

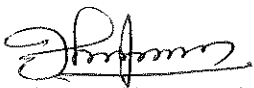
Notice for the PhD Viva Voce Examination

Ms Amogha G Paladhi, Registration Number: 2170248, PhD Scholar at the Department of Life Sciences, School of Sciences, CHRIST (Deemed to be University) will defend her PhD thesis at the public viva-voce examination on Wednesday, 06 May 2026 at 9.00 am in Room No. 628, 6th Floor, R&D Block, CHRIST (Deemed to be University), Bengaluru - 560029, Karnataka, India.

- Title of the Thesis** : **Ethnomedicinal Study of Gudibande Taluk, Chikkaballapur District, Karnataka and Bioprospecting *Argemone mexicana* L. Targeting Natural Solution for Age Spots**
- Discipline** : **Botany**
- External Examiner - I** : **Dr Lakshmi Narayana**
Professor
Department of Microbiology and Biotechnology
Bangalore University, Jnanabharathi Campus
Bengaluru - 560056
Karnataka
- External Examiner - II** : **Dr S Anitha**
Professor
Department of Biotechnology
Krishnadevaraya University
Anantapur - 515003
Andhra Pradesh
- Supervisor** : **Dr Manjunatha B T**
Professor (Former)
Department of Life Sciences
School of Sciences
CHRIST (Deemed to be University)
Bengaluru - 560029
Karnataka

The members of the Research Advisory Committee of the Scholar, the faculty members of the Department and the School, interested experts and research scholars of all the branches of research are cordially invited to attend this open viva-voce examination.

Place: Bengaluru
Date: 23 April 2026


Registrar (Academics)

ABSTRACT

The ethnomedicinal practices, which have been kept alive by the indigenous as well as the local people, who are a great source for the discovery of plant-based therapeutics not only for known various disorders but also in case of age spots that are a result of excessive melanogenesis. Depending upon the ethnomedicinal usage and present research data, *Argemone mexicana* L. was chosen for a detailed scientific study to evaluate its potency in treating age spots. Subsequently, the anti-melanogenic capacity of *Argemone mexicana* L. was tested on B16 melanoma cells by determining the level of toxicity using the MTT assay, measuring intracellular melanin content, monitoring tyrosinase activity, and also checking the amount of reactive oxygen species (ROS) produced. Phytochemical screening presented the identified compounds such as alkaloids, phenols, and flavonoids. The GC-MS analysis pointed out that the predominant phytoconstituents associated with melanogenic activity were those of the plant extract. The molecular docking studies with the compounds identified by GC-MS displayed good interactions with the active site of the mushroom tyrosinase enzyme, which was in agreement with the in vitro results observed. The research provides scientific proof for the use of the plants in ethnomedicine from Gudibande Taluk, Chikkaballapur District, and it also points out that *Argemone mexicana* L. is a potential source of treatment for age-related hyperpigmentation.

Keywords: *Age spots, Argemone mexicana* L., *B16 melanoma cells, Tyrosinase activity, Linoleic acid, Melanogenic activity, 2-octenoic acid*

Publications:

1. **Amogha G Paladhi**, BT Manjunath. "An ethnopharmacological investigation of antidiabetic plants used in Gudibande Taluk, Chikkaballapur District, Karnataka, India." *Medicinal Plants - International Journal of Phytomedicines and Related Industries* (2025):17(2). Doi: 10.5958/0975-6892.2025.00027.2
2. **Amogha G Paladhi**, Manjunath BT. "Ethno-Medicinal Plants of Gudibande Taluk, Chikkaballapur District, Karnataka, with Special Reference to Skin-Hair and Heart-Related Ailments." *Journal of Rare Cardiovascular Diseases* (2025) Doi: <https://doi.org/10.61336/jrcd/25-S3-35>