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Plant.ID PhD Fellowship 13. Bar-HRM traceability of toxic species in food and medicine, Aristotle University of Thessaloniki- Centre for Research and Technology – Hellas (CERTH)/Institute of Applied Biosciences (INAB)

The Centre for Research & Technology - Hellas, announces an opening for a fully funded PhD fellowship under the Plant.ID Horizon2020 - Marie Skłodowska-Curie Action - Innovative Training Network - European Training Network, starting April 2018. The PhD Degree will be awarded by the Aristotle University of Thessaloniki.

Plant.ID is recruiting 15 PhD fellows

The EU H2020-ITN-ETN project Plant.ID on molecular identification of plants is a European training network aimed at providing 15 PhD fellows across nine European host institutions with excellent training through a network of leading academic experts, museums, governmental and industry partners in the field, using an intensive program with network-wide training events, intra-network supervision and secondments.

Project description

Illegal collection and trade poses a serious threat to native plant species that are edible or of pharmaceutical or commercial interest. Species of restricted distribution, especially the endemic ones, are affected disproportionately and require special conservation measures. The same applies to natural hybrids, due to their unique genetic constitution and importance as distinct taxa. In addition to the above, substitution of wild species, due to misidentification, can lead to severe adverse reactions. Among others we will focus in plants belong to the Solanaceae, Apiaceae, Orchidaceae, Euphorbiaceae, and Adoxaceae families. Barcoding is an important tool towards the solution for the above issues. Through sequencing of barcoding regions and metabarcoding techniques, specific barcoding markers will be developed to be used either with PCR and/or with the High Resolution Melting Analysis for species-specific identification. Additionally, this approach will be tested at the genus and family level with specific genera most at risk by trade today. **Objective:** Species level identification of plants edible, poisonous, allergenic and pharmaceuticals as well as their products, independent of state, using barcoding, Bar-HRM or metabarcoding techniques. Supervisor: Drouzas Andreas, Aristotle University of Thessaloniki. Co-supervisor. Madesis Panagiotis, CERTH/INEB. Advisor Hugo de Boer, University of Oslo. Planned secondments to the University of Oslo, Norway.

Who are we looking for?

Marie Curie Training Networks offer a unique opportunity to get cutting-edge training in a multidisciplinary environment with a focus on academic and personal



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development of the PhD fellows. The supervisors in the network each provide specific competences and as part of the network you develop your skills and carry out research both independently and as part of a network of 15 PhD fellows. The consortium ensures cross-pollination and exchange of ideas through network-wide training events, summer schools and intersectoral secondments. As a PhD fellow in this particular PhD within the Plant.ID network, you need to have a master degree (or equivalent postgraduate diploma) in a relevant field, good social skills, be willing to conduct the planned secondments and importantly be innovative and goal-oriented. Specific requirements for areas of previous degrees, planned secondments, and other expectations related to individual positions are listed in the detailed posting of each position. **All candidates must be fluent in spoken and written English.**

Job conditions

The PhD student will be appointed under an employment contract with a competitive salary and mobility allowance at the host institution. **The fellow is expected to start in April 2018.** Additional funding for research and participation in courses, workshops, conferences, etc. is ensured. **PhD 13 will be enrolled in a 3-year doctoral program at Aristotle University of Thessaloniki.**

Job description

Your key tasks as a PhD fellow in Plant.ID are:

- Manage and carry through your research project
- Take PhD courses within the Plant.ID network
- Write scientific articles and your PhD thesis
- Participate in international congresses and Plant.ID network meetings
- Stay at a research institution abroad for the secondment(s)
- Teach and disseminate your research

EU eligibility criteria for candidates

The applicant may be of any nationality but in order to be eligible for the positions the following criteria applies to all applicants:

- The applicant shall at the time of recruitment be eligible as an Early Stage Researcher (ESR) by being in the first four years of his/her research career and not have been awarded a doctoral degree.
- The applicant must not have resided or carried out his/her main activity in the country of the host institute for more than 12 months in the 3 years immediately prior to the recruitment.

Plant.ID is recruiting 15 PhD students simultaneously and interested candidates are encouraged to apply for multiple projects within the network. Read more about the 15 individual PhD projects on www.plantid.uio.no. The following projects are included:



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- PhD 1 - Polyploid phylogenetics under the multi-species coalescent - University of Gothenburg
- PhD 2 - Taxon identification and multispecies coalescent biodiversity assessments - University of Oslo
- PhD 3 - Euphrasia: species delimitation in mega-diverse hemi-parasites - University of Copenhagen
- PhD 4 - Shotgun sequencing for comparative diet analysis in capercaillie fowl - University of Copenhagen
- PhD 5 - DNA barcoding and metabarcoding of herbal products for authentication - University of Oslo
- PhD 6 - Metabarcoding of aquatic flora for fresh water quality monitoring - BaseClear, Degree Awarding University of Leiden
- PhD 7 - Hayfever and software-automated pollen metabarcoding - Naturalis Biodiversity Center, Degree Awarding University of Oslo
- PhD 8 - Paleogenomic annotation of historical Cinchona bark samples across time and space - University of Copenhagen
- PhD 9 - Genomic barcoding of the succulent plant genus Aloe in trade - Royal Botanic Gardens Kew, Degree Awarding University of Copenhagen
- PhD 10 - Orchid targets: Genomic barcoding to identify and trace traded orchids - University of Oslo
- PhD 11 - Is mutational meltdown a threat in the mega diverse genus Begonia? - Royal Botanic Gardens Edinburgh, Degree Awarding University of Edinburgh
- PhD 12 - Genomic barcoding to trace and identify illegally logged African trees - Botanic Garden Meise, Degree Awarding KU Leuven
- PhD 13 - Bar-HRM traceability of toxic and pharmaceutical species in food and medicine - Centre for Research & Technology - Hellas, Degree Awarding Aristotle University of Thessaloniki
- PhD 14 - Species, a taxonomic category distinct from the lineage concept - University of Gothenburg
- PhD 15 - Logging forensics: mining ebony wood collections as references - Naturalis Biodiversity Center, Degree Awarding University of Leiden

Application procedure

All positions are announced on the Plant.ID website (www.plantid.uio.no), EURAXESS. Individual projects are announced at the hosting institution, and application received through the host institutions official application procedures will be considered.

Application attachments

- Motivation letter, max 2 pages
- CV (max 2 pages) including a list of publications (if any)



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- Summary of last degree thesis (1 page)
- Names and contact details of 3 referees, but no letters.

By applying for PhD 13, you agree that your application can be transferred to other positions in the network for consideration.

The link for application to PhD project 13 will be provided soon. In the mean time take a look at the research of the supervision team for inspiration.

Recruitment

All announced positions will close on January 15th, and **the evaluation process will start immediately with interviews of shortlisted candidates planned in February. All candidates will receive response.** Questions regarding the recruitment can be sent to Panagiotis Madesis pmadesis@certh.gr, or the project leader of Plant.ID, Hugo de Boer hugo.deboer@nhm.uio.no.



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