

# DECRETO RETTORALE

## Decree of the Rector n. 453 of 16/05/2024

Competition for awarding 1 research grant at the University of Udine

### DISCLAIMER:

The official and legally binding call for applications is in Italian only.

This document cannot be used for legal purposes and is only meant to provide information in English on the call for applications (Decree of the Rector n. 453 of 16/05/2024). Please refer to the official call published on: <https://www.uniud.it/it/albo-ufficiale>

Any change and integration will be made available on the above-mentioned web page. Therefore, no personal written communication regarding the examination date and/or competition results shall be provided to applicants.

### Annex 1

Call for applications for the award of 1 grant for the performance of research activities at the University of Udine on the topic "Carbon stocks in the adaptive and acclimative response of plants to climate change: directions for habitat and species conservation" SSD: BIO/04 (principal investigator, Valentino Casolo)

Research grant funded by the resources of the project PRIN 2022 - Prot. n. 20227983W9

### Art. 1

A selection proceeding is hereby announced for the award of 1 research grant at the University of Udine for the performance of the research activity identified in Annex A, which forms an integral and substantial part of this call. The research grant is linked to the research project on which it is based and is subject to the corresponding financial coverage.

The grant may be renewed with the winner in accordance with the provisions of Article 22 of Law no. 240 of 30 December 2010 (in the text prior to Leg. Decree no. 36 of 30 April 2022, converted with amendments by Law no. 79 of 29 June 2022) and the Regulations of the University of Udine for the awarding of research grants issued by Rector's Decree no. 182 of 31 March 2021, in the presence of a positive assessment by the scientific supervisor of the activity carried out by the research fellow, adequate scientific justification and related financial coverage, within the limits set out in Article 3, letters b) and c) below.

The research grant does not entitle the successful candidate to any rights as regards access to University roles.

Any personal communication to candidates relating to this selection will be sent exclusively to the email address indicated in the application form.

## DECRETO RETTORALE

### Art. 2

The activities covered by the research grant referred to in this call for competition and the admission requirements are indicated and described in Annex A. Failure to meet the admission requirements at the time of applying shall result in the **exclusion** of the candidate from the selection process.

Possession of a PhD qualification or equivalent qualification obtained abroad or, for the sectors concerned only, of a medical specialisation qualification accompanied by an adequate scientific production, constitutes a preferential requirement for the awarding of the grant envisaged for this selection, if it has not been mentioned as an admission requirement.

The Selection Board shall assess, for the sole purpose of admission to the competition, the suitability of any qualification obtained abroad, without prejudice to the assessment of the medical specialisation qualification to which Article 38, paragraph 3.1 of Legislative Decree 165/2001, as amended, and the relevant Community regulations apply.

The Board assesses the qualification obtained abroad based on the relevant documentation enclosed with the application to take part in the selection and may exclude the candidate if the submitted documentation does not provide sufficient elements for the assessment.

Candidates are therefore invited to enclose all documentation in their possession relating to their qualifications in order to provide the Board with sufficient elements to assess their position.

Candidates are admitted to the selection process subject to a reservation and their exclusion, for failure to meet the requirements, may be ordered at any time by reasoned decision.

### Art. 3

The research grant referred to in this call cannot be awarded to the following subjects:

- a) Employees of Universities and the entities referred to in Article 22(1) of Law no. 240 of 30 December 2010 (in the text prior to Leg. Decree no. 36 of 30 April 2022, converted with amendments by Law no. 79 of 29 June 2022).
- b) Recipients of previous research grants pursuant to Law no. 240 of 30 December 2010, for the maximum period allowed by the regulations, excluding the period in which the grant was received in conjunction with a PhD, up to the legal duration of the relevant course.
- c) Those who have already been awarded research grants and fixed-term researcher contracts pursuant to Law no. 240 of 30 December 2010 for a total of 12 years, even if not consecutive.
- d) Those who have a degree of kinship or relationship, up to and including the fourth degree, with:
  - The Rector, the Director General or a member of the Board of Directors of the University of Udine.
  - The principal investigator or a professor/researcher belonging to the department or structure of interest where the research grant activity takes place.

The research grant referred to in this call cannot be cumulated with the following:

- a) Awarded scholarships of any kind, except those granted by national or foreign institutions useful for supplementing, by means of stays abroad, the fellow's training or research activities.
- b) Other research grants.

## DECRETO RETTORALE

- c) Employment relationships, even if part-time, without prejudice to the provisions of the regulations for employees of public administrations.

The grant referred to in this call is also incompatible with simultaneous attendance of degree courses, master's degrees, and PhDs with scholarships and medical specialisation, in Italy and abroad.

Persons who have been convicted of a criminal offence resulting in disqualification from holding public office or inability to contract with the public administration as a secondary penalty are not eligible for selection.

### Art. 4

Applicants must submit, in the manner described in Article 5 below, the application to take part in the selection, duly signed in handwritten or digital form. An application without a signature will result in the **exclusion** of the candidate, except in the case of access through the use of the Public Digital Identity System (SPID) in which case the signature will not be necessary.

The application must be uploaded in its entirety (i.e., every page), **otherwise** the applicant will be **excluded** from the selection.

Applicants must enclose the following with their application for participation in the selection, **under penalty of exclusion**:

1. The professional scientific *curriculum vitae* in Italian or English or one of the additional languages, if any, indicated in Annex A, highlighting the candidate's aptitude for carrying out and implementing the research programme.
2. Copy of valid identity document or other identification document. Citizens of non-EU countries must enclose a copy of their passport.
3. Limited to citizens of non-EU states residing or authorised to reside in Italy, a copy of their residence permit or authorisation to reside in Italy.
4. For candidates who cannot provide a self-certification under the conditions set out below, documentation proving possession of the academic qualification required for admission to the selection. Possession of a higher academic qualification does not exempt the candidate from producing such documentation, which, if missing, will result in exclusion:
  - **Candidates who are Italian citizens or citizens of a European Union Member State** must submit a declaration in lieu of certification and, if necessary, a notarial deed regarding the academic qualification needed for admission (indicating the academic qualification, the academic institution awarding the qualification, the year it was awarded and the mark obtained) and the publications and other qualifications held, indicating for each one all the identification details necessary for the Board's assessment. **The application for participation counts as a declaration in lieu of certification of the declared academic qualification.** If the subject matter of the declaration is not clearly identified in terms of its nature, duration, time setting and institution concerned, the selection board will disregard it. The Administration reserves the right to carry out appropriate checks on the truthfulness of the content of the declarations made; in the event of a false declaration, the provisions of Article 76 of Presidential Decree no. 445/2000 and Articles 483, 485, and 486 of the Italian Criminal Code shall apply. The University will not take into account any certificates attached by candidates who are Italian citizens or citizens of a state belonging to the European Union.

## DECRETO RETTORALE

- **Citizens of a non-European Union State** must submit documents and qualifications in Italian or English or one of the additional languages, if any, indicated in Annex A, under penalty of exclusion from the selection or, as the case may be, non-assessment.  
Documents and titles, originally in a different language, must be accompanied by a translation, made by the candidate under his or her responsibility, into Italian or English or any other language indicated in Appendix A. With reference to the dissertation only, the translation may be limited to an extended abstract.
- **Citizens of a non-EU State regularly residing in Italy** may use declarations in lieu of certification only in respect of states, personal qualities or facts that can be certified or attested to by Italian public bodies, without prejudice to the special provisions contained in the laws and regulations governing immigration and the status of foreigners.
- **Citizens of non-EU states authorised to reside in Italy** may use the aforementioned declarations in cases where they are produced pursuant to international conventions between Italy and the declarant's country of origin.

Applicants may also enclose with their application for assessment purposes their publications and any other qualification deemed useful to prove their qualification in relation to the research programme described in Annex A and to certify any research activity carried out in public and/or private entities (with the indication of the starting date and duration). The submission modalities are similar to those indicated in point 4 of the previous paragraph.

Only the qualifications possessed by the candidate on the date of submission of the application for selection and presented in accordance with Article 5 will be assessed.

Any exclusion from the selection procedure due to lack of eligibility requirements, absence of mandatory documents, failure to sign the application to take part in the selection or submission of the application in a manner other than that provided for in this call will be communicated to the parties concerned exclusively by email to the email address indicated in the application to take part in the selection.

### Art. 5

Registration for this selection will begin on May 30, 2024 at 2:00 pm (Italian time) and will end on June 17, 2024 at 2:00 pm (Italian time).

The application to take part in the selection must be completed, under penalty of exclusion, using the appropriate online procedure, available at <https://pica.cineca.it/>.

For those who do not already have a user account, the procedure involves a registration phase for the applicant, and a subsequent phase for completing the application online.

Once completed, the application must be signed in the manner (handwritten signature, with attached identity document, or digital signature) described in the online procedure, under penalty of exclusion from the selection. The application does not have to be signed if the above-mentioned online procedure is accessed using the Sistema Pubblico di Identità Digitale (SPID - Digital ID Public System). In the case of a handwritten signature, the applicant must upload the application to the system in its entirety. The information entered in the application form shall constitute a declaration in lieu of certification and affidavit, pursuant to Articles 46 and 47 of Presidential Decree no. 445/2000.

## DECRETO RETTORALE

The qualifications referred to in Article 4 must be attached to the application in .pdf format. Individual files, in .pdf format, may not exceed 30MB in size.

It is not permitted to submit attachments to the application in the form of links to files residing on "online storage/file sharing" services or web pages. Reference may not be made to documents or publications submitted to this or other administrations or documents attached to the application for participation in another selection procedure.

The application for participation in the selection is automatically sent to the University of Udine with the final closure of the online procedure.

The University Administration:

- accepts no liability if it is impossible to read the submitted documentation in electronic format due to damaged files;
- does not accept or take into consideration qualifications or documents received in paper form or by any other means than those specified in this article.

The Administration accepts no liability in the event of incorrect indication by the candidate of his/her email address or in the event of failure or delay in communicating a change in the email address indicated in the application, nor for any digital transmission errors attributable to third parties, unforeseeable circumstances or force majeure.

Applicants are advised not to wait until the last few days before the deadline to submit their application. The University accepts no liability for any malfunctions due to technical problems and/or overloading of the communication line and/or application systems.

### Art. 6

The selection test takes place according to the modalities set out in Annex A.

The test will aim to ascertain the candidates' preparation, experience and research aptitude. It will consist of an assessment of the professional scientific curriculum, publications and titles submitted, and an interview, where applicable.

Failure of the candidate to attend the interview will be considered as withdrawal from the selection, whatever the cause.

Candidates who intend to avail themselves of the benefits provided for by Article 20 of Law no. 104 of 1992 (need for assistance, possible use of additional time for the performance of examination tests) in relation to their disability situation, must declare this and accompany the application with appropriate medical certification in order to allow the Administration to prepare in time the means and tools to guarantee the statutory benefits; failure to submit the medical certification exempts the Administration from any obligation in this regard.

## DECRETO RETTORALE

### Art. 7

The Competition Selection Board is identified in Annex A to this call, of which it forms an integral part. At its first meeting, the Board appoints the Chairperson and the Secretary taking the minutes, and establishes the criteria and procedures for assessing the qualifications and the interview, where applicable.

The results of the assessment must be made known to the parties concerned at the interview, where provided for.

The Board can attribute to the selection a total number of 100 points (one hundred hundredths). At the end of its work, the Board formulates the overall merit list based on the total marks obtained by each candidate and draws up the minutes of the competition operations.

The grant may be awarded, subject to the ranking list, to candidates who have obtained a minimum overall mark of 70/100 (seventy hundredths).

The Board's judgement is final on the merits.

The ranking list will be made public exclusively by publication on the University's official notice board; the outcome of the assessment will not be the subject of personal communication to candidates.

Those who do not declare their acceptance of the research grant and do not present themselves at the structure where the research activities are to be carried out to sign the contract by the deadline communicated by the same to the email address indicated by the candidate in the application shall forfeit their right to the research grant, except for health reasons or reasons of force majeure duly documented and promptly notified.

Candidates holding qualifications obtained abroad, if successful, must submit the following, if not already attached to the application:

- **For degrees issued by a country that is a party to the Lisbon Convention (<https://www.enic-naric.net/>), the following documentation:**
  - *Supplement* Diploma or similar certificate in English issued by the competent University.
  - "Certificate of Verification of Foreign Qualification - CIMEA" issued by CIMEA (Centre for Information on Academic Mobility and Equivalences) via the "*diplome*" service at <https://cimea.diplome.eu/udine/#/auth/login>
- **For degrees issued by a country not party to the Lisbon Convention (<https://www.enic-naric.net/>), one of the following options:**
  - Declaration of the on-site value of the qualification held and the certificate relating to the qualification with examinations and grades. The certificate in a language other than Italian or English must be accompanied by an official translation into one of those languages (certified by the competent diplomatic-consular authority or sworn at a court in Italy).
  - "Certificate of Comparability and Verification of Foreign Qualifications - CIMEA" issued by CIMEA (Centre for Information on Academic Mobility and Equivalences) via the "*diplome*" service at <https://cimea.diplome.eu/udine/#/auth/login>



## DECRETO RETTORALE

If the aforementioned documentation is not available at the time of the conclusion of the contract, the candidate must prove that he or she has requested it and submit it as soon as possible; if it is not submitted within six months of the start of the contract, the candidate will forfeit the contract and will be required to repay any related sums received to date.

### Art. 8

The research activity cannot be started before the contract defining the terms of the collaboration is signed.

The activity covered by the research grant must have the following characteristics:

- a) Be carried out in the context of the research programme covered by the grant and not be a purely technical support to the same.
- b) Close connection with the implementation of the research programme that is the subject of the relationship with the winner.
- c) Having a continuous and in any case temporally defined character, not merely occasional, and in coordination with the overall activity of the University.
- d) Performance in a condition of autonomy, within the sole limits of the programme prepared by the Head of the same, without predetermined working hours.

The research fellow is obliged to submit a detailed written report on the work carried out and the results achieved, together with the opinion of the scientific supervisor, to the reference structure within the deadlines laid down in the contract. The research fellow will also have to submit interim reports and time sheets if requested by the reference structure and/or the scientific supervisor.

The research fellow is bound to strict confidentiality regarding the data and information to which he/she becomes privy in the course of his/her research activity. At the request of the scientific coordinator, he/she will be required to sign an appropriate confidentiality agreement.

The industrial property rights to the results obtained by the research fellow in the performance of the research activity belong exclusively to the University, without prejudice to the moral right of the research fellow to be recognised as an author or inventor.

The University reserves the right to revoke this call for competition for reasons of public interest, should the research project and/or the financial backing on which the research grant is based cease to exist. Should these causes arise after the contract has been signed, the University may terminate the contract without notice.

## DECRETO RETTORALE

### Art. 9

The following apply to the grant under this call:

- On tax matters, the provisions of Article 4 of Law no. 476 of 13 August 1984, as amended.
- On social security matters, the provisions of Article 2(26) et seq. of Law no. 335 of 8 August 1995, as amended.
- On compulsory maternity leave, the provisions of the Ministerial Decree of 12 July 2007.
- On sick leave, the provisions of Article 1(788) of Law No 296 of 27 December 2006, as amended.

During the period of compulsory maternity leave, the allowance paid by INPS pursuant to Article 5 of the Ministerial Decree of 12 July 2007 is supplemented by the University up to the full amount of the research grant.

The grant will be paid in monthly instalments in arrears.

### Art. 10

The data collected as part of the procedure referred to in Article 5 is necessary for the proper management of the selection procedure, for the possible subsequent management of the research grant and purposes related to the management of the services provided by the University. The University of Udine is the Data Controller. At any time, the data subject may request access, rectification and, compatibly with the institutional purposes of the University, cancellation and restriction of processing or may object to the processing of his/her data. He/she can always lodge a complaint with the Italian Data Protection Authority. The full information is available on the University of Udine website in the "Privacy" section accessible from the home page [www.uniud.it](http://www.uniud.it) Direct Link: <https://www.uniud.it/it/it/pagine-speciali/guida/privacy>

### Art. 11

For any matters not expressly mentioned in this call, reference is made to the relevant regulations in force cited in the introduction and to the "Internal regulations for the award of research grants pursuant to Law no. 240 of 30 December 2010" of the University of Udine issued by Rector's Decree no. 182 of 31 March 2021.

### Art. 12

The official in charge of the proceeding is Dr. Sandra Salvador, Head of the Research Services Area of the University of Udine.

The reference office at the University of Udine is the "Area Servizi per la Ricerca - Ufficio Formazione per la Ricerca", Via Mantica 31 - 33100 Udine.

To request information on the call, please complete the following form available on the University of Udine website: [https://helpdesk.uniud.it/SubmitSR.jsp?type=req&accountId=universityofudine&populateSR\\_id=42105](https://helpdesk.uniud.it/SubmitSR.jsp?type=req&accountId=universityofudine&populateSR_id=42105)



## DECRETO RETTORALE

### Annex A

#### Responsabile scientifico della ricerca / Principal investigator:

Nome e cognome / Name and surname: Valentino Casolo  
Qualifica / Position: Ricercatore Universitario / Researcher  
Dipartimento / Department: Scienze agroalimentari, ambientali e animali / Agricultural, Food, Environmental and Animal Sciences  
Area MUR / Research field: 05 – Scienze biologiche  
Settore concorsuale e Settore scientifico disciplinare / Scientific sector: 05/A2; BIO/04 – Fisiologia vegetale

#### Titolo dell'assegnio di ricerca / Topic of the research fellowship "assegnio di ricerca":

*I bandi sono consultabili dal sito dell'Ateneo, del MUR e di Euraxess / The calls are available on the University, MUR and Euraxess websites*

#### Testo in italiano:

Le riserve di carbonio nella risposta adattativa e acclimatativa delle piante ai cambiamenti climatici: indicazioni per la conservazione degli habitat e delle specie.

#### Text in English:

Carbon stocks in the adaptive and acclimative response of plants to climate change: directions for habitat and species conservation.

#### Obiettivi previsti e risultati attesi del programma di ricerca in cui si colloca l'attività dell'assegnista di ricerca / Foreseen objectives and results of the research programme performed by the research fellow "assegnista di ricerca":

*I bandi sono consultabili dal sito dell'Ateneo, del MUR e di Euraxess / The calls are available on the University, MUR and Euraxess websites*

#### Testo in italiano:

Le comunità vegetali sottostanno a continue modifiche che spesso sono dovute alle pressioni antropiche e ai cambiamenti climatici. Le variazioni della comunità vegetale possono essere in termini di numerosità degli individui fino alla completa sostituzione della vegetazione. Alcuni ecosistemi, quali quelli montano-alpini, sono particolarmente sensibili a queste sostituzioni con riduzione della distribuzione di alcune comunità vegetali e potenziale estinzione sia di specie, sia di intere comunità.

Le piante rispondono ai cambiamenti per mezzo di risposte adattative e acclimatative. Nel primo caso si tratta di modifiche morfofisiologiche avvenute lentamente per mutazioni genetiche o, più velocemente, per mezzo di meccanismi epigenetici che hanno condotto a una fissazione del carattere nel DNA della pianta. Nel secondo caso si intendono, invece, quelle strategie che un individuo può mettere in atto nell'arco della sua vita, a volte in tempi brevissimi, per rispondere alle condizioni ecologiche in cui vive. In questo senso la crescita complessiva di una pianta in un certo ambiente può essere considerata una risposta acclimatativa. Ad esempio individui della stessa specie che crescono in condizioni ottimali o al limite della sopravvivenza, presenteranno dimensioni diverse, diversa struttura dei tessuti e modificazioni nel metabolismo. In ogni caso, la condizione finale della pianta cresce in un certo contesto deriverà dal bilancio del carbonio acquisito con la fotosintesi e quello utilizzato per il metabolismo (respirazione), investito per la crescita e immagazzinato sotto forma di riserve.

Le riserve di carbonio della pianta, sotto forma di carboidrati non-strutturali (CNS), sono fondamentali per la germinazione, per la ripresa vegetativa stagionale nelle piante perenni e nella risposta agli stress ambientali.

## DECRETO RETTORALE

Questo progetto si propone di indagare il ruolo delle riserve di carbonio nelle piante per la sopravvivenza di un certo habitat e comprendere quale peso relativo possano avere la plasticità genotipica e quella fenotipica nella sopravvivenza di una specie target.

La specie oggetto di questa ricerca è l'abete bianco (*Abies alba* Mill.) e le formazioni forestali dove cresce che per struttura, diffusione, età e posizione ecologica si presentano come un sistema modello per questo studio. Sessanta popolamenti di abete bianco distribuiti in tutta Italia sono stati scelti per indagini genetiche e dendrocronologiche alle quali saranno associate le misure dei CNS. Il disegno sperimentale applicherà una genotipizzazione individuale mirata e una dendro-fenotipizzazione approfondita attraverso l'analisi dei tratti anatomici del legno e del contenuto dei CNS. In particolare, il ricercatore sarà impiegato nella raccolta di materiale vegetale (aghi, rami e legno di abete) lungo le stazioni italiane, nella manipolazione del materiale vegetale e nella misurazione dei CNS e nell'analisi dei dati biochimici. Inoltre, si applicherà anche alla metanalisi dell'intero set di dati ottenuti anche dalla dendrocronologia e dalla genotipizzazione. Alla fine sarà ottenuto un sottoinsieme di popolazioni locali caratterizzate da informazioni fenotipiche e genotipiche senza precedenti, mediate a livello di singolo albero per popolazioni che affrontano un'ampia gamma di fattori di stress climatico. Una serie di approcci statistici rivelerà infine la firma genomica alla base sia di tratti fenotipici complessi con valore adattativo sia di risposte a singoli eventi che possono consentire agli alberi di resistere alle limitazioni climatiche. Con questo progetto si vogliono ottenere risposte scientifiche sulle interazioni fondamentali tra il genotipo e il clima in chiave retrospettiva e futura. I risultati del progetto vogliono anche promuovere la conservazione dei popolamenti forestali e delle risorse genetiche, fornendo informazioni utili su popolazioni e genotipi adattati/resistenti ai fattori di stress climatico. Tali conoscenze potranno produrre indicatori che saranno alla base di raccomandazioni e linee guida per le parti interessate, i responsabili politici e i gestori, oltre a contribuire alla selezione delle migliori opzioni di gestione per affrontare le sfide climatiche future.

Questo tipo di studi è centrale nella comprensione della risposta delle piante e delle comunità vegetali agli stress abiotici. Per tale motivo il progetto si configura come una piattaforma utile per il trasferimento delle strategie e delle metodologie di ricerca ad altre specie e comunità vegetali sottoposte agli effetti dei cambiamenti climatici e alle minacce antropiche che determinano mutamenti nei fattori ecologici. In particolare potrebbe essere di grande importanza per promuovere azioni di conservazione e ripristino per mezzo della scelta dei genotipi in riferimento alle caratteristiche ecologiche della zona di intervento.

### Text in English:

Plant communities undergo continuous changes that are often due to anthropogenic pressures and climate change. Changes in the plant community can be in terms of numbers of individuals up to complete replacement of vegetation. Some ecosystems, such as mountain-alpine ecosystems, are particularly sensitive to these replacements with reduction in the distribution of some plant communities and potential extinction of both species and entire communities.

Plants respond to changes by adaptive and acclimative responses. In the first case, these are morphophysiological changes that have occurred slowly through genetic mutations or, more rapidly, through epigenetic mechanisms that have led to character fixation in the plant's DNA. In the second case, on the other hand, we refer to those strategies that an individual can put in place over its lifetime, sometimes very quickly, to respond to the ecological conditions where it lives. In this sense, the overall growth of a plant in a certain environment can be considered an acclimative response. For example, individuals of the same species growing under optimal or limiting conditions for survival will exhibit different sizes, different tissue structure, and changes in metabolism. In any case, the final condition of plant growth in a certain context will result from the balance of carbon acquired by photosynthesis and that used for metabolism (respiration), invested for growth, and stored as reserves. The plant's carbon stores, in the form of non-structural carbohydrates (NSC), are critical for germination, seasonal vegetative recovery in perennial plants, and in the response to environmental stresses.

## DECRETO RETTORALE

The target species of this research is white spruce (*Abies alba* Mill.) and the forests where it grows, which present themselves as a model system for this study due to their structure, distribution, age and ecological position. Sixty white spruce stands distributed throughout Italy have been selected for genetic and dendrochronological surveys to which NSC measurements will be associated. The experimental design will apply an individual targeted genotyping and in-depth dendro-phenotyping by the analysis of wood anatomical traits and NSC content. In particular, the research fellow will be employed in the collection of plant material (i.e., fir needles, branches and wood) along Italian stations, plant material handling and NSC measurement and biochemical data analysis. Further he will apply also to metanalysis of whole dataset obtained also from dendrochronology and genotyping. We will end up with a subset of focal populations characterized by unparalleled phenotypic and genotypic information merged at the individual tree level for populations facing a wide range of climatic stressors. An array of statistical approaches will finally reveal the genomic signature underlying both complex phenotypic traits with adaptive function and responses to single events that can permit trees to withstand climatic constraints. With this project we will answer key scientific questions about the retrospective and future interactions between the genotype and climate. The project results will also promote the conservation of forest stands and genetic resources providing useful information on populations and genotypes adapted/resilient to climatic stressors. Such knowledge will produce indicators that will stem in recommendations and guidelines for stakeholders, policy makers, and managers, as well as help selecting the best management options to cope with future climate challenges.

This type of studies is pivotal to understanding the response of plants and plant communities to abiotic stresses. For this reason, the project is a useful platform for the transfer of research strategies and methodologies to other plant species and communities subjected to the effects of climate change and anthropogenic threats that result in changes in ecological factors. In particular, it could be of great importance in promoting conservation and restoration actions by means of genotype selection with reference to the ecological characteristics of the area of intervention.

### **Struttura dell'Università di Udine presso la quale verrà sviluppata l'attività di ricerca / Department or other structure of the University of Udine where research activities will be carried out:**

Dipartimento di Scienze Agroalimentari, Ambientali e Animali (DI4A). / Department of Agricultural, Food, Environmental and Animal Sciences.

### **Importo dell'assegno di ricerca (al lordo oneri carico assegnista) / Total grant gross for the research fellowship:**

€ 21.885,00

### **Durata dell'assegno di ricerca / Duration of the research fellowship "assegno di ricerca":**

12 mesi / months

### **Finanziamento / Financed by:**

La copertura finanziaria graverà sul progetto PRIN 2022 – “REACT - Back to the future: REtrospective and prospective dendrogenomic insights in silver fir Adaptation to face the ClimaTe crisis”; Prot. n. 20227983W9. Decreto di finanziamento n. 1048 del 14/07/2023 - Settore LS9. Codice CUP G53D23003890006. Ministero dell'Università e della Ricerca (Finanziato dall'Unione Europea, NextGenerationEU - M4C2 Inv. 1.1). Codice U-GOV: PRIN2022\_CASOLO.

## DECRETO RETTORALE

### Requisiti di ammissione / Minimum qualifications necessary:

Possesso di un diploma di laurea vecchio ordinamento (ante decreto 3 novembre 1999 n. 509) o di laurea specialistica/magistrale (ex decreto 3 novembre 1999 n. 509 e decreto 22 ottobre 2004 n. 270) o titolo equivalente conseguito all'estero. / Possession of a University degree obtained before Decree n. 509 of 3 November 1999 or specialistic/Master's degree (post decree n. 509 of 3 November 1999 and decree n. 270 of 22 October 2004) or equivalent degree obtained abroad.

### Modalità di presentazione della documentazione oggetto di valutazione / Arrangements for the submission of documents:

La modalità di presentazione della documentazione oggetto di valutazione è specificata all'art. 4 del bando. / The way of presenting the documentation under evaluation is specified in art. 4 of the present notice.

Ai fini valutativi, i candidati potranno presentare le pubblicazioni e ogni altro titolo ritenuto utile a comprovare la propria qualificazione in relazione al programma di ricerca descritto nell'Allegato A, nelle seguenti lingue: / For evaluation purposes, candidates may present publications and any other qualifications deemed useful to demonstrate their qualification in relation to the research program described in Attachment A, in the following languages:

- Italiano / Italian
- Inglese / English

### Procedura selettiva / Competition procedure:

Valutazione per titoli e colloquio. / Evaluation of titles and oral exam.

I risultati della valutazione dei titoli saranno resi noti agli interessati nel corso del colloquio. / The evaluation of the qualifications will be disclosed to candidates during the interview.

Calendario del colloquio / Calendar of the oral exam	Modalità / Modality	In presenza / On site
	Data / Date	24 giugno / June 2024
	Ora / Time	10:30 / 10:30 am (Italian time)
	Luogo / Place	Saletta riunioni al piano seminterrato dello stabile COT7 – Laboratori di Biologia Vegetale, Dipartimento di Scienze Agroalimentari, Ambientali e Animali / Meeting room in the basement of the COT7 building – Plant Biology Laboratories, Department of Agricultural, Food, Environmental and Animal Sciences via delle Scienze, 91 – Udine

Per sostenere il colloquio i candidati devono esibire un valido documento di riconoscimento. / Candidates must come to the interview with a valid identity document.

Eventuali variazioni saranno rese note esclusivamente mediante pubblicazione all'albo ufficiale on line dell'Ateneo / Any change will be made public solely through publication on the University web site [http://web.uniud.it/ateneo/normativa/albo\\_ufficiale](http://web.uniud.it/ateneo/normativa/albo_ufficiale)

## DECRETO RETTORALE

### Commissione giudicatrice / Examining Board:

Nome e Cognome	Qualifica	SSD	Università
<b>Membri Effettivi / Permanent members</b>			
Enrico Braidot	PA	BIO/04	Università degli Studi di Udine
Giai Petit	PA	AGR/05	Università degli Studi di Padova
Elisa Petrusa	RU	BIO/04	Università degli Studi di Udine
<b>Membri Supplenti / Temporary members</b>			
Guido Fellet	PA	AGR/02	Università degli Studi di Udine
Emanuele De Paoli	PA	AGR/07	Università degli Studi di Udine