

SELECTIVE COMPARATIVE ASSESSMENT PROCEDURE FOR TITLES AND EXAMINATIONS FOR THE AWARDING OF No. 2 TYPE B RESEARCH GRANTS FOR CARRYING OUT RESEARCH ACTIVITIES

THE RECTOR

IN VIEW OF The Statute of the University of Messina, issued with the Decree of the

Rector (D.R.) No. 1244 of 14th May 2012 (published on G.U. – Serie Generale No. 116 of 19th May 2012) and modified with D.R. No. 3429 of 30th December 2014 (published on G.U. – Serie Generale No. 8 of

12th January 2015);

IN VIEW OF the Decree of the President of the Republic (D.P.R.) No. 445 of 28th

December 2000 and subsequent amendments and integrations;

IN VIEW OF the law No. 240 of 30th December 2010 and particularly article 22

which deals with the modalities for the awarding of Research Grants

for carrying out research activities by University;

IN VIEW OF the Ministerial Decree (D.M.) No. 102 of 9th March 2011 which

determined the gross minimum annual amount of the Research Grants

in accordance with the above-mentioned law;

IN VIEW OF the Regulation for the awarding of Research Grants of the University of

Messina for carrying out research activities, as modified by D.R. No.

1394 of 28th June 2019;

IN VIEW OF the abstract of the minutes of the Steering Committee of Department of

Biomedical, Dental Sciences and Morphological and Functional Images, prot. No. 99969 of 22th October 2019 and the notes of the Director of the aforementioned Department, prot. No. 12348 of 3rd February 2020 and prot. No. 30106 of 16th March 2020, concerning the approval of the request for activation of No. 2 Type B Research Grants, responsible Professor Angelo Quartarone, for carrying out research activities entitled titolo "Analisi avanzata segnale EEG e analisi network muscolari" (Area CUN 06 S.S.D. MED/48) on the funds of the Project "Exercise and Plasticity in Parkinson's Disease: Functional and Structural Evidence in the Cortex and the Spinal Cord",

CONTRIB US W81XW51910810, CUP J44I19001710005;

GIVEN THAT the C.A. 04.43.08 of Bilancio Unico d'Ateneo di previsione 2020

provides the necessary economic coverage on the Project CONTRIB_US_W81XW51910810, CUP J44I19001710005, just note of the administrative Secretary of the aforementioned Department, prot.

No. 30106 of 16th March 2020;

DECREES





Art. 1

Announcement

- 1. A comparative assessment procedure is launched, based on titles and examinations, aimed at the awarding of **No. 2** Type B Research Grants, pursuant to article 22 par. 4 lett. b) of the law No. 240 of 30th December 2010 and the *University Regulations for the awarding of research grants for research activities*.
- 2. The research topic and the structure, in which the research activities will be carried out, are indicated in Attachment A, which is an integral part of this announcement.
- 3. The research grant has a duration of 1 (one) year and may be renewable.

Art. 2 General Admission Requirements and incompatibilities

- 1. <u>Those who meet the following requirements</u> can participate in the selection, without age or citizenship limits:
 - a. PhD degree title in the relevant scientific disciplinary area, obtained in Italy or equivalent title obtained abroad;
 - b. Or, for the interesting sectors, specialization title in medical area accompanied by an adequate scientific production.
 - The suitability of the foreign qualification will be ascertained by the Committee, for the sole purpose of this selection, in compliance with the legislation in force, in Italy and in the country where the qualification was issued and in compliance with the international treaties or agreements concerning the recognition of qualifications for the continuation of the studies;
 - c. knowledge of foreign language indicated in the Attachment A.
- 2. The admission requirements and any qualifications **must be held** at the deadline for submitting the application form.
- 3. Those who have a degree of kinship or affinity, up to and including the fourth degree, with a professor belonging to the Department or the structure making the call or with the Rector, the *Direttore Generale* or a member of the *Consiglio di Amministrazione* of University, **cannot participate in the procedure**, pursuant to article 18 paragraph 1, point c) of law No. 240 of 30th December 2010.
- 4. The research grants cannot be awarded:
 - a. to the permanent staff of Universities, Institutions and public research and experimentation institutions, of *Agenzia Nazionale per le nuove tecnologie, l'energia e lo sviluppo economico sostenibile* (ENEA, National Agency for New Technologies, Energy and Sustainable Economic Development) and of *Agenzia Spaziale Italiana* (ASI, Italian Space Agency), as well as of institutions whose scientific specialization diploma was recognized as equivalent to the title of Research Doctor, pursuant to article 74 paragraph 4 of the D.P.R. No. 382 of 11th July 1980;





The entitlement of the research grant entails, for employees in service with public administrations, other than those mentioned above, the placement on unpaid leave for the duration of the research grant;

- b. to those who were recipients of research grants, according to Law 240/2010, for a period that, added to the duration envisaged by the contract announced, exceeds a total of 6 years. In the aforementioned period, any renewals are counted except for the time period in which the grant was received in conjunction with the research doctorate, up to the maximum legal duration of the relative course;
- c. to those who were recipients of research grants and fixed-term research contracts, respectively pursuant to articles 22 and 24 of law 240/2010 at the University of Messina or in other Italian, state, non-state or computerized Universities, as well as at the institutions referred to in paragraph 1 of art. 22 of the law 240/2010 for a period that, added to the duration foreseen by the announced contract, exceeds a total of 12 years, not necessarily continuous.

For the purposes of the duration of the aforementioned relationships, the periods spent on maternity leave or for other reasons, in accordance with current legislation, are not recorded.

- The entitlement of the research grant **is not compatible** with the enrollment in Bachelor degree courses, Specialist or Master's degree courses, PhD courses with scholarship or medical specialization schools, in Italy or abroad, as well as with the enrollment in another school/course that, by requiring compulsory attendance, prevents the carrying out the activities provided for in the contract.
- The research grant **cannot be combined** with scholarships awarded for any purpose, whatsoever except for those awarded by national or foreign institutions useful for integrating with stays abroad the research activities of the holders. The research grant **is also not combined** with the employment or with other grants or collaboration contracts for the research activity.
- The research grant holder <u>can carry out</u> a limited self-employed activity, prior written notice and agreement with the responsible professor, provided that this activity is declared compatible by the Structure where the research activity is carried out and does not involve a conflict of interest with the research activity carried out for the University. The researcher can also carry out guidance and mentoring activities and attend exams as a subject expert.
- 8 At any time, University can order **the exclusion** from the procedure due to the lack of the prescribed requirements or the forfeiture of admission and/or any benefits obtained.

Art. 3 Application for admission

1. The application for admission to the assessment procedure, as well as the qualifications held, documents and publications deemed useful for the competition





must be **submitted**, **under penalty of exclusion**, **by electronic means**, using only the appropriate IT procedure made available at https://pica.cineca.it/unime/.

The IT application will necessarily require the possession of an e-mail address, in order to be able to self-register to the system.

The candidate must enter all the data required for the production of the application and attach the documents in PDF format.

No other forms of sending applications or useful documentation for participation in the procedure are allowed.

Within the application deadline, the system allows saving in draft mode. The date of electronic submission of the application for admission in the selection is certified by the computer system, through a receipt sent automatically by e-mail. Once the deadline for submission has expired, the system will no longer allow the access and the sending of the electronic form.

Each application will be assigned an identification number which, together with the competition code indicated in the IT application, must be specified for any subsequent communication.

The procedure for completing and submitting the application electronically must be completed no later than 12.00 (Italian time) on the twentieth day following the date of publication.

The submission of the application form must be finalized and concluded as follows:

- **by manual signature**: to manually sign the document you must download the PDF file generated by the system on your computer, and, without modifying it in any way, print it, affix a handwritten signature on the last page of the document, scan it into a PDF file and upload it on the system;
- by digital signature on the ConFirma server: to digitally sign the document it is necessary to have a hardware (for example smart card or USB device with digital subscription certificate issued by an accredited Certifier) compatible with the ConFirma service; after the signature, it will be possible to download the signed PDF:
- by digital signature on the PC: to digitally sign the document you need a hardware (for example smart card or USB device with digital certificate of subscription issued by an accredited Certifier) and a digital signature software to generate, from the PDF file of the document downloaded from the website, the signed file in pdf.p7m format to reload on the site itself.

Under penalty of exclusion, the application must contain all the data requested in the IT procedure and must be signed and accompanied by a valid identification document of the candidate.

For any technical problems, candidates may send an e-mail to <u>unime@cineca.it</u>.

- 2. In the application, the candidate must declare, pursuant to the D.P.R. No. 445 of 28th December 2000 and subsequent amendments and integrations:
 - a. name and surname;
 - b. date and place of birth;
 - c. citizenship;
 - d. residence and domicile elected for the purpose of participating in the procedure;



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- e. not to have reported criminal convictions and not to have ongoing criminal proceedings (if not, indicate which);
- f. the qualifications in possession: PhD diploma in the relevant scientific subject area, or the possession of an equivalent qualification obtained abroad. The suitability of the foreign qualification can be ascertained by the Committee, only for the purposes of this selection, in compliance with the regulations in force;
- g. to have knowledge of the foreign language in accordance with Attachment A;
- h. not to have a degree of kinship or affinity, up to and including the fourth degree, with a Professor belonging to the Department or the Structure making call, or with the Rector, the *Direttore Generale* (General Manager) or a member of *Consiglio di Amministrazione* (Board of Directors) of University;
- i. not to belong to the permanent staff of Universities, Institutions and public research and experimentation institutions, of *Agenzia Nazionale per le nuove tecnologie, l'energia e lo sviluppo economico sostenibile* (ENEA, National Agency for New Technologies, Energy and Sustainable Economic Development) and of *Agenzia Spaziale Italiana* (ASI, Italian Space Agency), as well as of institutions whose scientific specialization diploma was recognized as equivalent to the PhD degree, pursuant to article 74 paragraph 4 of the D.P.R. No. 382 of 11th July 1980;
- j. not to work as an employee or to be aware that the entitlement of the research grant entails, for employees in service at public administrations other than those mentioned in the point h, the placement on unpaid leave for the entire duration of the research grant and not to be the beneficiary of other research grants or collaborations for the research activity;
- k. not to have received research grants pursuant to Law 240/2010 for a period which, added to the duration envisaged by the contract announced, exceeds a total of 6 years. In the aforementioned period, any renewals are calculated with the exception of the time period in which the grant was received coinciding with the PhD course, within the maximum legal duration of the course;
- 1. not to have received research grants and fixed-term researcher contracts, respectively pursuant to articles 22 and 24 of Law 240/2010 at the University of Messina or at other Italian, state, non-state or computerized Universities, as well as at the institutions referred to in paragraph 1 of art. 22 of Law 240/2010 for a period which, added to the duration provided by the contract announced, exceeds a total of 12 years, even if not continuous;
- m. to be aware that the entitlement of the research grant is not compatible:
 - with enrollment in Bachelor's degree courses, Master's degree courses, PhD courses with scholarship or medical specialization school, in Italy or abroad, as well as with enrollment in another school/course which, providing for mandatory attendance, prevents the conduct of the activities foreseen in the contract;





- with the use of scholarships awarded for any purpose, with the exception of those granted by national or foreign institutions useful for integrating research activities with stays abroad;
- with enrollment in courses which, providing for compulsory attendance, prevent the performance of the activities foreseen in the contract;
- with employment and other grants or collaboration contracts for research activities;
- n. The candidate with a disability must specify, in the application form, the necessary aid in relation to his/her own handicap and the possible need for additional time, documented by a suitable certification issued by the public health authority responsible for the territory, in accordance with Law No. 104/92, as amended by Law No. 17/99.
 - The candidate with a diagnosis of specific learning disabilities (SLD) must specify, in the application form, the necessary compensatory tools and the possible need for additional time, documented by a suitable certification issued by NHS structures for no more than three years, or by specialists and facilities accredited by the same, pursuant to Law No. 170/2010 and subsequent D.M. guidelines No. 5669, 12th July 2011.
 - For any information, the candidate may contact Dr. Davide Savasta (e-mail: davide.savasta@unime.it tel. 090 6768986) office manager for the University's "Disability Services/DSA" Operating Unit, located in via Consolato del Mare, No. 41, Palazzo Mariani, Messina.
- 3. At any time during the procedure, the University can carry out checks on the veracity of the declarations produced. In the event of false declarations, University may dispose at any time, with a provision of the Rector, **the exclusion** of candidates from the selective procedure, or **the forfeiture** from the assignment and any benefits acquired, without prejudice to any criminal liabilities arising therefrom.
- 4. The candidates must attach to the application form:
 - a. curriculum in *Europass format* of his/her scientific-professional activity signed and dated;
 - b. list of publications and titles;
 - c. publications and/or titles whose evaluation is requested;
 - d. candidates, <u>EU and non-EU citizens</u>, in possession of foreign qualification/s obtained in non-EU countries, <u>must attach</u> the certificate of qualification/s in possession, which indicates:
 - the duration of the course;
 - the indication of the University that issued the title;
 - the date of achievement and the final vote;
 - with attached a translation in Italian or English, declared compliant with the text by the competent diplomatic or consular representations abroad;
 - e. health certification for disability or SLD;
 - f. scanned copy of a valid identity document with photo;
- 5. For the purpose of this procedure, scientific publications published by the deadline of the announcement for applications can be evaluated.





- 6. The publications and/or the attached qualifications must be declared compliant with the originals by means of a substitutive declaration of the deed of notoriety pursuant to articles 19 and 47 of the D.P.R. No. 445 of 28th December 2000 and subsequent amendments and integrations (point 4.3 of the application form).
- 7. Candidates can also demonstrate the possession of the qualifications indicated above by self-declaration, pursuant to D.P.R. No. 445 of 28th December 2000 and subsequent amendments and integrations.

They can make use of the self-certifications, as expressly provided in articles 46 and 47 of the DPR No. 445/2000 and subsequent amendments and integrations:

- Italian and EU citizens;
- citizens of countries not belonging to the European Union, legally resident in Italy, <u>limited to</u> states, personal qualities and facts certifiable or attestable by Italian public institutions (in particular: qualification obtained at an Italian university).
- 8. The documents listed above must be entered on the platform, in PDF format (whose maximum size must not exceed 30 MB).
- 9. The Administration assumes no liability for any inconvenience attributable to the fact of a third party, by chance or force majeure and related to the forwarding of the application form.

Art. 4 The Evaluation Committee

- 1. For the purpose of evaluating the candidates' applications, the Council of the structure to which the grant has been awarded, proposes to the Rector the appointment of the Evaluation Committee which it consists of four professors and/or university researchers, including three permanent and one supply, belonging to the same disciplinary scientific area of the responsible professor of the project, who, unless expressly renounced, is part of the Committee and assumes the functions of President. The Commission is appointed by Decree of the Rector and must complete the work within twenty days of the deadline for submitting applications.
- 2. The Evaluation Committee, at its first session, establishes the evaluation criteria of candidates, with regard to the qualifications submitted, which will be published on the University website https://www.unime.it/it/ricerca/assegni-di-ricerca
 Subsequently, it carries out a comparative assessment of candidates on the basis of the titles presented and an interview.

Art. 5 Comparative assessment of candidates

- 1. The comparative assessment tends to ascertain the candidate's preparation, experience and aptitude for research.
 - It consists of the evaluation of the titles presented and an interview based on a discussion of the titles themselves, with an in-depth examination of the topics of particular scientific importance related to the research programme and the verification





of knowledge of the foreign language referred to the Attachment A of this announcement.

- 2. The overall score is 100 points, divided as follows:
 - up to a maximum of 75 points assignable to qualifications;
 - up to a maximum of 25 points assignable to the interview.
- 3. The minimum score that candidates must have obtained in the evaluation of qualifications in order to be admitted to the interview is 40/75 points.
- 4. In the evaluation of the disciplinary scientific curriculum shall be taken into account:
 - any specialization diplomas and/or certificates of attendance for post-graduate courses obtained in Italy or abroad;
 - the carrying out documented experience for research activities in public and/or private bodies with contracts, scholarships or assignments, both in Italy and abroad;
 - any scientific publications;
 - any other qualifications.
- 5. The assessment must be adequately motivated. The results of the evaluation of the titles, as well as the list of candidates admitted to the interview, will be published on the University website https://www.unime.it/it/ricerca/assegni-di-ricerca, before the established date for the interview.
 - The publication will be valid as legal notification, according to the Regulations of the digital administration D. Lgs. No. 82 of 7th March 2005 supplemented and amended by law 35/2012.
- 6. The interview will take place in a place accessible to the public. The competition works can be carried out also with telematic methods, adopting means that allow the appropriate recognition of the subjects involved.

The interview will take place on 22th July 2020 at 10:30 in telematic mode, via IT platform reachable by accessing teams.microsoft.com website.

- Candidates must have a valid identification document. Failure to submit to the interview will be considered as **renunciation** of selection.
- 7. The interview concerns the discussion of the qualifications themselves, with an indepth examination of the topics of particular scientific importance related to the research programme listed in Attachment A of this announcement, and the knowledge of the foreign language required.
- 8. At the end of each session devoted to the interview, the Committee shall draw up a list of the examined candidates, together with an indication of the vote recorded by each person, which shall be placed on the register of the examination center.
- 9. After the completion of the exams, the Evaluation Committee shall draw up a ranking list of merit on the basis of the sum of the obtained scores, designating the candidate who, based on the final ranking, has been the winner. For equal merit and qualifications is preferred the youngest candidate of age.
- 10. The Evaluation Committee communicates the name of the winner to the Director of the University Department proposing the announcement and send out all the reports to the Rector and to the Research Grants Unit, finalizing the entire procedure.





11. The results of the evaluation are formalized by Decree of the Rector and published on the University website https://www.unime.it/it/ricerca/assegni-di-ricerca.

Art. 6 Awarding of the Research grant

- 1. The winner of the research grant is required to accept the research grant within 20 days of the publication of the ranking on the University's website, penalty forfeiture, unless impeded due to health reasons or serious reasons duly and promptly justified and proven.
- 2. If, within 20 days of the publication of the ranking on the University's website, the candidate has not communicated the acceptance of the research grant, or he/she renounces it, the suitable candidates are summoned until the ranking scrolls. In the event that the competition has been deserted or has not given rise to any winner, the competition itself may be re-launched, on request of the Structure, within 30 days of the conclusion of the work of the Evaluation Committee.

 The announcement can be repeated only once and by Decree of the Rector.
- 3. The research grants are renewable, according to the verification of the economic coverage by University of Messina, with the modalities provided by art. 12 of the current "Regulation for the awarding of research grants for carrying out research activities".
- 4. The gross annual amount of the research grant is determined in € 36,000.00 (thirty-six thousand euros), to be considered gross of the costs borne by the University. The grant is paid in deferred monthly installments.
- 5. The provisions of art. 4 of Law No. 476 of 13th August 1984 and subsequent amendments and integrations in the tax matters are applied to the research grant; in social security matters, the provisions of art. 2, paragraph 26 and subsequent of the Law No. 335 of 8th August 1995 and subsequent amendments and integrations.
- 6. As regards the risks from accidents and civil liability are concerned, the University provides insurance cover for the research grant holder.

Art. 7 Nature and conclusion of the contract

- 1. The relationship between the winner of the research grant and the University will be settled by the conclusion of a contract of private law.
- 2. The contract does not constitute an employment relationship and it does not give rise to rights of access to the roles of University staff.

Art. 8 Rights and duties of research grant holders

1. The research activity, according to article 9 of the Regulation for the awarding of research grants, must be carried out continuously, within the limits foreseen by



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- research programmes and by the instructions given by the responsible professor, who verifies the activity performed, without constraints of subordination and predefined working hours.
- 2. The research grant holder has the right to benefit of the facilities and equipment of the Department in which he/she carries out his/her work, for the purpose of carrying out research activities. If the activity is to be carried out in external structures, it must be expressly authorized by the responsible professor and communicated to the competent Central Administration Office of the University.
- 3. The duties of the research grant holder, as determined by the individual contract, are carried out under the direction of the responsible professor, who verifies the activity performed.
- 4. The research grant holder is required to:
 - to submit to the Council of the reference Structure, at least 30 days before the date of completion of the year of activity, an annual report on the activity carried out, subject to the approval of the responsible professor;
 - in the last year of activity, to present the final results of his/her work in a public seminar or in the forms defined by the reference structure, which approves the scientific validity and communicates it to the competent Office of the Central Administration of the University.
- 5. The research grant holder <u>can carry out</u>:
 - limited self-employment, subject to a written communication and agreement with the responsible professor, provided that this activity does not involve a conflict of interest and it is declared compatible with the regular conduct of the research activity by the Structure concerned. The assessment of the compatibility and the absence of conflicts must be adequately motivated;
 - orientation and mentoring activities and examination assistance as a subject expert;
 - a period of in-depth study abroad, obtaining specific attestation from the host institution, according to a programme to be defined with the responsible professor and approved by the reference structure, as well as with costs borne by the structure, without prejudice to the possibility of access to targeted incentives.
- 6. The research grant holder of the medical area can carry out assistance activities consistent with the research project, under the supervision of the responsible professor and prior authorization of host hospital structure that promptly notifies the competent office of the University's central administration.
- 7. The research grant holder is required to observe the provisions of law No. 240/2010 and the University Regulations for the awarding of research grants for carrying out research activities. He/she is also required to respect the current industrial property rules, the D.P.R. No. 62/2013 containing the "Regulation on the Code of Conduct for Public Employees", the "Code of Conduct adopted by the University", as well as the provisions contained in the "Ethical Code" of the University.





Art. 9 Suspension, withdrawal and termination of contract

- 1. The activity of the research holder **is suspended** for maternity (five months). It may also be **suspended** due to serious illness or in the event of prolonged, motivated and justified absences, which make objectively impossible to carry out the activity, subject to the opinion of the responsible professor and deliberate of the structure.
- 2. The periods of suspension, with the exception of compulsory maternity leave, can be recovered at the end of the natural expiry of the contract, by agreement with the responsible professor and within the limits imposed by the funding available. In the case of maternity, the contract is automatically extended, in accordance with the rules in force, while respecting the limits imposed by the funding available.
- 3. A total period of justified absence of not more than thirty working days per year shall not constitute suspension and it shall not be recovered.
- 4. During the maternity leave period, the research grant holders are entitled to the relevant allowance paid by the INPS (Italian Social Security Institution), in accordance with the current maternity rules and the Decree of the Minister of Labour and Social Security of 12th July 2007 and, in the case of sick leave of more than four days, they are entitled to benefit of the daily sickness allowance within the limits provided for in Law No. 296 of 27th December 2006.

 In the period of compulsory abstention for maternity, pursuant to article 5 of the
 - In the period of compulsory abstention for maternity, pursuant to article 5 of the mentioned decree of 12th July 2007 the allowance paid by the INPS is integrated by the University, up to the amount of the entire research grant.
- 5. The parties may **withdraw** from the contract at any time. The withdrawal must be motivated. The research grant holder who intends to withdraw from the contract is required to **promptly** notify to the Rector and to the reference Structure.
- 6. If the research grant holder, without a justified reason, does not regularly carry out the research activity, or if it is considered invalid by the Council of the reference Structure or the grant holder is responsible for serious and repeated failures, upon request of the responsible professor approved by the Council of the Structure, a procedure is initiated which can lead, following a deliberation of the *Consiglio di Amministrazione*, to the **termination of the contract**, pursuant to articles 1453 and following of the Civil Code. The **cause of termination** of the relationship is the serious and significant breach pursuant to art. 1460 cc, by the research grant holder.
- 7. The contract **shall be terminated automatically**, without any prior notice, in the hypothesis of violation of the incompatibility regime. In the latter case, forfeiture and termination of the contract are arranged by decree of the Rector.
- 8. The contract **is** also **terminated** in case of violation of the obligations deriving from the *Code of Conduct of employees*, referred to in the D.P.R. No. 62 of 16th April 2013 and the *Code of Conduct* adopted by the University.



Art. 10 Intellectual property

- 1. Industrial property rights on the results achieved by the research grant holder in the execution of activities carried out on behalf of the University, included by way of example, industrial inventions, models, designs, plant varieties, as well as intellectual and industrial property rights deriving from the creation of software o databases ("Results"), belong exclusively to the University that can freely dispose of them, even within the framework of conventional agreements concluded by the structures with third parties, without prejudice to the moral right of the research grant holder to be recognized author or inventor. In the case of economic exploitation of the invention, the research grant holder has the right to fair compensation.
- 2. The research grant holder has the right to publish the Results of his/her research activities, unless the publication does not prejudice the right of the University to protect the results. The research grant holder is therefore required to communicate the achievement of the Results to the responsible professor without delay.

Art. 11 Processing of personal data

- 1. The processing of personal data connected to this competition procedure is carried out by the University, in accordance with the European General Regulation No. 679/2016 for the protection of personal data and the Code regarding the protection of personal data Legislative Decree No. 196/2003 and subsequent amendments and integrations.
- 2. The report is available in the privacy section of the University, http://www.unime.it/privacy and it is an integral part of this announcement. By signing the application form, the candidate acknowledges having read the aforementioned report and gives consent to the processing of personal data in the manner indicated therein.

Art 12 Responsible of the procedure

1. The person in charge of the procedure is Dr. Maria Pia Mangano, responsible of Org Unit Research Services of the Administrative Department "Research and internationalization" of this University. For information, interested parties may contact the Org Unit Research – Operating Unit Grants and Research fellowships of the Administrative Department "Research and internationalization" of this University (telephone numbers: 0906768503/8574/8615; e-mail: assegni@unime.it).



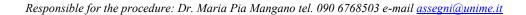
Art. 13 *Publicity*

1. The present decree will be published through a notice posting on the Online Register of the University of Messina, it will also be made public electronically on the University websites (https://www.unime.it/it/ricerca/assegni-di-ricerca), MIUR (https://bandi.miur.it/) and the European Union (https://ec.europa.eu/euraxess/).

Art. 14 Final rules

- 1. Although not explicitly mentioned in this announcement, reference is made to the standards contained in art. 22 of the law No. 240/2010, in the D.P.R. No. 62/2013 containing the "Regulations on the Code of Conduct of civil employees" and of the "Code of Conduct adopted by the University" as well as the provisions contained in the "Code of Ethics", in the Regulations for the awarding of grants for the carrying out research activities (research grants) of the University of Messina (D.R. No. 1394 of 28th June 2019), as well as other provisions in force.
- 2. The submission of the application for participation in the selections through the online procedure, as per article 3, implies the acceptance by the candidate of the rules contained in this announcement and in the mentioned regulations.

THE RECTOR
Prof. Salvatore Cuzzocrea







ATTACHMENT A

Title of Research Project in English:

"Analisi avanzata segnale EEG e analisi network muscolari" (Advanced EEG signal analysis and muscle network analysis)

Principal research fields:

□ Agrarian Science □ Anthropology □ Architecture □ Arts □ Astronomy □ Biological Sciences
□ Chemistry □ Science of Communication □ Computer Science □ Criminology □ Social
Studies Demography Economics Education Engineering Environmental Science
□Ethics of Health Sciences □Ethics of Natural Sciences □Ethics of Physical Sciences
□Ethics of Social Sciences □Geography □History □Information Technology □Juridical
Science □Linguistics □Literature □Mathematics □Medical Science ☑ Neuroscience
□Pharmaceutical Science □Philosophy □Physics □Political Science □Psychology
□Religious Studies □Technology □Other

Area CUN: 06 – N1 Medical area

S.S.D: MED/48

Brief Description in English: (maximum 900 characters with spaces included)

Our hypothesis is that an intensive rehabilitation program may induce phenomena of cortical plasticity in patients with Parkinson's disease. The neuroplasticity study will be conducted with a multimodal approach which includes: transcranial magnetic stimulation (TMS), modulation of beta activity after motor learning activity, assessed with high density EEG (HD-EEG); evaluation of muscle synergies by electromyographic polygraphy; structural imaging of the brain by diffusion magnetic resonance imaging (DWI) and night sleep studies. So we will evaluate:

AIM 1: exercise effect on functional (TMS, HD-EEG) and structural (DWI) neuroplasticity at cortical level

AIM 2: exercise effect on functional neuroplasticity at the spinal level through the study of muscle synergies.

AIM 3: exercise effect on sleep micro-structure in view of its alteration in parkinsonian patients to see if the positive effect of exercise on plasticity occurs in sleep.

In this scenario the candidate applying for this position should evaluate the effect of physical exercise on cerebral electrical activity evaluated with EEG during wake and sleep in normal subjects and in patients with PD (AIM 1-3). In addition is also required an experience in advanced analysis of the electromyographic signal to evaluate muscle synergies (AIM 2).





Scientific Responsible of the Project: Professor Angelo Quartarone

Number of positions: 2

Duration of assignment: 12 months **Renewable: YES**

Location:

Department of Biomedical, Dental Sciences and Morphological and Functional Images, University of Messina, Messina, Italy.

Required qualification:

PhD concerning the scientific area of relevance or equivalent qualification obtained abroad or, for the sectors concerned, title of specialization of medical area accompanied by an adequate scientific production.

Required foreign language: English

Topics of the interview:

- Neuroscience research experience in human studies.
- Experience is required in the advanced analysis of the electroencephalographic signal during wakefulness and sleep.
- Experience in advanced analysis of the electromyographic signal.
- Expertise in advanced functional and structural magnetic resonance analysis and in particular on connectivity analysis (resting state, effective connectivity, graph theory-based analysis).
- Ability to program in MathLab environment.
- Statistical analysis skills.
- Good ability to work in a team.

International mobility requested: YES

Countries where the research can be conducted:

European Union, United Kingdom, USA, China.

Recipients of the research grant:

□ junior researcher at the beginning of career (0-4 years) (postgraduate degree)

☑ expert researcher (4-10 years) (Post-Doc)

 \Box highly experienced researcher (> 10 years)



This project has received funding from the USA – Ministry of Defence project Grant Gov ID number GRANT12720142