



Instituto de Ciências, Tecnologias e Agroambiente da Universidade do Porto

Reference: ICETA 2021-07

Área científica: Biological Sciences

Sub área científica: Zooarcheogenetics

1. In a meeting the Board of Directors of ICETA, has decided to open an international call for PhD holder Researchers, under a work contract for a non-fixed term. This announcement is intended to 1 (one) research position (**Reference ICETA 2021-07**) on the project WOOF - Tracing the origins and evolutionary paths of the Iberian and the Maghreb Dog with reference PTDC/HAR-ARQ/29545/2017, supported by national funds by FCT / MCTES and co-supported by Fundo Europeu de Desenvolvimento Regional (FEDER) throughout COMPETE - POCI – Programa Operacional Competividade e Internacionalização (POCI-01-0145-FEDER-029545), in the area of Biological Sciences and sub-area of Zooarcheogenetics,, aiming at the development of ancient DNA analysis of archaeological remains of dogs and wolves from Iberian Peninsula and North Africa.

The candidate will work in collaboration with the other team members to achieve the objectives of the project. Iberian domestic animal breeds show a vast range of morphological and genetic variation. This is due to strong artificial selection, however what fraction results from local domestication and/or post-domestication introgression from wild ancestors has not been investigated. The major aim of the WOOF project is to perform a phylochronological study, by using cutting-edge molecular biology methods, to capture ancestral variation and to unveil the origins and modes of improvement of Iberian and North African dogs. A multidisciplinary approach – merging zooarchaeology and genomics – will be employed, which is critical to capture the temporal and geographical dimensions of the history that shaped the genetic composition of dogs.

2. Applicable Legislation

Decree-Law no. 57/2016 of August 29th, amended by Law 57/2017 and Regulatory Decree No. 11- A / 2017 which approved the doctorate hiring regime destined to stimulate scientific and technological employment for all knowledge areas (RJEC); Portuguese Labour Code, approved by Law 7/2009 of February 12, in its actual form.

3. Pursuant to article 13 of RJEC, the tender selection panel is be formed by:

President: Ana Elisabete Pires

Member: Catarina Ginja

Member: Cleia Detry

Member: Marina de Araújo Igreja

Member: Simon Davis

4. The workplace shall be at Centro de Investigação em Biodiversidade e Recursos Genéticos (CIBIO) - Faculdade de Ciências da Universidade do Porto, Campus Agrário de Vairão, (Portugal) and Archaeological Research Laboratory (Stockholm University, Sweden) under the supervision of Ana Elisabete Pires (PhD) (<https://cibio.up.pt/people/details/piresae>) and Catarina Ginja (PhD) (<https://cibio.up.pt/people/details/cginja>)

5. The gross monthly salary entitle is stipulated in clause 1 a) of article 15 of the Regulatory Decree No. 57/2016, of August 29th, amended by the law nº 57/2017 of July 29th, corresponding to level 33 of the Consolidated Table of Allowances, as approved by Government Order No. 1553-C/2008, of December 31st, being 2.134,73 Euros.

6. Application can be submitted by any national, foreign and stateless candidate(s) holding a doctorate degree in Biological Sciences and related area and a scientific and professional curriculum whose profile is suited for the activity described (item 1 and item 7).

In case the doctorate degree was awarded by a foreign higher education institution, it must comply with the provisions of Decree-Law no. 341/2007 of October 12th, and all formalities established therein must be complied with at the application deadline.

7. The tender admission general requirements are those defined in the previous point 6, and additional specific requirements are: 1) competences in Molecular Biology; 2) competences in the collection and preservation of biological/historical/archaeological samples; 3) expertise in the laboratorial analysis of skeletal and archaeological remains; 4) expertise in the bioinformatic analysis of ancient DNA genomic data; 5) experience in the global analysis of archaeological, zoological, molecular and historic data; 6) experience in the supervision of post graduate students; 7) availability to spend long periods abroad, namely in the aDNA laboratory of the Stockholm University, Sweden.

The candidate must have research experience in genetics/genomics, including laboratory skills in DNA extraction, sequencing and genotyping of molecular markers. It is desirable that the candidate has experience in ancient DNA (aDNA) methodologies (or in the genetic analysis of degraded specimens) and in preparation of genomic libraries for next-generation sequencing. Proven competences in genomic data analysis e bioinformatics are essential. The candidate is expected to be able to work independently, to show initiative, perseverance and to have excellent verbal and written communication skills. Excellent speaking and written knowledge of English is required. A proven publication track record is required.

The selected candidate will collaborate with zooarchaeologists to collect *Canis* specimens for ancient aDNA analysis. The candidate will be responsible for extracting aDNA from archaeological specimens (i.e. bones and teeth), for preparing genomic libraries for next-generation shotgun and targeted sequencing. The candidate will have an active role in the statistical analysis of the genetic data collected and in drafting manuscripts for publication. The aDNA analyses will be conducted in dedicated facilities in collaboration with foreign partners (e.g. Stockholm University, Sweden), thus the candidate must be available to travel and live abroad for periods. The candidate will participate in informal meetings among project partners. Participation in national and international seminars is also expected.

8. Pursuant to article 5 of RJEC, the selection is to be made based on the evaluation of the scientific and curricular career of the candidate.

9. Scientific and curricular career evaluation focuses on relevance, quality and up-to-datedness:

a) of scientific, technological, cultural or artistic production in the last five years, considered most relevant by the candidate;

b) of research activities, fundamental or applied science, developed in the last five years, considered of higher impact by the candidate;

c) of knowledge extension and dissemination activities developed in the last five years, namely under the scope of the promotion of culture and scientific practices, deemed most relevant by the candidate.

d) of activities of science management, technology and innovation programs, or of experience in observing and monitoring the scientific and technological system or higher education, in Portugal or abroad.

10. The five-year period mentioned above can be extended by the panel, if requested by the candidate, whenever the suspension of scientific activities is reasoned by socially protected grounds like paternity leave, long-term serious illness, and other legal situations of unavailability to work.

11. Evaluation criteria are the following:

The evaluation of the CV of the candidates, in particular the scientific merit and research experience will take into consideration the elements presented for the last five years of activity falling within the scope of the specific areas of the tender (see Point 1) and will be performed according to the following criteria:

11.1 Integrated assessment of the curriculum trajectory of the candidate, based on an overview of their scientific merits, namely:

I. overall scientific coherence of the CV – 15%

II. diversity and quality of scientific indicators, including relevant published peer-reviewed articles and abstracts in the specific areas of announce (see point 1 and point 7) - 25%

III. participation in research projects and students supervision - 10%

11.2 Relevant experience, proved in CV, in:

I. Laboratorial analysis of ancient. Expertise in methods such as extracting aDNA from archaeological specimens (i.e. bones and teeth), preparation of genomic libraries for next-generation shotgun and targeted sequencing – 25%

II. Bioinformatic analysis of animals genomic data such as statistical analysis of the genomic data collected and drafting manuscripts for publication – 25%

12. In the case of admitted candidates whose evaluation does not differ more than 10% from that obtained by the best positioned candidate, the jury will interview these candidates. This will be aimed at obtaining clarifications and explanations about the curricular elements and additional information as well as to evaluate the attitude profile and motivation of the candidate.

The final score of each jury member is obtained by the following assessment: 90% scientific and curricular career evaluation and 10% interview.

13. Candidate final classification system shall be given based on a scale 0 to 100.

14. The panel shall deliberate by means of roll-call vote justified under adopted and disclosed selection criteria, with no abstentions allowed.

15. Minutes of panel meetings shall be executed and include a summary of all occurrences of said meeting, as well as of all votes casted by the members and respective reasoning, and shall be provided to candidates whenever required.

16. After selection criteria application, the panel shall prepare a sorted list of approved candidates and respective classification.

17. Panel's final decision shall be validated by the leader of the institution, who is also in charge of deciding about the hiring.

18. Application formalization:

18.1. The applications are formalized at the electronic address <http://www.cibio.pt> with following documents in a digital form, in PDF format:

i) Curriculum vitae

ii) Motivational Letter

- iii) Qualifications Certificate
- iv) Other relevant documentation

18.2. The application period is from **19/03/2021 to 01/04/2021**.

19. All candidates who formalize their applications in an improper way or fail to prove the requirements imposed by this tender are excluded from admission. In case of doubt, the panel is entitled to request any candidate to present further documentation supporting their statements.

20. False statements provided by the candidates shall be punished by law.

21. Both admitted and excluded candidate list and final classification list shall be published at the address of ICETA (Praça Coronel Pacheco nº 15-6º andar, Porto), in the website of the Institute and the selected candidate shall be notified by email.

22. Preliminary Hearing and Final Decision Deadline: After publication, all candidates have 10 working days to respond. Panel's final decisions are pronounced within a period of 90 working days, from response period deadline.

23. This tender is exclusively destined to fill this specify position and can be terminated at any time until approval of final candidate list, expiring with the respective occupation of said position.

24. Non-discrimination and equal access policy: ICETA actively promotes a non-discrimination and equal access policy, wherefore no candidate can be privileged, benefited, impaired or deprived of any rights whatsoever, or be exempt of any duties based on their ancestry, age, sex, sexual preference, marital status, family and economic conditions, instruction, origin or social conditions, genetic heritage, reduced work capacity, disability, chronic illness, nationality, ethnic origin or race, origin territory, language, religion, political or ideological convictions and union membership.

25. The panel has approved this announcement in meeting held on 17/03/2021.

26. According to Decree-Law no. 29/2001 of 3 February, disabled candidates shall be preferred in a situation of equal classification, and said preference supersedes any legal preferences. Candidates must declare, on their honor, their respective disability degree, type of disability and communication/expression means to be used during selection period on their application form, under the regulations above.