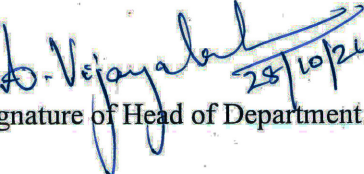


Certificate

I certify that the thesis entitled "**Enhancing *Invitro* Propagation Efficiency and Exploring Wound Healing Therapeutic Potential of *Rauvolfia tetraphylla* L.: A Multifaceted Approach**" submitted to Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore for the award of the Degree of Doctor of Philosophy (Ph.D.) in Botany, is a record of original work done by Miss. Lavanya N, during the period from June 2019 to December 2024 in Department of Botany, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, under my guidance and supervision and the thesis has not formed on the basis for the award of any Degree, Diploma, Associateships, Fellowship, or similar Thesis to any candidate in this University or any other University or Institution of Higher Learning.


Signature of the Supervisor 28/10/2024


Signature of Head of Department 28/10/24


Signature of the Dean 28/10/2024

Declaration

I declare that the thesis entitled “**Enhancing *In vitro* Propagation Efficiency and Exploring Wound Healing Therapeutic Potential of *Rauvolfia tetraphylla* L.: A Multifaceted Approach**” submitted by me for the Degree of Doctor of Philosophy (Ph.D) by Ms. Lavanya N in Department of Botany, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore is the record of research work carried out by her during the period from June 2019 to June 2024 under the guidance of **Dr. S. Amutha M.Sc., M.Phil., Ph.D.**, Assistance Professor and this work has not formed on the basis for the award of any Degree, Diploma, Associateships, Fellowship or other Thesis in this University or any other University or Institution of Higher Learning.


28/10/24
Signature of Candidate


28/10/2024
Signature of the Supervisor

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Abbreviations

H ₂ SO ₄	- Sulfuric acid
MS medium	- Murashige and Skoog medium
HCl	- Hydrogen Chloride
NaOH	- Sodium hydroxide
(NH ₄) NO ₃	- Ammonium nitrate
KNO ₃	- Potassium Nitrate
CaCl ₂ .2H ₂ O	- Calcium chloride
MgSO ₄ .7H ₂ O	- Magnesium sulphate heptahydrate
KH ₂ PO ₄	- Potassium dihydrogen phosphate
MnSO ₄ .4H ₂ O	- Manganese(II) sulphate tetrahydrate
ZnSO ₄ .7H ₂ O	- Zinc sulphate heptahydrate
H ₃ BO ₃	- Boric acid
Na ₂ MoO ₄ .4H ₂ O	- Sodium molybdate tetrahydrate
CuSO ₄ .5H ₂ O	- Copper(II) sulphate pentahydrate
CoCl ₂ .6H ₂ O	- Cobalt(II) chloride
KI	- Potassium Iodide
Na ₂ EDTA	- Ethylenediaminetetraacetic acid disodium salt dihydrate
FeSO ₄ .7H ₂ O	- Ferrous sulphate heptahydrate
2,4-D	- 2,4-dichlorophenoxyacetic acid
IAA	- Indole -3- acetic acid
IBA	- Indole-3- butyric acid
BAP	- Benzyl adenine
KIN	- Kinetin
HgCl ₂	- Mercuric chloride

LAF	- Laminar airflow cabinet
PGRs	- Plant growth regulators
ANOVA	- Analysis of variance
FC reagent	- Folin Ciocalteau reagent
TLC	- Thin Layer Chromatography
GCMS	- Gas Chromatography Mass Spectrometry
LCMS	- Liquid Chromatography-Mass Spectrometry
R _f values	- Retardation factors
FTIR	- Fourier-transform infrared spectroscopy
NMR	- Nuclear magnetic resonance (NMR) spectroscopy
MTCC	- Microbial Type Culture Collection
MIC	- Minimum Inhibitory Concentration
DPPH	- 1,1-Diphenyl-2-picrylhydrazyl
FRAP	- Ferric Reducing Antioxidant Power (FRAP) assay
MTT	- 3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyl tertazolium bromide
MEM	- Minimum Essential Medium
CCM	- Chick Chorioallantoic Membrane
TDC	- Tryptophan decarboxylase
PDB	- Protein databank