Operational Program “Research and Innovation” 2014-2020 issued by the Ministry of University and Research.**

### **Art. 2 – Admission requirements**

Anybody possessing a “**laurea magistrale**” belonging to one of the degree classes indicated in the respective programme profile, that is a degree obtained under regulations prior to Italian D.M. 509/1999, approved with D.I. 9 July 2009, **or any suitable foreign degree**, as well as those who will obtain at an Italian University the required qualifications for admission by no later than 31 October 2021 (failure to do so will result in exclusion from the selection process), may apply to take part in the selection process for admission to the Ph.D. programmes listed in **Annex A – Details of A.Y. 2021/22 PH.D. PON ADDITIONAL SCHOLARSHIPS**, without age or citizenship limits.

Foreign qualification suitability will be established by the Ph.D. committee following the guidelines and current regulations in Italy and in the qualification issuing country, as well as of treaties or international agreements on qualification recognition for further study and will have to be confirmed by the Academic Senate.

**In the case of a qualification obtained abroad, candidates must attach to their application in appropriate section “RICONOSCIMENTO TITOLO ESTERO” the request for recognition of the qualification** (exclusively for purpose of participating in the competition) and any document which might be relevant to the assessment, translated and certified by the relevant Italian bodies in the country of origin, and following current regulations for the admission of foreign students to Italian University post-graduate programmes.

**The fac simile of the request is available on the website <https://web.unicz.it/it/category/bandi-ateneo> .** Anyone expected to obtain their Italian degree in the period between application and the 31 October 2021 will be admitted conditionally and will be expected to present to Area Affari Generali, University Magna Graecia of Catanzaro, within five (5) days from the obtainment of the qualification, and in any case and no later than 5 November 2021 a statement *in lieu* of the certificate, containing the name of the qualification issuing University, the date of obtainment, the type of diploma (*vecchio ordinamento, specialistica/magistrale*) and relative marks, accompanied by a valid piece of ID, exclusively **via PEC (certified mail)** at [protocollo@cert.unicz.it](mailto:protocollo@cert.unicz.it). Failure to do so will result in their exclusion.

### **Art. 3 – Applications procedures**

**Candidates may apply for more than one Ph.D. programme but they may choose only one curriculum for each programme. Failure to do so will result in their exclusion.**

Candidates must choose a **single research topic for each PhD course** for which they are applying, or in the Green field **or** in the Innovation field.

Candidates wishing to apply for more than one Ph.D. programme must present separate applications, **one for each Ph.D. programme they are applying for.**

In case of application to more than one Ph.D. programme, it is necessary to **declare in each application the order of priority of the Ph.D. programmes applied for; such order must be identical in each of the application forms; failure to comply will result in exclusion from applications subsequent to the first application.**

Should the candidate result suitable for more than one Ph.D. programme, the order of priority expressed in their application will, through declaration *in lieu* of *affidavit*, be considered a binding criterion for programme admission.



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**Applicants can submit their application** (including the documentation shown below) **exclusively using the online form** available at <https://unicz.esse3.cineca.it/Home.do>, **from the day following the publication of the present call for application to 18 October 2021 at 12:00 noon (Italian time).**

The submission of the application takes place automatically with the definitive closure of the electronic procedure. **The validity of the application is subject to takes place with the payment of the participation fee** in the competition **within 18 October 2021 (see below).** The date and time of submission of the application are provided by the computer system.

The procedure involves an initial registration, after which you print the memo containing username and password for login to the Web portal.

However username and password will also sent via email from the email address "helpesse3@unicz.it".

**N.B.** It is required indicate a valid email address in order to recover the credentials in Esse3 System and for any communications.

For online application is available a Short Guide for admission to PhD. PON Scholarships announcement a.y. 2021/22 on the website at the following address <https://web.unicz.it/it/category/bandi-ateneo>.

**When completing the online application, it is necessary** to declare the order of priority of the courses in which you intend to participate. This order must be identical in each of the submitted applications (for those who submit a single application form: the only choice made appears in the printing of the application).

**N.B. The "QUESTIONARIO", in the section "ELENCO QUESTIONARI" is compulsory, even if you want apply for only one PhD course. When you finish filling out online procedure and click on "CONFERMA" the "Questionario" cannot be modified.**

**When completing the online application, it is necessary to upload documents in PDF (each file no larger than 20 megabytes):**

- 1) **copy of passport;**
- 2) the **research project** that must be inherent to the educational objectives described for each course in Annex A of this announcement, with reference to the chosen curriculum; The project must be inherent to the topic indicated for each additional scholarship in the same Annex A ; the project presented must be correlated to the following themes: Green or Innovation, using the template available online <https://web.unicz.it/it/category/bandi-ateneo> );
- 3) **curriculum vitae et studiorum** (the format of which must be the same as the *facsimile* available online <https://web.unicz.it/it/category/bandi-ateneo> );
- 4) the **declaration of certification exams** containing the indication of the grade, the date, **the grading system** ;
- 5) eventually, the publications, relating to the topics of the Doctorate including the degree thesis;
- 6) **Post-graduate specialization course, research fellows, research grant** relating to the topics of the Doctorate
- 7) any qualifications relating to the topics of the Doctorate;
- 8) eventually, **"Request for recognition of the foreign qualification exclusively for purpose of participating in the competition and any document and related documents** (e.g. declaration of value, Diploma supplement, etc.): **compulsory for candidates with qualifications obtained abroad;**
- 9) **a list of all documents provided.**



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The fac simile indicated nr. 8 is available on the website <https://web.unicz.it/it/category/bandi-ateneo>.

**When completing the online application it is necessary to specify in “GESTIONE TITOLI E DOCUMENTI PER LA VALUTAZIONE”, in field “TITOLO” for all documents you want to upload a meaningful name (e.g. curriculum\_vitae, project, passport).**

Until the application is completed - but always within the deadline of the call - it is possible to integrate or modify the attachments by canceling the process.

**N.B. When you finish filling out online procedure and click on "COMPLETA AMMISSIONE AL CONCORSO" the application can not be modified, and you can not cancel the process .**

After completing the application for admission - only in the case of incorrect or incomplete upload of the attachments during the online procedure – foreign candidates residing abroad can send exclusively by email to the address [affarigenerali@cert.unicz.it](mailto:affarigenerali@cert.unicz.it) within the deadline 18 October 2021, 12:00 (Italian time) any requests for changes / additions, indicating the changes and / or additions to be made. A copy of passport must be attached to the aforementioned request.

The subject of the e-mail must indicate: Integrazione e/ o modifica Domanda SURNAME Dottorato 37 \_\_\_\_\_ PON \_\_\_\_\_ (indicate, in abbreviated form, the PhD course and code to which the integration / modification refers: e.g. Biomarcatori PON03, Oncologia PON11).

Requests will not be considered if transmitted after deadline.

**Online applications will automatically close at 12:00 (Italian time) October 18<sup>th</sup> 2021.**

**The closing date is preemptory** and it is responsibility of the candidate to check the correct conclusion and sending off of the online application.

No complaints are accepted for late applications.

Candidates are strongly advised not to wait until the last few days for application. The University declines any responsibility due to technical problems, overload, or other, in its application and communication systems which may cause a delay in applications.

After filling out the online application form for selection must be printed but it is not necessary to send it within the deadline.

**Candidates must pay € 50.00 for the selection process participation fees made by “Pago PA payment” by 18 October 2021. For each application a participation fee must be paid. Applicants failing to pay within the deadline shall be excluded from the competition.** The fee is non-refundable.

Pay with PagoPA (online mode): allows you to choose between the payment instruments available: credit or debit card or prepaid card on the main circuits. Payment can be made with any credit card by selecting one of the banks that appear in the mask even if the credit card was issued by a bank other than those indicated. The application form must be submitted exclusively through online procedure described above: therefore, no delivery or shipment of paper documents to the Offices must be made by the deadline. The application for participation in paper format, duly signed, must be submitted during the enrollment phase, for all legal purposes, with a copy of passport, exclusively from the winners of the competition, according following art. 7 of this announcement.

In their application form, candidates must state clearly and truthfully, under their own responsibility:

- their personal details, date and place of birth, tax payer number, citizenship, home and contact addresses;

- the title of the Ph.D. programme applied for and the chosen *curriculum*;
- the degree possessed, stating the result, date and issuing University, or the academic qualification obtained from a foreign University, or for those in the process of finishing their Italian degree, a statement declaring the candidate's commitment to providing the declaration in lieu of degree certificate by the 31.10.2021;
- that they undertake the Ph.D. on a full-time basis, without prejudice to art. 12, c.1, of D.M. 45/2013;
- that they commit to informing the University in a timely manner of any changes to their home or contact address;
- that they have read and accepted all clauses of the call for applications, and in particular that they are aware that the selection procedures will follow the calendar set out in **Annex A, which acts as official convocation for the exams themselves without further notice, and that any changes to such calendar will be communicated exclusively through publication on the University website <https://web.unicz.it/it/category/bandi-ateneo>**;

- **the order of priority** in case of useful placement for several programmes; in case of application for more than one Ph.D. Programme, **it is necessary to declare in the online application the order of priority for the chosen programmes; the order must be identical in each of the application forms received.**

For those with a single application form: in the printing of the application appears the only choice you make

- that they are aware that the scholarships cannot be cumulated with research grants or other scholarship of any kind, except those granted by national or foreign institutions aiming at integrating the educational and research activity of the scholarship holder with trips and stays abroad;
- that they are aware of and consent to treatment of the personal data provided in the application exclusively for purposes of the selection process and future relations with the University, in accordance with European and Italian law.

In accordance with law 5/2/1992 n.104, disabled candidates or applicants with learning disabilities must explicitly state their special requirements and whether, given their handicap, they will require extra time to complete the selection exams.

**Any alternative form of application is excluded.**

**Failure to online application by 18 October 2021 at 12:00 a.m. (Italian time) or failure payment € 50.00 for the selection process participation fees by 18 October 2021 will result in the exclusion of the candidate from the selection process.**

Application forms will be automatically excluded which:

- a. Do not completed online by 18 October 2021, 12:00 a.m. (Italian time);
- b. If submitted in any different form and way;
- c. are missing the payment of €50.00 for the selection process participation fees made by 18 October 2021;
- d. do not contain electronic copy of passport;
- e. in case of application to more than one Ph.D. Programme, if applications containing a different order of priority in each application, the applications subsequent to the first will be automatically excluded;

**Following formal checks on the application received along the above stated guidelines, the list of candidates admitted to the selection process will be published, before results evaluation publication dates, on the University website at <https://web.unicz.it/it/category/bandi-ateneo>. The University will provide no other form of notification.**

Candidates will be expected to give proof of Public Administration-issued qualifications by means of a declaration in lieu of certification (or self-certification) as set out by art. 46 of D.P.R.445/2000 and subsequent amendments. **All self-certifications must contain the date and authentic signature.**

The same procedures should also be followed by:

- EU citizens;
- citizens of non-EU states who are settled in Italy, limited to the verifiability of status, personal qualities and achievements from Italian public bodies (for example, if they obtained a degree from an Italian University).

Non EU candidates who have studied abroad must attach the original certificates and their relative translations (see art. 2 above). Such candidates will be admitted to selection conditionally, and will be excluded from the Ph.D. programme should it emerge, upon verification, that the title held does not correspond to the requisites listed by the present call for applications and therefore does not allow for enrolment in the Ph.D. programme.

Candidates must attach the adequate declaration in lieu of affidavit, in accordance with art. 47 of D.P.R. 445/2000 and subsequent amendments, in which they certify compliance to the original of the publications presented. Further, candidates must declare under their own responsibility and in accordance with D.P.R. n. 445/2000 the truthfulness of the data and information in the *curriculum vitae et studiorum*.

It is necessary to specify, for all qualifications and all information included in the *curriculum vitae et studiorum*, all elements which may aid the process of verification by the Administration (e.g. *Start/end date, institution/company, duration of grant/contract, marks, position filled, etc.*)

**All candidates are admitted to selection upon condition of verification that they fulfil the requisites set out by the call for applications.**

For reasons linked to organization of workload and timeliness, effectiveness, and efficiency of administrative action, the Administration will only carry out checks on those applicants who will have taken and passed the admission tests.

The University may, at any time during the process and following the start of the Ph.D. programme, carry out checks on the truthfulness of the information provided, in accordance with law DPR n. 445/2000 and its subsequent amendments.

Should motives for exclusion be determined after the start of the programmes, the University may arrange, through a provision justified by the Dean, for the exclusion of the candidate from the selection process or the Ph.D. programme and the revoking of any related benefits, with no prejudice to the penal responsibilities for falsification of documents and false/untrue/fraudulent statement as set out in art. 76 DPR 445/2000, as may apply.

#### **Art. 4 - Judging Committees**

The Judging Committee is appointed with an ordinance issued by the dean upon consultation with the coordinator of the Ph.D. programme; it is composed of the coordinator himself, President of the Committee, and the *curricula* coordinators, always guaranteeing an odd number of components through the appointment, where necessary, of an extra component taken from the teaching body. The same ordinance appoints also substitute components taken from the teaching body.

Only for PhD course in Psychology: The Judging Committee is appointed with an ordinance issued by the dean upon consultation with the coordinator of the Ph.D. programme; it is composed of the coordinator himself, President of the Committee, and two components taken from the teaching body.

The composition of each commission will be published, after the call for applications deadline, on the website of the University at <https://web.unicz.it/it/category/bandi-ateneo>.

#### **Art. 5 – Selection Process**

Admission to the Ph.D. programme with PON scholarship will be granted on the basis of a selection process testing the candidate's knowledge and aptitude for scientific research.



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For all candidates the selection process consists of evaluation of the qualifications, evaluation of a research project focused on **the topic indicated for each additional scholarship in Annex A ; the project presented must be correlated to the following themes Innovation or Green** prepared by the candidate and in an interview that will focus on the discussion of the proposed research project and the scientific experiences. The Judging Committee will evaluate also in accordance with the criteria contained in the Ministerial Decree nr. 1061/2021.

**50 points** are reserved for the evaluation of the qualifications and of the project:

The project can be awarded a maximum score of 25 points.

Titles can be assigned a maximum score of 25 points:

max 10 for the Curriculum Vitae (CV) with attached Master's Degree certificate (or equivalent) with analytical indication of the exams taken and relative grades; for undergraduates it is sufficient to certify the exams taken and the relative marks;

max 10 points for publications related to the themes of the Doctorate, including the thesis;

max 5 points for postgraduate courses, research scholarships related to the PhD themes.

Typescripts and forthcoming papers which have not already been accepted for publication will not be considered.

The Judging Committee may proceed with the motivated exclusion, without any evaluation of the qualifications, of candidates who have submitted a research project that is not consistent with the research topic and with the aforementioned themes (green or innovation).

**For admission to the interview, the candidate is considered suitable with a score of no less than 30/50 (sum of the points relating to the evaluation of the qualifications and of the research project).**

50 points are reserved to the interview. The minimum score for passing the interview is 30/50.

During the interview will be tested knowledge of English. The candidate can decide whether to take the interview in English or in Italian.

**Exam dates for each of the programmes are listed in Annex A; this will be the only notification.** In accordance with art. 3, **successful applicants will be expected to attend the examinations via videoconference, at link on dates and times indicated below.**

**Changes to the calendar will be communicated only on the University website at the following address <https://web.unicz.it/it/category/bandi-ateneo> .**

**Results of the qualifications evaluation and of research project will be published** by the Judging Committee, by the date indicated for each programme in Annex A only **on the University website <https://web.unicz.it/it/category/bandi-ateneo> .**

**Published evaluation of the qualifications and the research project scores will constitute, for those with a score of no less than 30/50, notice of convocation to interview, with no further notification from the University.**

**Candidates admitted** following the formal verification of applications pursuant to Article 4 above and who have achieved **a score of no less than 30/50**, following the evaluation of qualifications and the project, **are required to login at virtual classroom link Meet Gmail on the day and at the time indicated in Annex A for the interview.** Hours may be subject to increasing variations.

**The link to access the virtual classroom will be published <https://web.unicz.it/it/category/bandi-ateneo>.**

For the interview candidates must have a passport.

The interviews will be carried out via Meet Gmail platform on the date established for each course in Annex A unless the Committee notifies candidates a new date. *The Committee, on the established day and time, will communicate via e-mail to candidates the link to connect. Clicking on the link, the name of the candidate will appear on the screen of the Committee that will be able to see and hear it. The Committee will ask to identify*





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*the student by asking him to bring the valid identity document to the camera. The Committee can mute the microphone of all candidates; in this way the other candidates can listen (both the Committee and the candidate questioned), effectively making the exam public. At the end of the interview the Committee will silence the microphone of the interviewed candidate and will ask the next candidate to reactivate his / her microphone (the microphone cannot be reactivated directly by the Committee).*

*The candidate must be available on the account indicated in the application form on the day scheduled for the interview, according to the calendar in Annex A. In any case, the publicity of the interviews must be guaranteed.*

*The Committee has the right to ask the candidate, before starting the interview, to frame the room and frame the table, on which there must be nothing outside the computer (it is not possible to keep books and notes, unless authorized by Committee).*

**Candidates who have not indicated a valid e-mail address for the electronic connection, who are unavailable on the day or at the established time, who do not exhibit passport or if the connection does not work, are excluded from the competition.**

The University of Magna Græcia of Catanzaro is not responsible in the event that technical problems prevent the regular interview. Please note that the University of Magna Græcia of Catanzaro does not provide technical assistance to candidates in any way and that it is the responsibility of the participants to verify both the functionality of their connection and whether the device used is suitable and functional for the connection.

**Therefore, candidates are responsible for checking for any updates on the University website at <https://web.unicz.it/it/category/bandi-ateneo> even in the proximity of the scheduled dates.**

**Changes to results publication dates for qualification and interview will be communicated only through the University website at <https://web.unicz.it/it/category/bandi-ateneo>.**

The committee will produce a written report with the minutes for each of the meetings. At the end of each interviewing session the Committee lists the interviewed candidates and establishes their scores. The list, undersigned by the Committee President and Secretary, is posted on the same day as the interviews. At completion of all examinations, the Committee produces a general list, in descending order, summing the scores obtained by candidates in the single examinations and the score obtained from the qualifications and research project evaluation.

The general list of merit will be published on the website of the University at <https://web.unicz.it/it/category/bandi-ateneo>.

The President of the Judging Committee promptly forwards the reports to the Dean who within 15 days approves by ordinance the proceedings of the selection process or rejects them where further regularisation is deemed appropriate.

From the day following the date of publication of the said official approval of the selection proceedings, on the website <https://web.unicz.it/it/category/bandi-ateneo>, shall take effect, on pain of forfeiture, the terms of submission of the application registration referred to in art. 7 of this notice.

The effective activation of each of the places with PON additional scholarship reported in table included in paragraph 1 is subject to assignation by November 9 2021 of the places with scholarship financed through University's funds, as in the Call for applications issued with Rector's Decree n. 963 of July 26 2021.

The effective activation of each of the places with PON additional scholarship is subject to Academic Senate coherence judgment on project refer to Innovation theme and Green theme and to National Strategy of Intelligent Specialization (SNSI) and with the National Research Program (PNR).

The effective activation of each of the places with PON additional scholarship is also subject to the judgement of admissibility to the funding through the National Operational Program "Research and Innovation" 2014-2020 issued by the Ministry of University and Research.

### Art. 6 – Admission to the programmes

Candidates are admitted to the programmes and granted scholarship following the order of the list of merit until the number of places offered for each programme is filled.

In case of useful placement for more than one Ph. D. Programme, the order of priority expressed in the application form will act as a binding criterion for admission.

For each PhD program, the assignment of scholarships will be made by Rector's decree on the basis of the general ranking of merit for each research topic; subsequently, any residual scholarships will be assigned to candidates, according to the order of the ranking, within the same field (green or innovation) within the limit of the number of scholarships.

In the event of any further failure to assign one or more PhD scholarships, the unassigned scholarships will be awarded by scrolling the ranking of the other PhD courses, according to the following priority criterion established by the Academic Senate:

	Ph.D Course
1	PSYCHOLOGY
2	MOLECULAR AND TRANSLATIONAL ONCOLOGY AND INNOVATIVE MEDICAL-SURGICAL TECHNOLOGIES
3	BIOMARKERS OF CHRONIC AND COMPLEX DISEASES
4	LIFE SCIENCES
5	EUROPEAN LEGAL AND ECONOMIC SYSTEMS

After the assignment of the first PhD scholarship, the order of priority will be followed starting from the next course and gradually proceeding until the assignment of all additional scholarships that may remain, within the maximum limit of the additional scholarships available for each specific topic and no later than November 19<sup>th</sup>, 2021.

### Art. 7 – Required action for successful candidates

**Successful candidates must fill online, in accordance with informations available** on the website <https://web.unicz.it/it/category/bandi-ateneo>, an enrolment form to first year; for this purpose **successful candidates must login** on the website <https://unicz.esse3.cineca.it/Home.do>, choose LOGIN, and then “Segreteria- Immatricolazione /Scelta tipologia corso di studio”. Connect with the same username and password used for the initial registration. If you have lost the username and password, you can send an you can send a ticket: <http://www.asi.unicz.it/helpdesk/>.

**N.B. Only registration online does not perfect the enrolment to first year.**

Enrolment form to first year **must be sent in paper format** (a print-out of the online application) with a **payment receipt made by Pago PA payment**.

The following documents must be attached to the Enrolment form:

- Application form printed from online procedure (see above art. 3), duly signed;
- a payment receipt of € 526,00 made by PagoPA for payment “Tassa iscrizione e frequenza corso di dottorato di ricerca (including I rata - I anno € 360,00, tax for the right to study PhD programme € 150,00 + stamp duty paid virtual system € 16,00”;
- copy of passport;
- copy of the taxpayer code (CODICE FISCALE);



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- **declaration of acceptance of the additional PON scholarship**, conditional on the clauses indicated in the previous article 5, and commitment to comply with the obligations established by the D.M. 1061/2021 (using only the facsimile available at <https://web.unicz.it/it/category/bandi-ateneo>).

**Successful candidates must send by registered post with notification of receipt**, the enrolment form to the following address: Magnifico Rettore – Università degli Studi Magna Græcia di Catanzaro – Ufficio Protocollo, Edificio Direzionale, Campus Universitario, Viale Europa, Loc. Germaneto - 88100 Catanzaro. **Failure to do so will result in their exclusion.**

Request of enrolment (with documents attached) **must arrive within and no later than 3 (three) days** after the issuing of D.R. approving selection documents and reports on the University website <https://web.unicz.it/it/category/bandi-ateneo> in one of the following ways:

**a- sent by e-mail (only for foreign citizen residing abroad ) [affarigenerali@cert.unicz.it](mailto:affarigenerali@cert.unicz.it);**

**b- sent via private courier by and no later than the above stated date.**

In any case, applications which for ever reason are not delivered within 3 (three) days from the deadline above shall not be considered even where they have been sent in good time.

No complaints are accepted for late applications. No applications sent with priority mail will be accepted.

Should the application not arrive at the destination in good time, for whatever reason, the sole responsibility for the delay lies with the sender.

Should the deadline fall on a bank holiday, it will be extended to the first next working day.

In the enrolment form candidates will have to provide/declare the following, in accordance with articles 46 and 47 of P.D.R. 445/2000 and its subsequent modifications:

- name/surname, date and place of birth, home and contact address for Ph.D. related correspondence;
- nationality and CODICE FISCALE;
- secondary school diploma or for non-Italians, the highest school diploma obtained (original document);
- a degree certificate;
- that they are not currently enrolled in any other university course (I or II cycle degrees, non-medical specialisation school, other Ph.D. programme) or their commitment to giving this up before the start of the courses; or that they are enrolled in the last year of a medical specialisation school at the University of Catanzaro, thereby recognising the University as administrative centre of the school;
- their commitment to exclusive and full time attendance of the Ph.D. course with no prejudice to the provisions of art. 12, ch.1 of D.M. 45/2013;
- that they have not previously benefited from a Ph.D. scholarship;
- that they are not in a situation of accumulation of research grants or scholarships, except for those granted by national or foreign institutions aimed at integrating, with trips or stays abroad, the educational and research activity of the scholarship holders and that they commit to respecting this condition for the duration of their Ph.D.;
- whether they are civil servants or employees of a public law institution, and in this case that they have requested and obtained paid or unpaid time off or special leave for reasons of further study, in accordance with art. 2 law 476/1984 and subsequent amendments, and if they receive payment that they renounce their scholarship;



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- that they undertake to inform the University Administration in good time of any changes in any of the above stated conditions;
- that they accept the norms of treatment of personal data.

**Candidates for assignment of the scholarship are also required to attach to the enrollment application the presumptive declaration relating to the total gross personal income. The fac simile is available on the website <https://web.unicz.it/it/category/dottorati-di-ricerca> .**

The above conditions are subject to Administration checks in collaboration with the tax and revenue authorities.

**Anyone who will not have thus officialised their enrolment will be considered to have renounced.**

In the event of non-assignment of one or more PhD scholarships, **the scholarships will be assigned to the remaining candidates based on the merit list according to the criteria established in the previous art. 6, within November 19, 2021.**

Request of enrolment (with documents attached) **must arrive within and no later than 3 (three) days** after the Notice (D.R. approving selection documents and reports) on the University website <https://web.unicz.it/it/category/bandi-ateneo> with the same procedures provided, in the previous paragraphs, for the successful candidates. candidates will have to proceed to taking the above stated steps for enrolment for successful candidates. Individual communications will not be given to candidates; Therefore, candidates are responsible for checking for any updates on the University website.

**Failure to do so will result in their exclusion.**

**In selecting candidates from the waiting list based on merit, candidates resulting already enrolled in other Ph.D. programmes or those who are enrolled with a doctoral scholarship following the D.R. n. 963 of 26.07.2021 will not be considered.**

**The start date for the programmes is the January 1<sup>st</sup> 2021; the end date is December 31<sup>th</sup>, 2024.**

In case a scholarship is declared ineligible to the PON following verification by the competent ministerial office, the candidate enrolled in the related place will lose the right to be enrolled in the Ph.D. programme. The candidate will have right to be refund of the following: € 360.00, registration and attendance fees, € 150.00 tax for the right to study, according to the procedures that will be communicated.

## **Art. 8**

### **– Scholarships**

Scholarships are assigned by ordinance of the Dean following the order established by the list of merit and the procedures set out in art. 6 above.

The yearly amount of the scholarship, before taxes, is of € 15.343,28; this is paid in monthly deferred instalments. The amount may be increased by 50% for a period should the Ph.D. candidate be authorised by the Teaching Body to carry out research activities abroad (mandatorily within the second year of Ph.D. course), if expect by the project.

For the scholarship, the limit of total gross annual personal income is set at € 15.000,00. The income refers to the year of disbursement of the scholarship.

The determination of this income is made up of income of patrimonial origin, as well as emoluments of any other nature, having a recurring and occasional nature, personal income deriving from work services with the exclusion of the amount of the scholarship or any benefits to support income paid on the basis of the scholarship (maternity allowance).



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The PhD student is required to return, even in the event of renunciation of the Course, the installements of the scholarship already received in cases where the aforementioned income limit is exceeded.

The scholarship has a yearly duration and is renewed upon completion by the Ph.D. candidate of the planned activities for the previous year. At the end of each year, candidates present a written report on their research to the Teaching Body. This is accompanied by an explicative report of the supervising professor and discussed by the candidate before the Ph.D. Teaching Body.

Scholarships cannot be cumulated with research grants or other scholarships, except for those granted by national or foreign bodies aimed at integrating the research activities of the Ph.D. candidate with trips or stays abroad.

The scholarship is subject to the payment of INPS social contributions in accordance with art. 2, c. 26, of law 8 August 1995, n. 335, and subsequent amendments, in the measure of two thirds by the administration and one part by the scholarship holder. The Ph.D. candidates benefit from all relative security and rights.

Anyone who has already benefited from a Ph.D. scholarship even for a year or a fraction of a year will not be able to benefit from one again.

Starting from the second year, to each Ph.D. candidate, excluding the supernumerary student, is assigned a budget, annually established by the Board of Directors within the existing financial resources of the University, for research activity in Italy and abroad.

As regards tax, art. 4 Law 13 August 1984 n. 476 apply to the scholarships for Ph.D. programme attendance.

**The payment of the scholarships to the successful candidates of the selection will be made after the confirmation of eligibility for the funding of the additional scholarship by the competent ministerial offices.**

#### **Art. 9 – Ph.D. students Rights and Duties**

Admission to the Ph.D. programme involves exclusive and full time commitment, without prejudice to the possibility of a specific discipline as established by art. 7 and 12, comma 4, of D.M. 45/2013.

The Ph.D. students, as integral part of the educational project and provided that they have the *nulla osta* of the Teaching Body without this involving an increase in scholarship, may carry out tutoring activities for undergraduate students, as well as supplementary didactic activities, in any case not exceeding a maximum of forty hours per academic year. After the third year of Ph.D. the limit is revoked. Medical field Ph.D. students may participate in clinical activities.

The provisions of legislative decree 29 March 2012 n.68 are extended to Ph.D. students, within the modalities herein established.

Female Ph.D. students benefit from the maternity provisions of the Ministero del Lavoro e Previdenza Sociale decree 12 July 2007, published in the Gazzetta Ufficiale della Repubblica Italiana n. 247 on 23 October 2007.

**All Ph.D. students are obliged to carry out a period of study and research in a company, indicated for each scholarship in Annex A to this call for applications, for a minimum of 6 months and a maximum of 12 months, under penalty of revocation of the scholarship.**

Ph.D. students whose research projects include a period abroad must necessarily carry out this period abroad during the first two years of the course.

**Pursuant to the D.M. n. 1061 of 10.08.2021, the candidate, from the moment of the submission of the application form, is aware of the need to carry out, in case of assignment of the PhD scholarship, the foreseen periods of research in the company and any periods abroad, and that failure to carry out the research period in the company will result in the revocation of the scholarship.**

**Ph.D. student at the moment of enrolment must send:**

**Declaration to commit themselves to carry out the research periods (minimum 6 months, maximum 12 months in compliance with the provisions for each project in Annex A) in the company and abroad, and to return the gross amount of the scholarship for the reference year in case of:**

- the mandatory internship at the private enterprise/company is not carried out;
- the plan and the learning outcome of the project are modified without prior ministerial authorization;
- negative assessment by the Ph.D. Academic Board and subsequent non-admission to the following year of the doctoral program;
- renunciation to the Ph.D course;
- failure to complete the course and receive the relative degree.

Failure to benefit from the scholarship, which also occurred during the year, does not imply exemption from the payment of tuition and attendance fees for the entire year.

The enjoyment of the scholarship for attending the doctorate is compatible with other income, also received continuously in the calendar year in which the scholarship is received, as long as they do not exceed the maximum limit established. If the income limit is exceeded, the scholarship is considered revoked for the entire year. The PhD student is required to declare the income received annually and to report any exceeding of the prescribed limit.

The Ph.D Committee can authorize the PhD student to pursue paid employment activities.

**For all that which is not explicitly set out in the present call for applications refer to art. 12 of the Regulations concerning PhD programmes of the University of Catanzaro.**

The tuition fees and attendance at the PhD courses are determined for a.y. 2021/22, in the amount of € 1.124,45 to be paid in three installments according to the following table, and the Tax for the right to study determined by the Regione Calabria:

Category	Income	Annual amount university tax	I installment	II installment	III installment	Stamp duty paid virtual system	Tax for the right to study PhD programme
PhD student with grant	N.A.	€ 1.124,45	€ 360,00 at the time of enrolment	382,23 by 28.02.2022	382,22 by 30.06.2022	€ 16,00 at the time of enrolment	To be paid in the amount established by the DGR n. 286 of 13.07.2018

PhD students who are winners of doctoral grant who renounce the use of the scholarship are required to pay the annual university fee for the entire academic year, the regional tax for the right to study and stamp duties. Tuition and attendance fees for PhD courses for subsequent academic years are determined according to the aforementioned statement, unless otherwise determined at the time of approval of the University student contribution regulations.

Successful candidates enrolled in a non-medical specialisation school, first or second level degree programme or Masters, are required to suspend attendance of such courses from the start of the programme and for the entirety of its duration. Combined attendance of the Ph.D. programme and a medical specialisation school is permitted, with consequent reduction to a minimum of two years for the Ph.D. programme itself and in accordance with art. 19, L 240/2010 and D.M. 45/2013.

Loss of Ph.D. status, by means of an ordinance issued by the Dean following a motivated decision by the Ph.D. Teaching Body may occur in case of:

- a. negative end of year evaluation on the part of the Teaching Body;



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- b. unjustified and prolonged absences;
- c. behavior in contrast with the incompatibility rules

In case of over thirty days of unmotivated absence or of exclusion from the programme, the scholarship will not be disbursed.

Loss of Ph.D. status in case of non-compliance with “Codice di comportamento dei dipendenti pubblici, a norma dell’art. 54 del D Lgs 165/2011 and with “Codice di comportamento dell’Università Magna Græcia, DR n. 370/2016”. The above-mentioned “Codici” are available on the Magna Græcia University website <http://web.unicz.it/it/page/codice-disciplinare-e-codice-di-condotta> .

#### **Art. 11 – Attainment of the title**

The title of Ph.D., abbreviated in Italian with “Dott. Ric.” (dottore di ricerca), is granted by the Dean following the public discussion of a theses which contributes to advancement of the knowledge and methodologies in the chosen field of research.

At the end of the discussion, the thesis is approved or rejected, with a motivated judgement in writing of the judging committee. The committee may unanimously attribute honours (*laude*) to works that make a significant scientific contribution to their field.

#### **Art. 12 – Treatment of personal data**

In accordance with **General Data Protection Regulation** (GDPR) (EU) 2016/679 and D. lgs. n. 196/2003 the University will respect the privacy of the information provided by candidates. All personal data will be used solely for the purposes of the selection process and subsequent relations between the successful candidates and the University.

#### **Art. 13 – Ph.D. application procedure Manager**

In accordance to the provisions of art. 5 law 7 August 1990 n. 241, the person in charge for the procedures established in the present call for applications, with exclusion of the phases selective, is Dott.ssa Eleonora Consoli, Area Affari Generali- Università Magna Græcia di Catanzaro- Campus Universitario- Viale Europa, Loc. Germaneto, Catanzaro- tel. + 39 0961/3696083, e-mail [consoli@unicz.it](mailto:consoli@unicz.it), PEC [affarigenerali@cert.unicz.it](mailto:affarigenerali@cert.unicz.it) ; overseeing the procedure is Sig.ra Viviana Borelli - tel. + 39 0961/3696075, fax +39 0961 3696150, e-mail [affarigenerali1@unicz.it](mailto:affarigenerali1@unicz.it) .

#### **Art. 14 – Norms of reference**

For all that which is not explicitly set out in the present call for applications, legislative dispositions and norms on Ph.D. scholarships, Ministerial Decree 1061/2021 apply.

#### **Art. 15 – Publicity**

The present call for applications, both in Italian and English, will be published on the website of the *Magna Græcia* University of Catanzaro at the address <https://web.unicz.it/it/category/bandi-ateneo>, <http://web.unicz.it/it/category/dottorati-di-ricerca> on the European website Euraxess and on the website of the MIUR.

**In case of litigation, the text of reference will be exclusively the original text in Italian.**

**ANNEX A – DETAILS OF A.Y. 2021/22 PH.D. PON  
ADDITIONAL SCHOLARSHIPS**

<b>BIOMARKERS OF CHRONIC AND COMPLEX DEASESES</b>	
<p><b>Disciplinary/Scientific Sectors</b></p> <p><b>ACADEMIC FIELDS</b></p>	<p><i>MED/09– INTERNAL MEDICINE</i>  <i>MED/26-NEUROLOGY</i>  <i>MED/11-CARDIOVASCULAR SYSTEM DISEASES</i>  <i>MED/13-ENDOCRINOLOGY</i>  <i>ING-INF/05-DATA ELABORATION SYSTEMS</i>  <i>MED/23-CARDIAC SURGERY</i>  <i>ING-IND/34 - INDUSTRIAL BIOENGINEERING</i>  <i>MED/05 - CLINICAL PATHOLOGY</i>  <i>MED / 10 - DISEASES OF THE RESPIRATORY SYSTEM</i>  <i>MED / 12 – GASTROENTEROLOGY</i>  <i>MED / 18 - GENERAL SURGERY</i>  <i>MED / 22 - VASCULAR SURGERY</i>  <i>MED / 27 - NEUROSURGERY</i>  <i>MED / 30 - VISUAL SYSTEM DISEASES</i>  <i>MED/33 - LOCOMOTOR SYSTEM DISEASES</i>  <i>MED / 36 - DIAGNOSTICS FOR IMAGES AND RADIOTHERAPY</i>  <i>MED / 37 - NEURORADIOLOGY</i>  <i>MED / 39 - CHILD NEUROPSYCHIATRY</i>  <i>MED / 41 –ANESTHESIOLOGY</i>  <i>MED / 43 - FORENSICS</i>  <i>MED / 46 - HEALTHCARE PROFESSIONS AND APPLIED MEDICAL TECHNOLOGIES SCIENCES</i>  <i>MED / 48 - NURSING AND TECHNICAL NEURO-PSYCHIATRIC AND REHABILITATION SCIENCES</i>  <i>MED/49-APPLIED DIETETICAL TECHNOLOGIES</i>  <i>MED / 50 - APPLIED MEDICAL TECHNOLOGIES</i>  <i>BIO / 11-MOLECULAR BIOLOGY</i>  <i>VET/07 – PHARMACOLOGY AND VETERINARY TOXICOLOGY</i></p>
<p><b>Educational Objectives</b></p>	<p>Chronic and complex diseases are pathologies with a multi-factorial etiological origin and constitute the most common human pathologies in the world (Global Status Report on NCD, WHO 2010, www.who.org), representing on their own about 80% of the load of disease of European national health systems. are some of the priorities of the World Health Organization (2008-2013 Action Plan for the Global Strategy for the Prevention and Control of Non-infectious Diseases). Chronic and complex diseases as a priority target for the global health economy, the WHO has indeed stated that: a) "their treatment does not exist or existing therapies are insufficiently effective" and b) "these are diseases where basic and clinical research together they are necessary to establish new biomarkers ". Therefore the PhD course will be aimed at training research doctoral figures who (a) have a complete understanding of the cellular and molecular mechanisms of chronic and complex diseases, in order to identify new biomarkers and which (b) are able to use the most modern technologies and investigation tools for solving complex scientific problems in this area. The skills acquired will be multidisciplinary in order to train highly qualified personnel for research in the university and private sectors. Following the curricula for which there are additional scholarships:</p>



	<p>Curriculum “<i>Analysis of imaging data, neurophysiological biosignals and molecular profiling for the identification of biomarkers applied to neurosciences</i>”, main objectives: Identification of new imaging biomarkers for the diagnosis of neurological diseases.</p> <p>Curriculum “<i>New biomedical technologies for the identification of markers of metabolic and nutritional diseases</i>”, main objectives: Identification and validation of markers for response to interventions on hepatic steatosis or complicated obesity; New biomedical technologies for the identification of diagnostic markers of insulin resistance and metabolic syndrome.</p> <p>Curriculum “<i>Computer engineering methods and techniques for efficient data modeling, management and analysis</i>”, main objectives: Big Data in bioinformatics and medical informatics; Data mining / deep learning analysis of omics and clinical data; Analysis and alignment of biological networks.</p>
<b>Programme Duration:</b>	3 years
<b>Coordinator</b>	Prof. Daniele Torella
<b>E-mail Coordinator</b>	<a href="mailto:dtorella@unicz.it">dtorella@unicz.it</a>
<b>Degree classes required for admission:</b>	LM-6 Biology LM-8 Industrial Biotechnologies LM-9 Medical, veterinary and pharmaceutical biotechnologies LM-13 Pharmaceutics and industrial pharmaceutics LM-17 Physics LM-18 Informatics LM-21 Biomedical engineering LM-25 Automation engineering LM-26 Security engineering LM-27 Telecommunications engineering LM-29 Electronics LM-31 Engineering Management LM-32 Computer Science LM-33 Mechanics LM-40 Mathematics LM-41 Medicine LM-44 Mathematical/physical modelling for engineering LM-51 Psychology LM-54 Chemical Sciences LM- 61 Human Nutrition Sciences LM-82 Statistical sciences LM-91 Techniques and methods for the information society LM/SNT1 Nursing and Midwifery Sciences LM/SNT2 Rehabilitation and health professions sciences LM/SNT3 Health sector technologies professions sciences LM/SNT4 Prevention and health professions sciences
<b>THEME GREEN</b>  <b>n. 3 scholarships</b>	<p><b>n. 1 Scholarship</b> <span style="float: right;"><b>CODE PON 01</b></span></p> <p><b>Research Topic</b>            Development and testing of nutraceuticals and / or functional foods, to treat human diseases using environmentally sustainable technologies and methodologies.</p>

**Curriculum of the Ph. D. Programme**

New biomedical technologies for the identification of markers of metabolic and nutritional diseases

**Research period in company**

6 months

**Company's name**

CGF Food srl MIGLIARESE CONSERVE ALIMENTARI

Loc. Rinelli snc - 88068 Soverato (CZ)

096721294

Leg rapp Francesco Migliarese

**Research period abroad**

Eventual, maximum 6 months

**n. 1 Scholarship**

**CODE PON 02**

**Research Topic**

Assessing the enhancing mechanisms for bioimaging in order to minimize the use of gadolinium in diagnostic imaging and to monitor the environment with geographic and epidemiological systems for the well-being of the environment.

**Curriculum of the Ph. D. Programme**

Computer engineering methods and techniques for efficient data modeling, management and analysis

**Research period in company**

6 months

**Company's name**

Eway-solutions s.r.l.

Legale Rappresentante Ivana Pellegrino. ipellegrino@eway-solutions.it

e way Enterprise Business Solutions S.R.L. Partita iva: 02453300788, Cosenza

**Research period abroad**

10 months

Massachussetts General Hospital, Boston, MA, USA.

**n. 1 Scholarship**

**CODE PON 03**

**Research Topic**

Development of Organoids derived from iPS cells as an innovative echo-sustainable alternative to animal testing for neurodegenerative disease model systems and drug screening.

**Curriculum of the Ph. D. Programme**

Analysis of imaging data, neurophysiological biosignals and molecular profiling for the identification of biomarkers applied to neurosciences

	<p><b>Research period in company</b> 6 months</p> <p><b>Company's name</b> Tecnologica SrL, Via E. Fermi snc, 88900 Crotone</p> <p><b>Research period abroad</b> Eventual, maximum 6 months</p>
<p><b>THEME</b> <b>INNOVATION</b>  n. 3 scholarships</p>	<p><b>n. 1 Scholarship</b> <span style="float: right;"><b>CODE PON 04</b></span></p> <p><b>Research Topic</b> Creation and testing of an integrated software pipeline for the pre-processing and analysis of biosignals of interest in the neurology research field</p> <p><b>Curriculum of the Ph. D. Programme</b> Analysis of imaging data, neurophysiological biosignals and molecular profiling for the identification of biomarkers applied to neurosciences</p> <p><b>Research period in company</b> 6 months</p> <p><b>Company's name</b> BIOTECNOMED S.C. a R.L.; P. Iva 03152670794; Viale Europa, cda Mula Pardizzi, loc. Germaneto – 88100 Catanzaro, Tel. +39 0961 369 4280 – Fax. + 39 0961 3694147, e-mail: info@biotecnomed.it</p> <p><b>Research period abroad</b> Eventual, 6 months</p>
	<p><b>n. 1 Scholarship</b> <span style="float: right;"><b>CODE PON 05</b></span></p> <p><b>Research Topic</b> Creation of a software pipeline for the analysis of texts in medicine, based on new methods and algorithms of Sentiment Analysis (SA) and Network Analysis (NA).</p> <p><b>Curriculum of the Ph. D. Programme</b> Computer engineering methods and techniques for efficient data modeling, management and analysis</p> <p><b>Research period in company</b> 6 months</p> <p><b>Company's name</b> DTOK LAB SRL Iscritta Reg. imprese di Cosenza, P.IVA 03317620783 N. REA: CS - 226805 info@dtoklab.com Piazza Vermicelli c/o Technest, 87036 Rende (CS) Italy</p>

	<p>+39 0984 494278</p> <p><b>Research period abroad</b> Eventual, 6 months</p> <hr/> <p><b>n. 1 Scholarship</b> <span style="float: right;"><b>CODE PON 06</b></span></p> <p><b><u>Research Topic</u></b> Identification of new non-invasive biomarkers for Epilepsy in vivo Neuro-Imaging</p> <p><b>Curriculum of the Ph. D. Programme</b> Analysis of imaging data, neurophysiological biosignals and molecular profiling for the identification of biomarkers applied to neurosciences</p> <p><b>Research period in company</b> 6 months</p> <p><b>Company's name</b> BIOTECNOMED S.C. a R.L.; P. iva 03152670794; Viale Europa, cda Mula Pardizzi, loc. Germaneto – 88100 Catanzaro, Tel. +39 0961 369 4280 – Fax. + 39 0961 3694147, e-mail: info@biotecnomed.it</p> <p><b>Research period abroad</b> Eventual, maximum 6 months</p>
<b>Details research project</b>	<p>The research project must be inherent to the research themes established from article 2, paragraph 1 letter a) and lett. b) of D.M. 1061/2021, as specified in article 1 of the notice, and must be inherent to the Research Topic and to the issues concerning the objectives course training courses, described above, with reference to the chosen curriculum.</p> <p>The research project, which can be presented in English or in Italian, must be written in a maximum of 4 folders (30 lines of 90 characters each) including any diagrams or graphs, using only the facsimile available on website <a href="https://web.unicz.it/it/category/bandi-ateneo">https://web.unicz.it/it/category/bandi-ateneo</a>.</p>
<b>Qualifications and research project evaluation results publication date</b>	By <b>27 October 2021</b> on website <a href="https://web.unicz.it/it/category/bandi-ateneo">https://web.unicz.it/it/category/bandi-ateneo</a>
<b>Interviews</b>	<p><b>28 October 2021, 11:30 a.m. (Italian time)</b></p> <p>The interview will take place in telematic mode on the Meet Gmail platform in the manner established in art. 6 of the notice.</p> <p>Access link to the virtual classroom <a href="https://meet.google.com/oub-divn-fuy">meet.google.com/oub-divn-fuy</a></p>
<b>Foreign Language</b>	<b>English</b>

## MOLECULAR AND TRANSLATIONAL ONCOLOGY AND INNOVATIVE MEDICAL-SURGICAL TECHNOLOGIES

<b>Disciplinary/Scientific Sectors</b>  <b>ACADEMIC FIELDS</b>	<i>BIO / 16-HUMAN ANATOMY</i> <i>BIO / 12 - CLINICAL BIOCHEMISTRY AND CLINICAL MOLECULAR BIOLOGY</i> <i>MED / 50 - APPLIED MEDICAL TECHNOLOGIES</i> <i>MED / 18 - GENERAL SURGERY</i> <i>FIS / 07- APPLIED PHYSICS (ENVIRONMENT AND HERITAGE, BIOLOGY AND MEDICINE)</i> <i>CHIM / 01- ANALYTICAL CHEMISTRY</i> <i>CHIM/01 - CHEMISTRY BIO / 10-BIOCHEMISTRY</i> <i>BIO / 11-MOLECULAR BIOLOGY</i> <i>BIO / 13-APPLIED BIOLOGY</i> <i>MED / 03-MEDICAL GENETICS</i> <i>MED / 04-GENERAL PATHOLOGY</i> <i>MED / 06-MEDICAL ONCOLOGY</i> <i>MED / 19-PLASTIC SURGERY</i> <i>MED / 24-UROLOGY</i> <i>MED / 36-DIAGNOSTICS FOR IMAGES AND RADIOTHERAPY</i> <i>MED / 40-GYNECOLOGY AND OBSTETRICS</i> <i>MED / 45-GENERAL, CLINICAL AND PEDIATRIC NURSING SCIENCES</i> <i>ING-INF / 04-AUTOMATICS</i> <i>ING-INF / 06- BIOENGINEERING, ELECTRONICS AND INFORMATION TECHNOLOGY</i> <i>FIS / 01-EXPERIMENTAL PHYSICS</i>
<b>Educational Objectives</b>	<p>The aim of the Ph.D. is to train professionals with interdisciplinary skills in oncological research, autonomy in planning, execution and interpretation of experiments, formulation of research projects and writing of scientific articles.</p> <p>Following the curricula for which there are additional scholarships:</p> <p><i>Molecular Oncology</i> – Study of the molecular alterations involved in the onset, progression and dispersal of family and sporadic tumours, through experimental models in vitro, ex-vivo and in vivo. Use of “highthroughput” approaches for the definition of tumour genomic and epigenomic panorama, proteomics and metabolics.</p> <p><i>Biomedical, Systems and applied nanotechnologies Engineering</i> – Methods and technologies for the modelling, simulation, and control of biological systems, the elaboration of images aimed at the planning of therapeutic interventions, the planning of nanotechnologies based innovative biomedical devices.</p> <p><i>Medical translational oncology</i> – Innovative approaches for the development of high-selectivity diagnostic, therapeutic and/or pre-emptive strategies in medical oncology.</p>
<b>Programme Duration:</b>	3 years
<b>Coordinator</b>	Prof. Giovanni Cuda
<b>E-mail Coordinator</b>	<a href="mailto:cuda@unicz.it">cuda@unicz.it</a>
<b>Degree classes required for admission:</b>	LM-6 Biology LM-9 Medical, veterinary and pharmaceutical biotechnologies LM-13 Pharmaceutics and industrial pharmaceutics LM-17 Physics LM-18 Informatics LM-21 Biomedical engineering LM-22 Chemical engineering

	<p>LM-25 Automation engineering          LM-26 Security engineering          LM-27 Telecommunications engineering          LM-29 Electronics          LM-31 Engineering Management          LM-32 Informatics Engineering          LM-33 Mechanics          LM-35 Environment and territory engineering          LM-40 Mathematics          LM-41 Medicine          LM-44 Mathematical/physical modelling for engineering          LM-53 Material science and engineering          LM-54 Chemical sciences          LM-82 Statistical sciences</p>
<p><b>THEME</b> <b>GREEN</b>  <b>n. 3 scholarships</b></p>	<p style="text-align: right;"><b>CODE PON 07</b></p> <p><b>n. 1 Scholarship</b></p> <p><b>Research Topic</b>          Development of analytical approaches based on omics technologies for functional and structural analysis of the impact of nanomaterials conceived for green innovation in the electrical field on the genome and human health.</p> <p><b>Curriculum of the Ph. D. Programme</b>          Molecular Oncology</p> <p><b>Abstract</b>          The aim of this PhD project is to develop innovative and industrializable methodologies and protocols to evaluate the cytotoxic, genotoxic and epigenetic effects, as well as the carcinogenic potential, of nanoparticles and composite nanomaterials. To this end, we will take advantage of recent advances in next-generation nucleic acid sequencing (NGS), which allow for quantitative and qualitative evaluation at the genomic scale, and in computational biology, including single-cell technologies to create in a unique solution accurate expression and mutational profiles of each cell populations within a biological sample, which would otherwise be masked in mass profiling.</p> <p><b>Tutor</b>          Dott.ssa Francesca Rizzo</p> <p><b>Research period in company</b>          6 months</p> <p><b>Company's name</b>          Genomix4Life Srl          Sede Operativa: Via S. Allende, 43/L - 84081 Baronissi (SA) – Italy          Sede Legale: c/o Campus di Medicina e Chirurgia, Via S. Allende, 1 - 84081 Baronissi (SA) – Italy Cod. Fiscale/P. IVA: 05175300655 - R.E.A.: SA-425685          Rappresentante legale: Maria Ravo, maria.ravo@genomix4life.com</p> <p><b>Research period abroad</b></p>

Eventual, maximum 6 months

**n. 1 Scholarship**

**CODE PON 08**

**Research Topic**

Development of cardiac organoids through solvent-free 3D bioprinting for the study of the cellular and molecular mechanisms of cardiac regeneration and of new cardioreparative pharmacological approaches.

**Curriculum of the Ph. D. Programme**

Biomedical, Systems and applied nanotechnologies Engineering

**Abstract**

The design and generation of human organoids, 3D culture systems derived from induced pluripotent stem cells or adult multipotent stem cells, has made it possible to recreate the architecture and physiology of human organs in detail. This project aims to generate and produce human cardiac organoids using innovative solvent-free 3D printing techniques to: (i) improve our knowledge of the molecular and cellular basis of human heart regeneration and (ii) identify new cardio-reparative pharmacological approaches to be translated on an industrial scale.

**Tutor**

Dott.ssa Eleonora Cianflone

**Research period in company**

6 months

**Company's name**

Macrofarm srl,  
Via P Bucci snc, Rende, CS, cap 87036; PIVA 03100950785; CODE univoco M5UXCR1; Legale Rappresentante: Fabio Amone.

**Research period abroad**

To be defined according to the progress of the project (3 months)

**n. 1 Scholarship**

**CODE PON 09**

**Research Topic**

Development of sustainable strategies and alternatives to animal models for high throughput drug screening: the model of human induced pluripotent stem cells (iPSCs).

**Curriculum of the Ph. D. Programme**

Biomedical, Systems and applied nanotechnologies Engineering

**Abstract**

The project proposal aims to use sustainable multi-well platforms modified with the integration of microfluidic systems for drug screening. Such systems ensure optimal perfusion conditions that can compensate for evaporation of the medium and can maintain a cell culture for an extended period to test the long-term effects of drugs. iPSCs

	<p>cells derived from subjects with specific hereditary-familial pathologies will be seeded on these platforms as such or after differentiation in the cell type of interest. The microfluidics system will ensure the maintenance of optimal conditions, making them ideal for the screening of therapeutically active molecules specific for the pathology and gene defect of which the cells themselves are carriers and reducing significantly the need for in vivo animal-based studies.</p> <p><b>Tutor</b> Prof. Giovanni Cuda</p> <p><b>Research period in company</b> Minimum 6 maximum 12 months</p> <p><b>Company's name</b> Biotechnomed S.c.a.r.l. Sede legale: Campus Universitario di Germaneto Viale Europa – 88100 Catanzaro (CZ) – Italy - P. IVA 03152670794 Tel. +39 0961 369 4280 – Fax. + 39 0961 3694147 - e-mail: info@biotechnomed.it</p> <p><b>Research period abroad</b> Eventual, maximum 6 months</p>
<p><b>THEME</b></p> <p><b>INNOVATION</b></p> <p><b>n. 2 Scholarships</b></p>	<p><b>n. 1 Scholarship</b> <span style="float: right;"><b>CODE PON 10</b></span></p> <p><b>Research Topic</b> Development of an immuno-genomic platform for precision medicine in oncology.</p> <p><b>Curriculum of the Ph. D. Programme</b> Medical translational oncology</p> <p><b>Abstract</b> This project proposes the development of an immunogenomic platform for the identification of patient-specific tumor neoantigens and the design of T cells engineered for the neoantigen-specific T cell receptor (TCR). The platform will be based on a pipeline that includes: 1) identification of tumor neoantigens through the comparison of whole exome (WES) and RNA (RNAseq) sequencing data between normal and tumor tissues; 2) experimental validation of tumor neoantigens;; 3) identification of the receptor structure of neoantigen-specific T cells, by means of single-cell RNA sequencing; 4) production of neoantigen-specific T-CARs.</p> <p><b>Tutor</b> Prof. Camillo Palmieri</p> <p><b>Research period in company</b> Minimum 6 maximum 12 months</p> <p><b>Company's name</b> ROMOLO HOSPITAL S.R.L Sede Legale: Via Panella 6 – 88900 Crotona, KR Legale rappresentante: Carmela Sanguedolce</p>



Partita IVA: 02056980796 C.F. : 02056980796  
Tel. +39 0962 80322 - Fax:+39 0962 80024 [info@romolohospital.com](mailto:info@romolohospital.com)

**Research period abroad**

Eventual, maximum 6 months

**n. 1 Scholarship**

**CODE PON 11**

**Research Topic**

Analysis of the interactions between mesenchymal stem cells derived from periodontal ligament and an innovative prosthetic material.

**Curriculum of the Ph. D. Programme**

Biomedical, Systems and applied nanotechnologies Engineering

**Abstract**

Current research in the field of reconstructive surgery aims at the creation of biocompatible devices that are as valid as possible for the artificial replacement of missing body parts because of oncological disease or trauma. This project has as main purpose to verify the compatibility of mesenchymal stem cells derived from the periodontal ligament (PDLSCs) and a new surface for prosthesis; the nanotopography of the system will play a key role in the integration process. To evaluate this, scanning electron microscope (SEM) will be applied. The latter will allow us to carry out both a quantitative analysis of the roughness, ie the measurement of the distance between the peaks and the dimensions of the micro-roughness, and a detailed evaluation of the morphology of the cells that will adhere to the surface of the prosthesis. A careful functional analysis of PDLSCs will be performed through the application of molecular biology and imaging techniques.

**Tutor**

Prof.ssa Anna Di Vito

**Research period in company**

6 months

**Company's name**

Leader Medica SRL

Via dell'Industria, 35030 Zona Industriale Albettoniera (PD) – Italy

P.IVA 04089340287, Tel. +39 049 99 13 364, e-mail: [info@leadermedica.com](mailto:info@leadermedica.com)

Biotecnomed S.c.a.r.l.

Sede legale: Campus Universitario di Germaneto

Viale Europa – 88100 Catanzaro (CZ) - Italy

P. IVA 03152670794 - Tel. +39 0961 369 4280 – Fax. + 39 0961 3694147

e-mail: [info@biotecnomed.it](mailto:info@biotecnomed.it)

**Research period abroad**

Eventual, maximum 6 months

King's College London; Centre for Craniofacial & Regenerative Biology; London (UK).

<b>Details research project</b>	<p>The research project must be inherent to the research themes established from article 2, paragraph 1 letter a) and lett. b) of D.M. 1061/2021, as specified in article 1 of the notice, and must be inherent to the Research Topic and to the issues concerning the objectives course training courses, described above, with reference to the chosen curriculum.</p> <p>The research project, which can be presented in English or in Italian, must be written in a maximum of 4 folders (30 lines of 90 characters each) including any diagrams or graphs, using only the facsimile available on website <a href="https://web.unicz.it/it/category/bandi-ateneo">https://web.unicz.it/it/category/bandi-ateneo</a> .</p>
<b>Qualifications and research project evaluation results publication date</b>	<p>By <b>27.10.2021</b> on website <a href="https://web.unicz.it/it/category/bandi-ateneo">https://web.unicz.it/it/category/bandi-ateneo</a></p>
<b>Interviews</b>	<p><b>28.10.2021, 09:30 a.m. (Italian time)</b></p> <p>The interview will take place in telematic mode on the Meet Gmail platform in the manner established in art. 6 of the notice.</p> <p>Access link to the virtual classroom <a href="https://meet.google.com/nfk-mqrk-tpv">https://meet.google.com/nfk-mqrk-tpv</a></p>
<b>Foreign Language</b>	<b>English</b>

**EUROPEAN LEGAL AND ECONOMIC SYSTEMS**

<b>Disciplinary/Scientific Sectors</b>  <b>ACADEMIC FIELDS</b>	<p><i>IUS / 05 – ECONOMIC LAW</i></p> <p><i>SECS-P / 10 - BUSINESS ORGANIZATION</i></p> <p><i>SECS-P / 03 - SCIENCE OF FINANCE</i></p> <p><i>IUS / 13 - INTERNATIONAL POLICY</i></p> <p><i>SPS / 07 - GENERAL SOCIOLOGY</i></p> <p><i>IUS / 17 - CRIMINAL LAW</i></p> <p><i>SPS / 09 -SOCIOLOGY OF ECONOMIC PROCESSES AND WORK</i></p> <p><i>IUS / 09 - PUBLIC LAW INSTITUTION</i></p> <p><i>IUS / 15 - CIVIL PROCEDURE LAW</i></p> <p><i>IUS / 01-PRIVATE LAW</i></p> <p><i>IUS / 07-LABOUR LAW</i></p> <p><i>IUS / 08 — CONSTITUTIONAL LAW</i></p> <p><i>IUS / 10-ADMINISTRATIVE LAW</i></p> <p><i>IUS / 10 – CANON LAW AND ECCLESIASTICAL LAW</i></p> <p><i>IUS/16-CRIMINAL PROCEDURE IUS/18- ROMAN LAW AND ANCIENT LAWS</i></p> <p><i>IUS / 19-HISTORY OF MEDIEVAL AND MODERN LAW</i></p> <p><i>IUS / 20-PHILOSOPHY OF LAW</i></p> <p><i>SPS/12-SOCIOLOGY OF LAW, DEVIANCE AND SOCIAL CHANGE</i></p> <p><i>SECS-P / 02-ECONOMIC POLICY</i></p> <p><i>SECS-P/07-BUSINESS ADMINISTRATION AND MANAGEMENT</i></p> <p><i>SECS-P / 11-ECONOMY OF FINANCIAL INTERMEDIARIES</i></p> <p><i>SECS-P / 12-ECONOMIC HISTORY</i></p>
<b>Educational Objectives</b>	<p>The programme provides multidisciplinary skills and knowledge in the fields of the theory of law, of laws (civil, business and labor law), in economics, in the European context, with reference to public and private companies, institutions and markets, and in sociology, concerning the issues of migration and the right to health. The aim is to put into practice an articulated on juridical supranationality and in particular on the European economic constitution.</p> <p>Following the curricula for which there are additional scholarships:</p> <p><i>The Theory and history of law: sociality and public sphere supranational</i> focuses on issues related to the revival of a new supranational common law, with special attention to the process of globalization, to European integration and their constitutionalization</p> <p><i>The Companies, institutions and markets in the European Union</i> provides specialised in depth analysis (managerial, economic and legal), in terms of rules, patterns of functioning and financing for businesses, real and financial markets, institutions and economic policies in EU.</p>
<b>Programme Duration:</b>	3 years
<b>Coordinator</b>	Prof. Massimo La Torre
<b>E-mail Coordinator</b>	<a href="mailto:mlatorre@unicz.it">mlatorre@unicz.it</a>
<b>Degree classes required for admission:</b>	<p>LMG/01 Law</p> <p>LM-52 International Relations</p> <p>LM-56 Economics</p> <p>LM-63 Public administration sciences</p> <p>LM-76 Economics for environment and culture</p> <p>LM-77 Business and management studies</p> <p>LM-78 Philosophy</p> <p>LM-88 Sociology and social research</p>

	LM-90 European Sciences
<b>THEME</b>	<b>n. 1 Scholarship</b> <span style="float: right;"><b>CODE PON 12</b></span>
<b>GREEN</b>	<b>Research Topic</b> Environmental protection through a new planning of urban spaces: theoretical and applicative profiles
<b>n. 2 Scholarships</b>	<b>Curriculum of the Ph. D. Programme</b> The Theory and history of law: sociality and public sphere supranational
	<b>Abstract</b> The C.I.P. s.r.l. (Consulting Intermediations & Participations S.R.L.) carries out activities of general consultancy to companies in the public and private works sector, as well as activities of project management and procurement management. The company is strongly oriented towards the realization of projects oriented towards conservation of the ecosystem, biodiversity, the reduction of the impacts of climate change and the promotion of sustainable development. In fact, it offers structured advice on renewable energy, thanks to the experience gained in the field of consultancy on design, construction and management of wind farms, gas turbine plants, cogeneration plants, biomass plants and a thorough knowledge of the energy sector and legislation on production of energy from renewable sources. Furthermore, the company supports companies in all issues related to compliance with the environmental legislation, which has become increasingly relevant and complex on a national level e community. The issue of sustainability is certainly not new, but today it represents a goal primary transversal to the various production sectors. Greener construction is possible and the margins for improvement are high. Just think that the construction industry is currently responsible for extracting 50% of the raw materials of across Europe, 36% of emissions, 40% of energy consumption and 21% of water consumption. Data that make clear the responsibility of the construction sector in the fight against climate change and the achievement of environmental protection objectives. The first step is undoubtedly to change the approach to designing the buildings and infrastructure. Careful planning allows you to guide most of the other choices you make following, given that it is in the design phase that the materials and methodologies are chosen construction, systems, technologies to be used and workers to be involved. The company's goal, to be developed with the PhD project, is that of adopting a green model, studying, choosing natural or low-grade materials environmental impact, simulating the behavior and performance of the building, identifying which construction techniques reduce construction times, providing for plants efficient and that use renewable energy.
	<b>Tutor</b> Prof. Massimo La Torre
	<b>Research period in company</b> 12 months
	<b>Company's name</b> CONSULENZE INTERMEDIAZIONI & PARTECIPAZIONI S.R.L. IN SIGLA C.I.P. SRL Sede legale: CROTONE (KR) VIA TITO MINNITI 61 CAP 88900

p. iva: 03287870798  
 amministratore unico: LAGANI FRANCESCO MARIA (rappresentante dell'impresa)  
 Sito web: www.cip.srl  
 Mail: info@cip.srl Pec: cip-srl@pec.it

**Research period abroad**

NO

**n. 1 Scholarship**

**CODE PON 13**

**Research Topic**

Innovation, technologies and organizational design for the management of the energy crisis

**Curriculum of the Ph. D. Programme**

The Companies, institutions and markets in the European Union

**Abstract**

The project in “Innovation, Technologies and Organizational Design for the Management of Energy Crisis” (IT&DO) offers a multidisciplinary approach - thanks to competences present in UMG - to the study and deepening of the evidences that emerged in moments of crisis of organizational systems through the tool of innovation e of technological development. The goal therefore is to train the participants in the design and review of the organizational models adopted by the companies in front of the emerging crises, in particular the energy one, thanks to the support offered by the new ones technologies and process innovation. The training program focuses on the development of skills, abilities and methodologies, suitable for preparing young people fellows to become scholars or professionals in the corporate governance of the change, especially climate change, and the energy crisis. During their prime year, fellows complete an intensive program of compulsory and elective courses, held by UMG teachers and researchers and coming from the network represented by partner universities. The course will be held in Italian or English, in Catanzaro, over an arch time period of three years, divided into semesters, starting from the month of October of each year. The course is completed with the drafting and final discussion of a thesis, which allows the University of Catanzaro to issue the relative qualification. They are an integral part of the course both the 10-month training period carried out at the partner company, and the training period abroad, of 6 months, to be developed at the foreign branch of the partner company in Germany. The opportunity offered by the partner company to dedicate themselves to the training of the trainee for a long period of time, as well as the possibility to carry out the internship period at their foreign headquarters will allow the scholarship holder to realize a concrete growth opportunity and professionalization aimed at making the knowledge and skills learned in organizational advantage with territorial impact. All this will result in a rapprochement between world of university education and local production system that will allow a progressive increase of the total value released to the territorial system and one more aware management connected to the problems of the energy crisis.

**Tutor**

Prof. Rocco Reina

**Research period in company**

	<p>10 months</p> <p><b>Company's name</b> DNA LAB SRL VIA LOMBARDI 6B 88100 CATANZARO, P IVA 03363190798, GIUSEPPE PISANO, amministrazione@pec.dnlab.it</p> <p><b>Research period abroad</b> 6 months - DNA LAB SRL – Berlin - Germany</p>
<p><b>THEME</b> <b>INNOVATION</b></p> <p><b>n. 5 Scholarships</b></p>	<p><b>n. 1 Scholarship</b> <span style="float: right;"><b>CODE PON 14</b></span></p> <p><b>Research Topic</b> The economic and social impact of innovation in the cultural and tourism field</p> <p><b>Curriculum of the Ph. D. Programme</b> The Companies, institutions and markets in the European Union</p> <p><b>Abstract</b> The cultural system and its repercussions on internal and external tourism represent one of the most consistent and systematic items in the context of the Italian economy, and in particular of the southern regions. The spread of historic buildings, monuments, works of art and their integration with the landscape and natural resources is the source of a flow considerable amount of exchanges, the distribution of which is more balanced than in the cities of art which still attract mass tourism. The project intends to analyze and elaborate the range of structural innovations, management and technology that can realistically be applied to the system - even in consideration of its varied ownership and legal status between private, non-profit and public at different levels of government - in order to effectively pursue e systematically the increase in the degree of material and cognitive accessibility that the PNRR sets the cornerstone of the first mission. In this context, the project assigns a prominent role to the benefits deriving from the relevant integration between the analog and digital dimensions, still considered and managed in a condition of mutual extraneousness, or with an unjustified indulgence towards effects specials that do not stimulate demand and weigh heavily on costs. The construction of paths and relationships between the different components of the cultural and territorial offer and landscape, through a cross-media strategy that manages to make innovations capable of accentuating and intensifying the dialogue between supply and demand, can register one significant impact on the local economy, thanks to the expansion of trade and the impact on trade and tourism, and above all its impact on the share capital, on the quality of urban and territorial life, on the allocation of resources, on options outlet of local human capital, on social inclusion. The project focuses on the need to analyze, both on a methodological and on the application one, the economic and social impact of technological innovation, and organizational and managerial consequence, applied to the cultural and tourist system, with specific reference to the territory of Calabria and the South, also in the light of complexity and variety of material and intangible cultural heritage, and wealth of the natural and cultural landscape.</p> <p><b>Tutor</b> Prof. Michele Trimarchi</p>

	<p><b>Research period in company</b> 12 months</p> <p><b>Company's name</b> Art Files srls, via Alberico II – 00193 Roma, presidente e legale rappresentante dottor Paolo Pelino, email: p.pelino@studiopelino.it, tel. 06 36002519</p> <p><b>Research period abroad</b> 6 months Universitat Rovira i Virgili, Taragona (Spain) –professor Antonio Paolo Russo</p> <hr/> <p><b>n. 1 Scholarship</b> <span style="float: right;"><b>CODE PON 15</b></span></p> <p><b>Research Topic</b> Pandemic, resilient economy and digitalisation</p> <p><b>Curriculum of the Ph. D. Programme</b> The Theory and history of law: sociality and public sphere supranational</p> <p><b>Abstract</b> The restrictions linked to COVID-19 have put many companies in crisis found unprepared to face the new challenges dictated by the situation of the first months of 2020. Companies that have somehow managed to organize themselves by exploiting the new ones technologies have suffered less and today they face much less aftermath. Hence the awareness that greater digitization is an opportunity to make the company more solid and efficient, translating into an opportunity for growth also economic. Based on these observations, employee training, together with the promotion of research activities on the topics of innovation, digital and technologies enabling are essential for building a more reliable and resilient company. The Cai Service Group S.p.a. it is mainly active in the medical field, carrying out activities prevalent wholesale trade in instruments and equipment for medical use e hospital, and precisely on the occasion of the Covid-19 pandemic she became aware of the need to adapt their production system to new market needs. Hence the need for greater vertical interaction with customers and suppliers e horizontal integration with companies operating in the same supply chain allows for reduce inefficiencies and improve workflows. WMS software for managing the warehouse are primarily responsible for this integration between suppliers and providers services in the control system and it is for this reason that the company has a project of integration of these enabling technologies in its own production system. Therefore, a research activity for digital technological solutions for automation of the production and sales system to encourage forms of distancing social dictated by the containment measures related to the health emergency from Covid-19, through participation in the Intellicare project (funded under the Smart Specialization Strategy (S3), an instrument envisaged by the Europe 2020 Strategy, with funds of ERDF funding of the Community programming 2014-2020), relating to the testing of an innovative software platform for healthcare logistics. The goal for the future, in which the doctoral activity will be integrated, is to achieve both an information system and an innovative logistic flow management model, aimed at optimizing costs and improving the quality of the service at the same time logistics, especially in the procurement phases, in terms of efficiency and effectiveness, mainly thanks to: a) the reduction of stocks to an optimal physiological level;</p>
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b) optimization of the costs of the various phases of logistics services;  
c) the traceability of the items and their treatment along the process.  
Furthermore, particular attention is intended to devote to environmental needs increasing, for example, energy efficiency, thus providing systems for waste recycling or rainwater recovery plants, or simply improving the structure of the building itself with innovative and technical solutions that aim at the use of cutting-edge systems and green materials.

**Tutor**

Prof. Massimo La Torre

**Research period in company**

12 months

**Company's name**

CAI SERVICE GROUP S.P.A.

Sede legale: CROTONE (KR) VIA MERCALLI 4 CAP 88900

p. iva: 01694540798

Legale rappresentante: SPANO' CESARE

Pec: info@pec.caiservice.kr.it

**Research period abroad**

NO

**n. 1 Scholarship**

**CODE PON 16**

**Research Topic**

Digital citizenship and processes of computerized law transformation

**Curriculum of the Ph. D. Programme**

The Theory and history of law: sociality and public sphere supranational

**Abstract**

One of the aspects characterizing the current era is the global diffusion of processes of increasingly advanced and radical digitization, which now affects all areas humans. Even the law does not escape this work of digital transformation, which it has found a strong incentive for development in the current pandemic emergency. The processes of digital transformation involve public law, forcing a rethink continuum of certain institutional structures. Today we talk about digital citizenship rights e rights to participate in the online community. Rights and duties always fit into more in spatial contexts different from the usual ones, and take new forms, which often do not they are captured by the classical juridical categories. Even the citizen's report with power it is at the center of a radical transformation process. Proof of this is in the national context, the adoption of the Digital Administration Code (CAD), that is single text that rules concerning and systematizes the information of the Public Administration in relations with citizens and businesses. The code was introduced with legislative decree n. 82; nevertheless with a subsequent Decree of 2017, n. 217, the same has been modified to promote and make effective digital citizenship rights. But not only the rights and duties of digital citizenship, private law and its forms of negotiation are also swept away by a strong wind of radical change and innovation. Legal transactions that were previously entrusted to



paper they are increasingly being converted into bits and files, prompting a rethinking of many institutions designed for circulation and material cognition. The present research project aims to investigate these phenomena, reconstructing and identifying the most significant changes in order to offer a critical and capable synthesis to systematize their practical reflections. The research will follow two fundamental coordinates: the theoretical/publicistic one, aimed at a reconstruction of the concept of citizenship digital and virtual community; the theoretical/ substantial one, aimed at analyzing the impact of digitization on certain classic categories of law. A phase of the project will allow an evaluation of the impact of digitization in operational terms thanks to the possibility of crossing theoretical reflections with the practical activity carried out at the SEVEN cooperative company, based in Catanzaro, which deals with digital transformation processes of documents and legal acts for account of notaries, jurists and public administrations, and is constantly called to address problematic issues regarding the correct digitization of negotiation documents. It is precisely the operations of digital transformation of the notarial archives that can constitute a precious practical laboratory to better address the problems under investigation and thus avoid scientific ruminations without a certain field experience, the latter is very necessary to seriously grasp the dynamics of digitization.

**Tutor**

Prof. Francesco Siracusano

**Research period in company**

12 months

**Company's name**

Denominazione: SEVEN SOCIETA' COOPERATIVA  
- P.IVA 03743020 - iscrizione al registro REA CZ-209778  
Sede legale: via Milelli 12 - 88100 Catanzaro p. iva: 03287870798  
Presidente Consiglio di amministrazione: Vincenzo Di Girolamo  
Mail: amministrazione@cooperativaseven.it  
Pec: cooperativaseven@pec.it

**Research period abroad**

NO

**n. 1 Scholarship**

**CODE PON 17**

**Research Topic**

Innovative and alternative financial models for the environment and for the sustainable development of territories: theoretical and applicative profiles.

**Curriculum of the Ph. D. Programme**

The Companies, institutions and markets in the European Union

**Abstract**

Green finance - which includes financial models and instruments aimed at favoring and support business projects and activities that minimize the environmental impact and/or conservation of the ecosystem and biodiversity - is taking on particular importance among scholars and operators, also in light of the Paris Agreement (2015) and the Goals

of Sustainable Development provided for in the UN 2030 Agenda. Sustainable finance for the environment is also a central theme in the agendas of EU regulators European. Starting from these considerations, the objective of the Project is to analyze, identify and propose alternative and innovative financial models and instruments (attributable, among others, to microcredit, crowdfunding and green bonds) optimal to encourage the development of start-ups and small and medium-sized enterprises operating in territories of the South and that minimize the environmental impact and / or conservation of the ecosystem and biodiversity. The Project, therefore, develops along the following three lines: 1) the examination of the relationships existing in the literature between green finance and sustainability, in order to map criticalities and characteristics; 2) the comparison of case studies and national good practices end international, with a focus on cases of: equity crowdfunding for energy, the environment and the territory; rural micro-credit; green bond, environmental impact bond; 3) the modeling and application of innovative and alternative financial models to advantage of the sustainable development of the territories of Southern Italy, useful for promoting green recovery and overcoming the effects of the crisis in the context of the pandemic COVID-19. The part of the project dedicated to application aspects will benefit from the period expected at the partner company, which deals with developing technological solutions and public-private innovation partnerships to facilitate the transition process technology of cities and territories, placing individuals and the environment at the center of it process.

**Tutor**

Prof.ssa Annarita Trotta

**Research period in company**

6 months

**Company's name**

SMART CITY INSTRUMENTS, SRL

SEDE LEGALE: CSO MARCO POLO, 55-87036 RENDE (CS) P.IVA: 03469270783

LEGALE RAPPRESENTANTE:

DR. ALFREDO SGUGLIO

Sito web: [www.smartcityinstruments.it](http://www.smartcityinstruments.it)

Mail: [info@smartcitystruments.it](mailto:info@smartcitystruments.it) - Pec:[smartcityinstruments@pec.it](mailto:smartcityinstruments@pec.it)

**Research period abroad**

NO

**n. 1 Scholarship**

**CODE PON 18**

**Research Topic**

The digitization of cultural heritage of religious interest

**Curriculum of the Ph. D. Programme**

The Theory and history of law: sociality and public sphere supranational

**Abstract**

The research aims to analyze, through a law and religion approach, the enhancement of the cultural heritage of religious interest through ICT (Information and Communication Technologies). The basic objective, therefore, is that to highlight the regulatory profiles that contribute to the development of the National Plan of Digitization of Cultural

Heritage in relation to cultural heritage of religious interest. The innovativeness profiles are different: the enhancement of the cultural heritage of religious interest through ICT is an area of activity that is currently not full systematization from a legal point of view. The research aims to analyze the connection between the use of new technologies in the field of asset protection cultural and the analysis of constitutionally relevant issues in terms of promotion of culture (Article 9 of the Constitution), of relations between the State and the Catholic Church or other religious confessions (articles 7 and 8 of the Constitution) and of individual religious freedom (article 19 of the Constitution). All this also in consideration of the cultural value that this heritage holds also for non-believers. They should thus be highlighted, for the first time in the scientific panorama national law, the regulatory conditions and the social repercussions of the systematization of information and data in digital format, regarding the cultural heritage they belong to the Catholic Church and other religious confessions. Starting from the study of confessional systems, from the internal point of view, both as regards the definition of cultural property, both for what concerns the administrative rules in subject, it will be necessary to analyze the methods of interaction and coordination between the digitization of cultural heritage belonging to confessional organizations and the preparation of a national plan for digitization, including how this interaction can take place within the regulatory perimeter of the agreements bilateral between the state and religious confessions, through a comparative analysis with others European legal systems

**Tutor**

Prof. Antonino Mantineo

**Research period in company**

12 months

**Company's name**

Desta s.r.l. – sezione Artium

Uffici e Laboratorio: Via Carfellà, 49, 88040 Settingiano (CZ) – Italy

Cod. Fisc. e P.IVA IT 00879290799

Tel: +39 (0)961 998585 - Fax: +39 (0)961 998685 - Email: info@artium.desta.it

Artium, business division of Desta, operates in the sector of Cultural Heritage and training, with his own team he is responsible for devising and developing projects for recovery of works of art, as well as offering services for culture. An area dedicated to training professional and artistic, a modern laboratory for the conservation and restoration of works wood, paintings on canvas and wood, textile and metal artifacts, professionally guided by experts in the sector, complete the equipment of the business. Knowledge and historical interpretation of these traces are an indispensable premise for this activity. The work develops through the conception and organization of set-ups for art exhibitions and museums, cultural events, the implementation of projects cultural and special projects for the use of museums for people with disabilities through technology, LIS and tactile paths. Research and innovation, in collaboration with research institutions and universities and the ex-novo design of works e furnishings for churches, places of worship and public places complete the areas of intervention of the company division.

**Research period abroad**

6 months - Università di Stettino, Poland

<b>Details research project</b>	<p>The research project must be inherent to the research themes established from article 2, paragraph 1 letter a) and lett. b) of D.M. 1061/2021, as specified in article 1 of the notice, and must be inherent to the Research Topic and to the issues concerning the objectives course training courses, described above, with reference to the chosen curriculum.</p> <p>The research project, which can be presented in English or in Italian, must be written in a maximum of 4 folders (30 lines of 90 characters each) including any diagrams or graphs, using only the facsimile available on website <a href="https://web.unicz.it/it/category/bandi-ateneo">https://web.unicz.it/it/category/bandi-ateneo</a>.</p>
<b>Qualifications and research project evaluation results publication date</b>	By <b>28.10.2021</b> on website <a href="https://web.unicz.it/it/category/bandi-ateneo">https://web.unicz.it/it/category/bandi-ateneo</a>
<b>Interviews</b>	<p><b>03.11.2021, 09:30 a.m. (Italian Time)</b></p> <p>The interview will take place in telematic mode on the Meet Gmail platform in the manner established in art. 6 of the notice.</p> <p>Access link to the virtual classroom <a href="https://meet.google.com/ffb-ashq-xjp">https://meet.google.com/ffb-ashq-xjp</a></p>
<b>Foreign Language</b>	<b>English or Spanish</b>

<b>PSYCHOLOGY</b>	
<b>Disciplinary/Scientific Sectors</b>	<p><i>M-PSI/01 – GENERAL PSYCHOLOGY</i>  <i>M-PSI/02 – PSYCHOBIOLOGY AND PHYSIOLOGICAL PSYCHOLOGY</i>  <i>M-PSI/03 – PSYCHOMETRICS</i>  <i>M-PSI/04 – DEVELOPMENTAL AND EDUCATIONAL PSYCHOLOGY</i>  <i>M-PSI/08 – CLINICAL PSYCHOLOGY</i>  <i>M-PED/01 – THEORIES AND SCIENCE OF EDUCATION AND SOCIAL EDUCATION</i>  <i>M-PED/03 – METHODOLOGIES OF TEACHING AND SPECIAL EDUCATION</i>  <i>BIO / 14 - PHARMACOLOGY MED / 38 - GENERAL AND SPECIALIST PEDIATRICS</i>  <i>MED / 42 –HIGYENE AND PUBLIC HEALTH</i></p>
<b>ACADEMIC FIELDS</b>	
<b>Educational Objectives</b>	<p>The aim of the PhD course is the training of young researchers capable of carrying out research projects in the psychological field, with particular reference to the analysis and understanding of cognitive and behavioral processes and related disorders. In particular, we intend to train scholars who are able to analyze the systemic relationships of the main cognitive and emotional-motivational processes with biological and social processes, monitoring their development throughout the life span. The course aims to provide knowledge and skills useful for the experimentation of integrated intervention protocols, of a biopsychosocial nature, both preventive and clinical, aimed at the prevention and treatment of discomfort and pathologies</p>

	and the consolidation of psycho-physical well-being and quality of life. The training program includes 1500 hours of activity (180 CFU) and is available on the website <a href="http://web.unicz.it/it/category/dottorati-di-ricerca">http://web.unicz.it/it/category/dottorati-di-ricerca</a>
<b>Programme Duration:</b>	3 years
<b>Coordinator</b>	Prof.ssa Francesca Cuzzocrea
<b>E-mail Coordinator</b>	<a href="mailto:fcuzzocrea@unicz.it">fcuzzocrea@unicz.it</a>
<b>Degree classes required for admission:</b>	LM-41 Medicine LM-51 Psychology LM-67 Sciences and Techniques of Preventive and Adapted Motor Activities LM-68 Sports Sciences and Technique LM-85 Pedagogical Sciences LM/SNT1- Nursing and Midwifery Sciences
<b>THEME GREEN</b>  <b>n. 1 Scholarship</b>	<p><b>n. 1 Scholarship</b> <span style="float: right;"><b>CODE PON 19</b></span></p> <p><b>Research Topic</b> Development of innovative programs for promoting pro-environmental behaviors in everyday life contexts</p> <p><b>Abstract</b> The issue of environmental challenges and our planet ecosystem quality has long been an object of international interest (Thakur et al., 2017), even more highlighted by the COVID-19 pandemic. Despite the increasingly substantial investments in incentive programs and active policies designed to increase energy efficiency and technological advances in reducing energy consumption, the incoming results tend to be changeable and to recede over time (Geller et al., 2006; McCalley, 2006). The unreliability of both politics and technology in the effort to promote sustainable behaviors by people over time may be due, on the one hand, to the low consideration of the individual-level factors motivating and supporting users and, on the other hand, to the lack of possibility for individuals to interact meaningfully with energy information (Legault et al., 2020). A large number of researches show that the active engagement of people in pro-environmental behaviors - behaviors that minimize or reduce the individual negative environmental impacts (Steg &amp; Vlek, 2009) - seems to be more determined by the promotion of autonomous motivation in contexts of daily life, such as school or family. In this perspective, specific interventions have to be developed to encourage the adoption of pro-environmental behaviors in daily life, with particular attention to the family and school contexts</p> <p><b>Tutor</b> Prof.ssa Francesca Liga</p> <p><b>Research period in company</b> Minimum 6 months</p> <p><b>Company's name</b> Messinaservizi Bene Comune S.p.A. Sede legale: Piazza Unione Europea SNC, 98122 Messina</p>

	<p><b>Research period abroad</b>  maximum 6 months - optional - subject to specific approval, at a foreign public and proven Institute, other than the company previously indicated, and only if functional for the in-depth study of the issues envisaged in the project.</p>
<p><b>THEME</b>  <b>INNOVATION</b>    <b>n. 3 Scholarships</b></p>	<p style="text-align: right;"><b>CODE PON 20</b></p> <p><b>n. 1 Scholarship</b></p> <p><b><u>Research Topic</u></b>  Development of innovative tools for implementing training protocols to enhance high-level cognitive functions across the lifespan</p> <p><b>Abstract</b>  The research topic aims to develop innovative training protocols to enhance high-level cognitive skills crucial for daily activities and social functioning (e.g., prospective memory and social cognition) across the lifespan. Thus, on the one hand, these new tools could promote cognitive development in school-aged children and, on the other hand, could be used to prevent cognitive decline.  Innovative interventions for promoting cognitive well-being are even more relevant in this historical moment since social distancing and the limitation of the environmental stimulation have significantly impacted cognitive health, especially for the most vulnerable age groups such as children and older adults.  Specifically, the training will be developed (i) referring to the embodied cognition theories; (ii) on the basis of a detailed study of the cognitive functioning across the lifespan; (iii) evaluating its efficacy with systematic experimental studies; (iv) in order to implement it in specific apps or software that will allow the dissemination on a large scale.</p> <p><b>Tutor</b>  Prof.ssa Liana Palermo</p> <p><b>Research period in company</b>  Minimum 6 months</p> <p><b>Company's name</b>  BiotechnoMED S.c.a.r.l.   P.I. 03152670794  Viale Europa, Loc. Germaneto, 88100 Catanzaro</p> <p><b>Research period abroad</b>  maximum 6 months - optional - subject to specific approval, at a foreign public and proven Institute, other than the company previously indicated, and only if functional for the in-depth study of the issues envisaged in the project.</p> <p style="text-align: right;"><b>CODE PON 21</b></p> <p><b>n. 1 Scholarship</b></p> <p><b><u>Research Topic</u></b>  Development of innovative tools for the analysis and improvement of spatial orientation skills and visuo-spatial information processing</p> <p><b>Abstract</b></p>

The ability to navigate successfully through familiar and unfamiliar environments develops gradually during childhood and is crucial in daily life. Siegel and White (1975) proposed that spatial knowledge is acquired in three sequential stages: landmark knowledge, with which individuals are able to perceptually discriminate and recognize landmarks along a route; route knowledge, with which individuals can find their way by following a fixed sequence of turns, using landmarks as reference points; and survey knowledge, with which individuals build a cognitive map by understanding the spatial relationships between places within an environment. This survey knowledge of the environment facilitates more complex navigation, such as the ability to find shortcuts. A consistent amount of evidence supports the role played by observation in learning. Since childhood, learning new skills by observing adults or peers represents a fundamental cognitive ability that reduces the time and the attempts needed to learn behaviors and complex actions.

On this basis, specific tools will have to be developed for the analysis and improvement of spatial orientation skills and visuo-spatial information processing.

**Tutor**

Prof.ssa Francesca Irene Foti

**Research period in company**

Minimum 6 months

**Company's name**

BiotechnoMED S.c.a.r.l. | P.I. 03152670794  
Viale Europa, Loc. Germaneto, 88100 Catanzaro

**Research period abroad**

maximum 6 months - optional - subject to specific approval, at a foreign public and proven Institute, other than the company previously indicated, and only if functional for the in-depth study of the issues envisaged in the project.

**n. 1 Scholarship**

**CODE PON 22**

**Research Topic**

Online training to teach clinical reasoning to college students

**Abstract**

Data on the increase in mental health issues related to the pandemic suggest that the demand of mental health professionals in the territory could likely intensify and require the achievement of a mastery of specific clinical skills quickly and in non-traditional ways. It is therefore understandable the increase in scientific interest in more updated and innovative teaching methods for the training of mental health professionals. In particular, the critical issues that emerged regarding the transmission of complex and transversal skills, such as conducting a clinical interview and formulating diagnostic hypotheses, through distance learning mode, suggest the opportunity to prepare evidence-based protocols that can facilitate the acquisition of such skills in an effective and quick way.

The main goal of the project must therefore be to develop a ground-breaking online training that allows the acquisition of clinical reasoning through very realistic

	<p>simulation experiences and to verify its effectiveness. The innovation of the training consists in trying to create, in a virtual environment, a simulation of the first clinical interview and other activities that can promote clinical reasoning, all aimed at the diagnosis and support of fragile subjects.</p> <p><b>Tutor</b> Prof.ssa Patrizia Oliva</p> <p><b>Research period in company</b> Minimo 6 months</p> <p><b>Company's name</b> TiCE - Cooperativa Sociale, con sede legale in loc. Seguzzone n. 3 Alta Val Tidone (PC) CODE fiscale e partita IVA n. 01469260333</p> <p><b>Research period abroad</b> maximum 6 months - optional - subject to specific approval, at a foreign public and proven Institute, other than the company previously indicated, and only if functional for the in-depth study of the issues envisaged in the project.</p>
<p><b>Details research project</b></p>	<p>The research project must be inherent to the research themes established from article 2, paragraph 1 letter a) and lett. b) of D.M. 1061/2021, as specified in article 1 of the notice, and must be inherent to the Research Topic and to the issues concerning the objectives course training courses, described above, with reference to the chosen curriculum.</p> <p>The research project, which can be presented in English or in Italian, must be written in a maximum of 4 folders (30 lines of 90 characters each) including any diagrams or graphs, using only the facsimile available on website <a href="https://web.unicz.it/it/category/bandi-ateneo">https://web.unicz.it/it/category/bandi-ateneo</a>.</p>
<p><b>Qualifications and research project evaluation results publication date</b></p>	<p>By <b>09:00 a.m. (Italian time) 27 October 2021</b> on website <a href="https://web.unicz.it/it/category/bandi-ateneo">https://web.unicz.it/it/category/bandi-ateneo</a></p>
<p><b>Interviews</b></p>	<p><b>27 October 2021, 09:00 a.m. (Italian time).</b></p> <p>The interview will take place in telematic mode on the Meet Gmail platform in the manner established in art. 6 of the notice.</p> <p>Access link to the virtual classroom <a href="https://meet.google.com/fqq-iehh-pmx">https://meet.google.com/fqq-iehh-pmx</a></p>
<p><b>Foreign Language</b></p>	<p><b>English</b></p>

**LIFE SCIENCES**



<b>Disciplinary/Scientific Sectors</b>  <b>ACADEMIC FIELDS</b>	<p> <i>AGR / 18 - NUTRITION AND ANIMAL FEEDING</i>  <i>CHIM / 06 - ORGANIC CHEMISTRY</i>  <i>CHIM / 08 - PHARMACEUTICAL CHEMISTRY</i>  <i>CHIM / 09 - PHARMACEUTICAL APPLIED TECHNOLOGIES</i>  <i>BIO / 10 – BIOCHEMISTRY</i>  <i>BIO / 11 -MOLECULAR BIOLOGY</i>  <i>BIO / 14 - PHARMACOLOGY</i>  <i>BIO / 15 - PHARMACEUTICAL BIOLOGY</i>  <i>MED / 04 - GENERAL PATHOLOGY</i>  <i>MED / 07 - MICROBIOLOGY AND CLINICAL MICROBIOLOGY</i>  <i>MED / 17 - CONTAGIOUS DISEASES</i>  <i>MED / 35 - SKIN AND VENEREAL DISEASES</i>  <i>MED / 38 - GENERAL AND SPECIALIST PEDIATRICS</i>  <i>MED / 42 - GENERAL AND APPLIED HYGIENE</i>  <i>MED / 43 - FORENSICS</i>  <i>MED / 49 - APPLIED DIETETICS AND TECHNOLOGIES SCIENCES</i>  <i>MED / 50 - APPLIED MEDICAL TECHNICAL SCIENCES</i>  <i>VET / 06 - PARASITOLOGY AND ANIMAL PARASITIC DISEASES</i>  <i>ING-INF / 01 – ELECTRONICS</i>  <i>CHIM / 03 - INORGANIC GENERAL CHEMISTRY</i>  <i>MED / 12 – GASTROENTEROLOGY</i>  <i>MED / 14 – NEFROLOGY</i>  <i>MED / 25 – PSYCHIATRY</i>  <i>BIO / 13 - APPLIED BIOLOGY</i>  <i>MED / 13 –ENDOCRINOLOGY</i>  <i>MED / 28 - ODONTOSTOMATOLOGICAL DISEASES</i>  <i>MED / 18 - GENERAL SURGERY</i>  <i>VET / 05 - INFECTIOUS DISEASES OF PETS</i>  <i>CHIM/10 – FOOD CHEMISTRY</i>  <i>M-EDF/01 - METHODS AND DIDACTICS OF MOTOR ACTIVITIES</i> </p>
<b>Educational Objectives</b>	<p>       The aim of the programme is the training of experts in Life Sciences research following one of the four curricular areas:        Following the curricula for which there are additional scholarships:  <i>Pharmaceutical sciences</i>, which includes themes relating to the development of the drug in a general sense: from drug discovery, in silico, to the preparation and extraction of active principles, privileging the green chemistry approaches, their conveying, through advanced drug delivery systems, and in vitro and in vivo bio-pharmaceutical characterisation.  <i>Toxicology and food sciences</i>, regarding themes linked to food security for both men and animals, included the valorisation of the agricultural and food heritage.  <i>Biotechnological and Veterinary Sciences</i>, which studies the characterisation of molecular mechanisms causing physio-pathological phenomena through advanced biotechnological and veterinary approaches of genomics and proteomics.     </p>
<b>Programme Duration:</b>	3 years
<b>Coordinator</b>	Prof. Stefano Alcaro
<b>E-mail Coordinator</b>	<a href="mailto:alcaro@unicz.it">alcaro@unicz.it</a>
<b>Degree classes required for admission:</b>	LM-6 Biology LM-8 Industrial biotechnologies LM-9 Medical, veterinary and pharmaceutical biotechnologies

	<p>LM-13 Pharmaceuticals and industrial pharmaceuticals          LM-17 Physics          LM-21 Biomedical engineering          LM-22 Chemical engineering          LM-29 Electronics          LM-41 Medicine          LM-42 Veterinary medicine          LM-46 Dentistry and dental prosthetics          LM-53 Material science and engineering          LM-54 Chemical sciences          LM-60 Nature sciences          LM-69 Agricultural sciences and technologies          LM-70 Food sciences and technologies          LM-71 Industrial chemistry science and technologies          LM-75 Environment and land sciences and technologies          LM-86 Animal husbandry science and technology</p>
<p><b>THEME</b> <b>GREEN</b></p> <p><b>n. 5 Scholarships</b></p>	<p><b>n. 1 Scholarship</b> <span style="float: right;"><b>CODE PON 23</b></span></p> <p><b><u>Research Topic</u></b>          Calabrian ethnobotanic biodiversity and nutraceuticals</p> <p><b><u>Curriculum of the Ph. D. Programme</u></b>          Toxicology and food sciences</p> <p><b><u>Abstract</u></b>          The aim of the project is the creation of an ortho-botanical based on the biodiversity of native species typical of the Calabrian territory with high nutraceutical value.          The availability of large agricultural spaces of the partner company, combined with the accessible ones of the CRISEA center, of which the Magna Græcia University of Catanzaro is a member, allow you to combine, select endemic species and/or develop crops of species typical of the Mediterranean area, favoring those that may have applications in the nutraceutical and pharmaceutical fields. Recent evidence brought forward by the proposing academic group indicates promising new prospects for the use of vitamin substances, such as folic acid, and polyphenolic substances, such as rosmarinic acid, in the prevention of diseases with a high social impact, such as neurodegeneration. Using the mixed in silico and in vitro approach, the salient phases of the project will be articulated as follows:</p> <ol style="list-style-type: none"> <li>1. Selection of native species, with particular reference to those typical of the Mediterranean area, on which to focus main attentions;</li> <li>2. Analysis of the samples using advanced techniques of a separative and spectrophotometric nature;</li> <li>3. Chemocatalogation of bioactive components using Chemotheca's computational approach;</li> <li>4. Virtual screening against relevant targets in the pharmaceutical field (MAO, AChE, HuD and others);</li> </ol>

5. Identification of the species on which to concentrate the cultivars at farm level and at CRISEA;

6. Creation of an ortho-botanical path in the aforementioned agricultural areas.  
The proposed project is part of the green measures that fall into "ecosystem conservation" and "biodiversity".

**Tutor**

Prof. Stefano Alcaro

**Research period in company**

12 months

**Company's name**

Officine Agricole Kr S.r.l.  
Società Agricola - Via Carlo Matteucci snc  
Località Passovecchio - 88900 Crotone (Kr)  
Partita Iva: 03671280794  
Contatto Dr Luigi Martino

**Research period abroad**

6 months - Universidad de La Laguna, Tenerife (ES)

**n. 1 Scholarship**

**CODE PON 24**

**Research Topic**

Nutraceutical effects of the by-products of the Calabrian citrus and olive growing supply chains.

**Curriculum of the Ph. D. Programme**

Toxicology and food sciences

**Abstract**

Clinical and experimental evidence has documented, over the last few years, how bergamot juice and olive milling waters contain high quantities of polyphenols which have shown nutraceutical properties against various pathologies. In particular, it has been documented that the polyphenols of bergamot (naringin, neohesperidin, brutieridin and melitidin), as well as those present in the olive milling waters (oleuropein and hydroxytyrosol), are able to determine beneficial effects for the control of serum values. cholesterol, triglycerides and blood sugar, thus reducing the cardiometabolic risk. Similarly, the olive polyphenols are able to determine both systemic anti-inflammatory action and following topical administration. Finally, both classes of polyphenols possess important antioxidant activities which are extremely effective in modulating cell differentiation in an anti-tumor sense. The present project aims to identify and develop micro-encapsulation methodologies that allow to formulate finished products to be sent to pre-clinical and clinical experimentation of extracts of bergamot and olive tree able to have a better pharmacokinetics than those currently on the market. and to enhance the

by-products of the indigenous citrus and olive oil supply chains for nutraceutical purposes.

**Tutor**

Prof. Vincenzo Mollace

**Research period in company**

6 months

**Company's name**

Salix Nutraceutical Research & Manufacturing srl, sede legale Viale del Lavoro, 14 – 36030 Monte di Malo – (VI) – Italy +39 0445576953 +39 0445579924 [info@salix.it](mailto:info@salix.it)  
Legale Rappresentante: Dr.ssa Linda Masello  
P.IVA: 02769350246

**Research period abroad**

6 months

**n. 1 Scholarship**

**CODE PON 25**

**Research Topic**

Enhancement of the phenolic and polyphenolic nutraceutical components of olive oil.

**Curriculum of the Ph. D. Programme**

Pharmaceutical Sciences

**Abstract**

Product safety and quality of regional agri-food chains through the development of methods of extraction, characterization and separation of active molecules from their waste products with the aim of enhancing the potential of active ingredients in functional and nutraceutical foods. The planned activities will be based on the integration of the historical agricultural and industrial vocation of the country towards the complete realization of a sustainable, circular and synergistic industry based on the concepts of transformative chemistry referring to the transformation of biomass, deriving from agriculture, with a positive impact on health and on the environment as reported by the National Research Program 2021-27 (PNR) in recalling the European Green Deal in the Strategic Objective OT6. "From producer to consumer": a fair, healthy and environmentally friendly food system from cluster 6 Food, Bioeconomy Natural Resources, Agriculture and Environment of Horizon Europe in its articulations 5. Industrial symbiosis, co-located assets and envisaged by the National Strategy of Smart Specialization Italy (SNSI) in the national thematic areas of smart and sustainable industry, energy and environment and health, nutrition, quality of life and in the interconnected areas of regional specialization 5.3.3 Agrifood, 5.3.5 Green Chemistry and 5.3.10 Health.

The importance of olive oil for its health action and has been known since ancient times for which it was traditionally considered as a substance halfway between food and medicine.

Extremely important are phenols, such as tyrosol, polyphenols, such as hydroxytyrosol, oleuropein and its derivatives of hydrolysis which give a slightly bitter and spicy taste.

These compounds have an antioxidant action, in particular on LDL, but they are also vasoprotective, anti-inflammatory, anticoagulant, antitumor, antiallergic. Secoiridoids are part of the polyphenolic compounds and, among these, particular importance is given to oleocanthal and oleacein. Important biological properties are attributed to Oleocanthal, including anti-inflammatory activity, a protective effect against Alzheimer's disease, inhibitory activity against cyclooxygenase (COX) -1 / COX-2 enzymes and a role in cardiovascular disease prevention.

The project intends to experiment with innovative methods of green extraction of bioactive components starting from the use of vegetation water and leaves rather than directly from oil.

The project is able to favor the development of highly profitable products with pharmaceutical and curative applications and through methods with a reduced impact on the environment, due to the contraction of the polluting forms caused by the vegetation waters, which would be clean and/or due to the burning of hard leaves.

**Tutor**

Prof. Antonio Procopio

**Research period in company**

12 months

**Company's name**

Organizzazione dei produttori olivicoli A.O.C. – Società Cooperativa Agricola  
Sede legale: Roccabernarda (Kr) Località Giardini SNC 88835  
P.I./C.F.: 01468710791  
Legale Rappresentante: Potenzzone Gaetano  
email potenzzone.g@assoli.kr.it

**Research period abroad**

6 months

**n. 1 Scholarship**

**CODE PON 26**

**Research Topic**

Anti-obesity nutraceuticals based on plants typical of the Mediterranean area.

**Curriculum of the Ph. D. Programme**

Pharmaceutical Sciences

**Abstract**

The aim of the project is the identification of nutraceutical compounds with a targeted action on isoforms of Carbonic Anhydrase V. This enzyme has been shown to be fundamental in the control of body mass through the inhibition also exerted by natural compounds typical of the Mediterranean Diet. A significant example is that of capsaicin, a fundamental component of plant extracts of the Capsicum species, very widespread in the South and in particular in Calabria. Based on the in silico and in vitro observations that demonstrated the inhibitory action of these active ingredients and its derivatives, the project intends to extend the research to other bioactive components that are found in the extracts characterized by the project partner company.

The salient phases of the project require the following steps:

1. Selection of native species, with particular reference to those typical of the Mediterranean area, on which to focus attention;
2. Analysis of the samples using advanced techniques of a separative and spectrophotometric nature;
3. Chemocatalogation of bioactive components using Chemotheca's computational approach;
4. Virtual screening against isoforms of type V carbonic anhydrase and others of chemical-pharmaceutical interest;
5. Enzyme inhibition experiments on isolated compounds and on extracts with a high concentration of more promising components;
6. In vivo tests on best candidates.

The proposed project is part of the green measures that fall into "ecosystem conservation" and "biodiversity".

**Tutor**

Prof. Francesco Ortuso

**Research period in company**

12 months

**Company's name**

EVRA srl

PI 03904440652 Località Galdo Zona Industriale Lotto 20 85044 Lauria (PZ)

Tel 0973 624 687 [www.evritalia.it](http://www.evritalia.it) [info@evritalia.it](mailto:info@evritalia.it) Rappresentante legale Francesco Fanelli

**Research period abroad**

6 months

Università di Vienna, laboratorio del Prof. Thierry Langer – Vienna (Austria)

**n. 1 Scholarship**

**CODE PON 27**

**Research Topic**

Innovative nanocarriers produced using green techniques for the delivery of essential oils for the treatment of acne.

**Curriculum of the Ph. D. Programme**

Pharmaceutical Sciences

**Abstract**

The proposed research aims to design, manufacture and test innovative nanocarriers prepared by microfluidic techniques, therefore without the use of organic solvents, for the delivery of active ingredients of plant origin, and in particular essential oils for the treatment of acne.

The realization of nanocarriers through the development of innovative microfluidic techniques will drastically reduce the use of organic solvents, leading to numerous advantages, including: reduction of production times, thanks to the fact that organic solvents do not have to be removed, improvement of the safety profile and reduction of

the environmental impact of production waste. Furthermore, essential oils active against *Propionibacterium acnes* will be selected and encapsulated. The latter, an anaerobic Gram positive bacterium, lives in normal conditions on human skin, in particular in the hair follicle, but in conditions of sebaceous hypersecretions it finds a good substrate to reproduce in an uncontrolled manner and determines an inflammatory response mediated by various substances, such as protease, lipase, hyaluronidase which determine the appearance of phenomena associated with acne.

The choice of using essential oils rather than synthetic molecules is due to the desire to drastically reduce the chemical reactions and purification phases that are associated with the synthesis of synthetic molecules.

The project is based on a concept of eco-sustainability and improvement of the environmental impact by reducing the use of organic solvents. The project is in line with the themes of PNR 2021-27, SNSI 2014-20, Framework Agenda 2030 climate and energy European Commission, Horizon Europe 2021-27.

**Tutor**

Prof. Massimo Fresta

**Research period in company**

6 months

**Company's name**

IS.ME.G. S.r.l., Via Giancarlo Sismondi 50, 20133 Milano. P. Iva 00576700793. Stabilimento in Località Passovecchio, Zona industriale, 88900 Crotona. Rappresentante: Dr. Oreste Gualtieri

**Research period abroad**

12 months

Helder A. Santos

Full Professor in Biomedical Engineering,  
 Head, Department of Biomedical Engineering,  
 University of Groningen/ University Medical Center Groningen,  
 Department of BioMedical Engineering-FB40,  
 Ant. Deusinglaan 1, 9713 AV Groningen, The Netherlands,  
 E-mail: h.a.santos@umcg.nl

<p><b>THEME</b></p> <p><b>INNOVATION</b></p> <p><b>n. 1 Scholarship</b></p>	<p><b>n. 1 Scholarship</b> <span style="float: right;"><b>CODE PON 28</b></span></p> <p><b>Research Topic</b>          Innovative experiential paths through essential oils.</p> <p><b>Curriculum of the Ph. D. Programme</b>          Biotechnological and Veterinary Sciences</p> <p><b>Abstract</b>          In recent years, the issue of accessibility in general, more specifically of cultural heritage, has assumed great importance. The fields involved are innumerable and the theme has favored multidisciplinary discussions involving professionals operating in several scientific sectors and encouraging the contamination of knowledge.</p>
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And it is accessibility at the basis of the proposal that aims to develop a methodology based on experiential factors that makes it accessible, thanks to smells and perfumes, the exploration of the surrounding space, whether it is a work of art, an architecture, or a territory.

Specifically, we want to define a method and a standard of odors that it is more appropriate to use when you want to resort to multisensory as a tool for accessibility.

The research will focus on:

1. Preliminary study on the characteristics of odors that can be used through the use of essential oils and their mixing;
2. Selection of samples and planting also in the agricultural area of the CRISEA center, of which the Magna Græcia University of Catanzaro is a member;
3. Collection of samples and analysis of the ideal balsamic time for the extraction of active ingredients through green techniques (low pressure distillation, supercritical CO2 extraction, etc);
4. Analysis of the extracts using innovative techniques applied to natural compounds (gas-mass, HPLC);
5. Digitization of essential oil components on the Chemotheca-like platform;
6. Sensory analysis and selection of extracts suitable for the use of experiential analysis;
7. Corporate application of results and patenting.

The experimentation will be conducted together with associations that deal with disabilities, with social consequences.

The research integrates with the system created in recent years by the partner company. It is a multisensory system for the use of cultural heritage also intended for the disabled, in particular the blind. The system, already patented and extensively tested, is not limited only to the cultural heritage sector, but is susceptible to further and various applications, especially in the field of accessible and inclusive teaching. It needs to be optimized precisely in relation to the aspects related to the identification of odors to be used, in order to improve the immersive experience currently offered.

**Tutor**

Prof.ssa Anna Artese

**Research period in company**

12 months

**Company's name**

TEA srl

CONTRADA SANTA DOMENICA 48E 88100 CATANZARO

P.I./C.F. 02068160791

Legale Rappresentante ELENA CONSOLE

[elena@teacz.com](mailto:elena@teacz.com)

**Research period abroad**

6 months

Inte:Ligand

Software-Entwicklungs und Consulting GmbH

Clemens Maria Hofbauer-Gasse 6

A-2344 Maria Enzersdorf



	Austria
<b>Details research project</b>	<p>The research project must be inherent to the research themes established from article 2, paragraph 1 letter a) and lett. b) of D.M. 1061/2021, as specified in article 1 of the notice, and must be inherent to the Research Topic and to the issues concerning the objectives course training courses, described above, with reference to the chosen curriculum.</p> <p>The research project, which can be presented in English or in Italian, must be written in a maximum of 4 folders (30 lines of 90 characters each) including any diagrams or graphs, using only the facsimile available on website <a href="https://web.unicz.it/it/category/bandi-ateneo">https://web.unicz.it/it/category/bandi-ateneo</a> .</p>
<b>Qualifications and research project evaluation results publication date</b>	By <b>27 October 2021</b> on website <a href="https://web.unicz.it/it/category/bandi-ateneo">https://web.unicz.it/it/category/bandi-ateneo</a>
<b>Interviews</b>	<p><b>28 October 2021, 09:00 a.m. (Italian Time)</b></p> <p>The interview will take place in telematic mode on the Meet Gmail platform in the manner established in art. 6 of the notice.</p> <p>Access link to the virtual classroom <a href="https://meet.google.com/foi-jdwp-wzy">https://meet.google.com/foi-jdwp-wzy</a></p>
<b>Lingua straniera</b>	<b>English</b>