

Job Description: Research Internship for Standardizing Protocols for DNA extraction from various materials but mainly targeted on sedimentary ancient DNA (SedADNA) from AMS radiocarbon dated peat / marshland cores in the upper montane Nilgiri Hills

Position Title: **RESEARCH INTERNSHIP**

Department: Laboratory of Palynology & Paleoecology

Position Type: Full-time

Location: French Institute of Pondicherry and Department of Genetics, School of Biological Sciences, Madurai Kamaraj University

Supervisors: Prof. G. Kumaresan, Department of Genetics, School of Biological Sciences, MKU and at IFP: Anupama Krishnamurthy and Prasad Srinivasan [Nilgiri Archaeological Project](#);

Project Overview:

The [Nilgiri Archaeological Project](#) is seeking a highly motivated Research Intern preferably a Post Masters student, with a strong background and motivation to learn cutting edge techniques and standardize protocols to extract mainly Plant DNA from various materials (bee pollen loads, soils, pollen extracted from soils etc) especially pollen bearing soil sediments in peat and other organically rich sedimentary deposits. The Shola forests are composed of unique vegetation assemblages among which is the family Lauraceae and some others whose pollen rarely preserve in sediments. Conversely, DNA studies may not pick up the entire spectrum that can be found from palynological studies. One aim of this project is to see how the two methods can be complementary.

Key Responsibilities:

- Assist Prof. Kumaresan at MKU with Laboratory work linked to sedimentary ancient DNA isolation optimization & characterization.
- Spend a short time at the IFP Pondicherry to get familiar with overall project goals and also principles of palynology and Paleoecology to make a link with the relevance of Sedimentary Ancient DNA (SedADNA)
- Assist in the preparation of reports, presentations, and potential publications based on the findings.

Qualifications:

- Masters in Biology with Relevant Skills of Molecular Biology
- Good organizational, communication, and analytical skills.
- Ability to work independently and collaboratively with a multidisciplinary team.

Application Process: Interested candidates should submit the following documents:

1. A cover letter detailing your research interests and how this Internship is of interest and relevance to you
2. A curriculum vitae (CV) highlighting academic achievements and any prior research experience.
3. Contact information for two academic references.

Student will be based mainly at Department of Genetics, School of Biological Sciences, Madurai Kamaraj University: initial contract for 3 months to standardize and then, 5 months based on results obtained. A joint peer reviewed publication on the method and results with the team, under the guidance of Dr Kumaresan is expected.

Application Deadline: 7 February 2025

Start Date: 10th February 2025

Duration: Three months with possibility of extension up to eight months (3+5)

Compensation: 15000 INR/month

For further information about the position or to submit your application, please contact Dr. Kumaresan- kumaresan@mkuniversity.ac.in / Dr. Anupama Krishnamurthy - anupama.k@ifpindia.org