

**Dr. Veena Pande**

M.Sc., Ph.D.

Professor

Department of Biotechnology

Kumaun University, Bhimtal-263136



Coordinator

BIF & Microbiology Programme

Kumaun University, Bhimtal-263136

Ph. : 05942-248185 (O), 239218 (R)

Email : veena\_kumaun@yahoo.co.in

**CERTIFICATE**

This is to certify that Miss. Pooja Joshi (Roll No. 220915760012) a student of M.Sc. Microbiology at the Department of Biotechnology, Kumaun University, Sir J. C. Bose Technical Campus, Bhimtal, has carried out her dissertation project on 'Assessing the Effects of Radiation on Zebrafish Embryo' under the joint supervision of Dr. I. Prem Kumar, Scientist-F, INMAS and myself. To the best of my knowledge, this work has not been submitted, in part or full, for the award of any degree or diploma of any University.

Date: 1<sup>st</sup> July 2024

  
(Dr. Veena Pande)

**Dr. Veena Pande**

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## CERTIFICATE

This is to certify that **Mr. Hardik Mittal (Roll No. 220915760001)** a student of **M.Sc. Microbiology** at the Department of Biotechnology, Kumaun University, Sir J. C. Bose Technical Campus, Bhimtal, has carried out his dissertation project on '**Detection of Early-Onset Neonatal Sepsis using Real-Time PCR**' under the joint supervision of Dr. Binita Goswami, Co-Nodal Officer, MRU, MAMC and myself. To the best of my knowledge, this work has not been submitted, in part or full, for the award of any degree or diploma of any University.

Date: 1/07/2024

  
(Dr. Veena Pande)



## DEPARTMENT OF BIOTECHNOLOGY

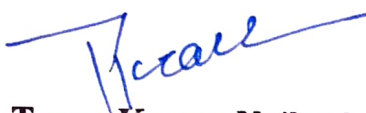
KUMAUN UNIVERSITY  
BHIMTAL CAMPUS,  
BHIMTAL

Pin code- 263136  
Ph: 05942-248185  
Fax: 05942-248042

### CERTIFICATE

This is to certify that **Ms. Aaliya Javed (Roll no: 220915760003)** a student of **M.Sc. Microbiology** at Department of Biotechnology, Kumaun University, Sir J.C Bose Technical Campus, Bhimtal has carried out her dissertation project on “**Delineating the effect of N-acetyl aspartate on  $\alpha$ -synuclein aggregation: Implication in Parkinson’s disease**” under the supervision of **Dr. Asimul Islam**, Professor, Jamia Millia Islamia and **Prof. Tapan Kumar Nailwal**, Professor and Head, Department of Biotechnology. To the best of my knowledge in partial fulfilment of the requirements for the award of the degree of Master of Science in Microbiology, embodies the original work carried at Protein Research Laboratory, Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, New Delhi-110025.

Date: 03/06/24

  
**Prof. Tapan Kumar Nailwal**  
Professor and Head  
Department of Biotechnology  
Kumaun University (Nainital)



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Fax: 05342248042

### CERTIFICATE

This is to certify that **Ms. Akansha Sanwal (Roll no. 220915750009)**, a student of **M.Sc. Biotechnology** at the Department of Biotechnology, Kumaun University, Sir J.C. Bose Technical Campus, Bhimtal, has carried out her dissertation project on **“Development of a novel antimicrobial peptide through de-novo designing approach”** under the joint supervision of Dr. Dimpal Thakuria, Senior Scientist (ICAR-DCFR), Dr. Kh. Victoria Chanu, Senior Scientist (ICAR-DCFR) and myself. To the best of my knowledge this work has not been submitted, in part or full, for the award of any degree or diploma of any University.

Date: 27/06/24

27/06/24  
**Dr. Santosh K. Upadhyay**  
Sr. Assistant Professor  
Department of Biotechnology  
Sir J.C. Bose Technical Campus, Bhimtal  
Kumaun University, Nainital



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**BHIMTAL CAMPUS,**

**BHIMTAL**

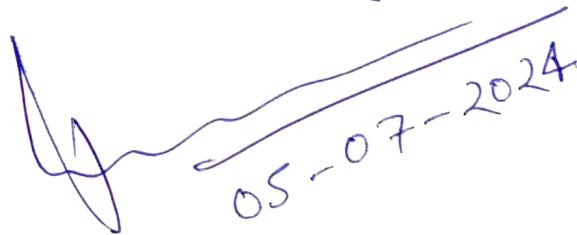
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## CERTIFICATE

This is to certify that Ms Swarnika Kholia Student of M.Sc Microbiology (220915760015) at the Department of Biotechnology, Kumaun University Nainital, has carried on his dissertation on "EFFECT OF GLYCINE ON TOTAL PROTEIN CONTENT OF THERAPEUTIC HUMAN SERUM ALBUMIN BY KJELDAHL AND BIURET METHOD" under my supervision. To the best of my knowledge this work has not been submitted in part or full, for the award of any other degree or diploma of any other University .



05-07-2024

Date:

**Dr.Rishendra Kumar**

Assistant Professor

Department Of Biotechnology

Kumaun University,Nainital



## DEPARTMENT OF BIOTECHNOLOGY

KUMAUN UNIVERSITY

BHIMTAL CAMPUS,

Uttarakhand

**Dr. Rishendra Kumar**

Assistant Professor,

Department of Biotechnology,

Sir J.C. Bose Technical Campus, Bhimtal

Kumaun University, Nainital

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### CERTIFICATE

This is to certify that **Ms. Sunita Mahar (Roll No. 220915760014)**, a student of **M.Sc. Microbiology** at the Department of Biotechnology, Kumaun University, Sir J.C. Bose Technical Campus, Bhimtal, has carried out her dissertation project on **“Investigate the expression levels of Helper T cell in depression patients using flow cytometry.”** under the joint supervision of Dr. Binita Goswami, professor, Co-Nodal Officer (Multidisciplinary Research Unit) and myself. To the best of my knowledge, this work has not been submitted, in part or full, for the award of any degree or diploma from any University.

**Date:**

**(Rishendra Kumar)**

05-07-2024



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### CERTIFICATE

This is to certify that **Ms. Prerna Pandey (Roll no. 220915750016)**, a student of **M.Sc. Biotechnology**, at Department of Biotechnology, Kumaun University, Sir J.C. Bose Technical Campus, Bhimtal has carried out her dissertation project on topic "**Design, synthesis and characterisation of a novel antimicrobial peptide**". Under the joint supervision of Dr. Victoria Kh. Chanu, Dr. Dimpal Thakuria, (ICAR- DCFR, Bhimtal) and myself. To the best of my knowledge, this work has not been submitted, in part or full, for the award of any degree or diploma of any University.

Date: 3/7/24

**Dr. Mayank Pandey**

Assistant Professor

Department of Biotechnology

Sir J.C. Bose Technical Campus, Bhimtal

Kumaun University, Nainital

**Dr. Veena Pande**

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### CERTIFICATE

This is to certify that **Miss. Garima Pandey (Roll No. 220915760008)** a student of **M.Sc. Microbiology** at the Department of Biotechnology, Kumaun University, Sir J. C. Bose Technical Campus, Bhimtal, has carried out his dissertation project on “**Evaluation of anti-oomycete activity of iodine against *Saprolegnia***” under the joint supervision of **Dr. Kh. Victoria Chanu**, Senior Scientist at ICAR-Directorate of Coldwater Fisheries Research, Bhimtal and myself. To the best of my knowledge, this work has not been submitted, in part or full, for the award of any degree or diploma of any University.

Date: 1<sup>st</sup> July 2024

  
(Dr. Veena Pande)



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Uttarakhand**

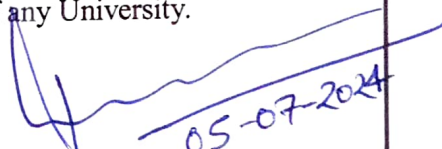
**Dr. Rishendra Kumar**  
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### CERTIFICATE

This is to certify that **Ms Richa Palaria (Roll No. 220915760013)**, a student of **M.Sc. Microbiology** at the Department of Biotechnology, Kumaun University, Sir J.C. Bose Technical Campus, Bhimtal, has carried out her dissertation project on "**Effect of copper sulphate on *Ralstonia pseudosolanacearum* isolated from Uttarakhand**" under the joint supervision of Dr. Merwyn P. Raj, Scientist 'D' (**DIBER haldwani**) and myself. To the best of my knowledge, this work has not been submitted, in part or full, for the award of any degree or diploma of any University.

**Date:**

  
**(Rishendra Kumar)**



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**KUMAUN UNIVERSITY  
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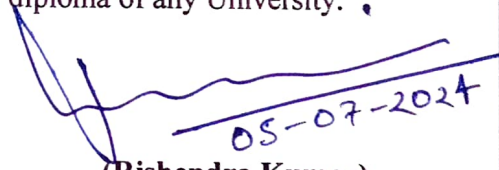
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### CERTIFICATE

This is to certify that **Ms Manisha Mathpal (Roll No. 220915760011)**, a student of **M.Sc. Microbiology** at the Department of Biotechnology, Kumaun University, Sir J.C. Bose Technical Campus, Bhimtal, has carried out her dissertation project on "**Validation Of a Lignolytic Microbial Cultures Isolated from Pine Needle Litter**" under the joint supervision of Dr. Atul Grover Scientist 'E' (**DIBER haldwani**) and myself. To the best of my knowledge, this work has not been submitted, in part or full, for the award of any degree or diploma of any University. .

**Date:**

  
**(Rishendra Kumar)**

**Dr. Veena Pande**

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## **CERTIFICATE**

This is to certify that **Miss. Kritika Joshi (Roll No. 220915760009)** a student of **M.Sc. Microbiology** at the Department of Biotechnology, Kumaun University, Sir J. C. Bose Technical Campus, Bhimtal, has carried out his dissertation project on '**Evaluation of Ralstonia pseudosolanacearum primers against soil metagenomics**' under the joint supervision of Dr. Merwyn P. Raj ,Scientist D, Defence Institute of Bio-energy Research and myself. To the best of my knowledge, this work has not been submitted, in part or full, for the award of any degree or diploma of any University.

Date: 29/07/2024.

  
(Dr. Veena Pande)



## DEPARTMENT OF BIOTECHNOLOGY

Dr. Tapan Kumar Nailwal  
Professor & Head

Sir J. C. Bose Technical Campus, Bhimtal- 263136  
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E-mail tapannailwal@gmail.com  
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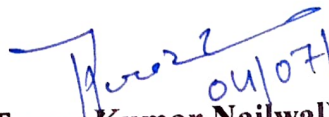
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Date : .....

### CERTIFICATE

This is to certify that **Mr. Ritik Joshi (Enrolment no: KU 229083475)** a student of **M.Sc. Microbiology** at Department of Biotechnology, Kumaun University, Nainital, Sir J. C. Bose Technical Campus, Bhimtal has carried out his thesis work on “***In vitro* regeneration of *Meizotropis pellita* (Vern. Patwa) and its antimicrobial property analysis**” under my supervision for fulfilling partial requirements for the award of degree in M.Sc. (Microbiology). He has put in more than 180 days of attendance for his M.Sc. thesis work. To the best of my knowledge, this work has not been submitted, in part or full, for the award of any other degree or diploma at any University/Institute.

Date

  
04/07/24  
(Tapan Kumar Nailwal)