

Assessing the Potential of HP-NAP to Reprogram Tumor-Associated Macrophages: An *In Silico* Investigation

Dissertation submitted for the Partial Fulfilment

**For the Award of
Master of Science
in
Microbiology**



Submitted by

Keshav Bansal (23mslsms04)

Under the supervision of

Prof. Monisha Dhiman

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July, 2025

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**TO EVALUATE THE EFFECTS OF URBAN
PARTICLES ON IN VITRO BIOFILM AND
VIRULENCE OF *Staphylococcus aureus***

Dissertation submitted for the partial fulfilment

For the award of

Master of Science

In

Microbiology

BY

Anushka Sharma

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Under the supervision of

DR. MUKESH KUMAR YADAV



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DEPARTMENT OF MICROBIOLOGY

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CENTRAL UNIVERSITY OF PUNAJB, BHATINDA

JUNE-2025

**Investigating Spinal Tuberculosis in Tertiary Care
Hospital: A Clinical, Radiological, and
Microbiological Correlation**

A Dissertation submitted to Central University of Punjab



**For the Partial Fulfilment of the Requirement for the Degree of
Master of Sciences in Microbiology**

Submitted By

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23/7/24

**Evaluating the Therapeutic Effects of Probiotic and
Prebiotic Formulations in an HP-NAP-Induced Colonic
Stress Using Human Epithelial Cells**

**Dissertation Submitted
for the Partial Fulfilment**

**For the award of
Master of Science**

**In
Microbiology**

By

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Deepesh Kharadi(23mslms10)**

**Under the Supervision of
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Deciphering Gut Microbiota Alterations in Substance Use Disorders Through Metagenomic Profiling

Dissertation submitted for
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In

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**Sen1 Localization and its Role in Transcription
Termination of RNA polymerase III in
*Schizosaccharomyces pombe***

Thesis submitted in partial fulfilment of the requirement for the award of the degree of

Master of Science in Microbiology

(2023-2025)

DEPARTMENT OF MICROBIOLOGY

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**Work done in the Molecular Biology Lab of Dr. SHASHIKALA VERMA, Assistant Professor,
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Banaras Hindu University (BHU), Varanasi-221005**

**Evaluation of antimicrobial activity of postbiotics against
Multidrug resistant *Pseudomonas aeruginosa***

Dissertation submitted for the Partial Fulfilment

For the award of

Master of Science

In

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BY

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CENTRAL UNIVERSITY OF PUNJAB, BATHINDA,

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Isolation and Characterisation of Non Typhoidal Salmonella Targeted Phages from samples of Poultry Farms

Dissertation Submitted to the Central University of Punjab

For the award of

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**TO EVALUATE ANTIBIOFILM POTENTIAL OF
LACTICASEIBACILLUS RHAMNOSUS CELL FREE
SUPERNATANT AGAINST STAPHYLOCOCCUS AUREUS**

Dissertation submitted for

The Partial Fulfilment

For the award of

Master of Science

In

Microbiology

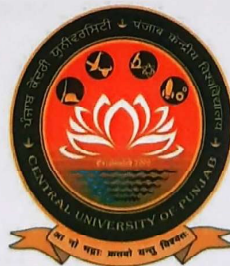
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Unveiling the Gut Microbial Landscape in Substance Use Disorders: A Culturomics Approach

A Dissertation submitted to Central University of Punjab

For the Partial Fulfilment for the Award of

Master of Sciences in Microbiology



Submitted By

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INVESTIGATION OF THE ANTIBACTERIAL EFFECTS OF CARVACROL AND RESVERATROL AGAINST *STREPTOCOCCUS PNEUMONIAE* BIOFILMS

Dissertation submitted for
the Partial Fulfilment
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In

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DEPARTMENT OF MICROBIOLOGY

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CENTRAL UNIVERSITY OF PUNJAB, BATHINDA

JULY 2025

**Investigating the Acute and Prolonged Effect of Heavy
Metals on the HCT-116 Colorectal Cancer Cell line**

Dissertation submitted for

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July, 2025

**Environmental Surveillance of Norovirus GII in
Wastewater Samples of Bhopal City: A Comparative
Sensitivity Study of ddPCR and RT-PCR**

Dissertation Thesis

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Effect of Urban Particles on *in vitro* biofilm growth of *Escherichia coli* Bacteria

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DEPARTMENT OF MICROBIOLOGY

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JULY-2025

**TO STUDY THE INVOLVEMENT OF DOPAMINE RECEPTORS IN
DIET-DEPENDENT NEURON-GUT SIGNALLING THAT
REGULATES LIFE HISTORY TRAITS**

Dissertation submitted for

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Master of Science

in

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**Evaluation of antimicrobial activity of postbiotics against
multidrug-resistant *Klebsiella pneumoniae*.**

Dissertation submitted for the Partial Fulfilment

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**In
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**An In Vitro Study of Nanoplastic-Induced
Mito-epigenetic Alterations and Their Implications in
Neurodegenerative Diseases**

Dissertation Thesis

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DEPARTMENT OF MICROBIOLOGY

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JULY-2025

Identification of Functional Type II Toxin-Antitoxin Systems in *Bacillus anthracis*

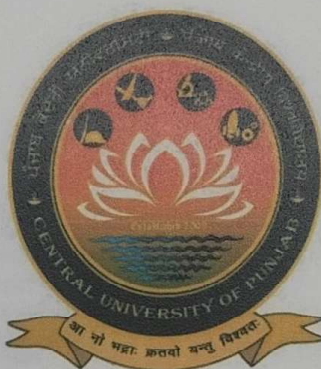
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DEPARTMENT OF MICROBIOLOGY

SCHOOL OF BASIC SCIENCE

CENTRAL UNIVERSITY OF PUNJAB, BATHINDA

Work carried out at the Molecular Biology Laboratory, Centre for Experimental Medicine and Surgery (CEMS), Institute of Medical Sciences (IMS), Banaras Hindu University (BHU), Varanasi – 221005, under the mentorship of Dr. Shashikala Verma.

***"Evaluation of antimicrobial activity of yeasts from
naturally fermented milk products of Punjab"***

**A Dissertation Submitted
To
Central University of Punjab**



**For the Partial Fulfilment of the Requirement for the Degree of
Master of Sciences in Microbiology**

**Submitted
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JULY 2024

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“Isolation of exocellular polysaccharide (EPS) producing lactic acid bacterial strains from fermented milk products and assessment of Carbohydrate Effects on EPS Production”

Dissertation submitted to Central University of Punjab

For the Partial Fulfilment of the requirement for the Degree of

**Master of Science
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Registration No: 23mslms39

M.Sc. Microbiology (2023-25)

Supervisor

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Utility of CBNAAT in detection of *Mycobacterium tuberculosis* in Pulmonary Sample

**A Dissertation submitted for
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Department of Microbiology

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JULY-25

Exploring the role of miR-X in regulating STAT3 signaling in triple negative breast cancer

A Dissertation submitted to Central University of Punjab



**For the Partial Fulfilment of the Requirement for the Degree of
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पंजाब, भारत / Punjab, India-151401

**SYNTHESIS, CHARACTERIZATION AND CYTOTOXIC
EVALUATION OF TASAR SILKWORM DERIVED SERICIN
NANOPARTICLES LADEN WITH RESVERATROL AND SERICIN -
PVA HYDROGELS LOADED WITH CISPLATIN FOR
ANTIBACTERIAL APPLICATIONS**

Dissertation submitted For

the Partial Fulfillment

for the Award of

Master of Science

In

Microbiology

by

Shai Shikha Rout

28mslms48

Under the Supervision of

Dr. Somesh Baranwal

अनुमोदित
Somesh Baranwal
10/7/2024

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DEPARTMENT OF MICROBIOLOGY

SCHOOL OF BASIC SCIENCES

CENTRAL UNIVERSITY OF PUNJAB, BATHINDA

JULY-2025

**Understanding the glucose uptake mechanisms in
*Caulobacter crescentus***

A dissertation submitted

To

Central University of Punjab



For the Partial Fulfillment of the Requirement for the Degree of

MASTER OF SCIENCES

IN

MICROBIOLOGY

BY

ANANYA PANDEY

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Under the supervision of

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पंजाब, भारत / Punjab, India-151401

**NusG mediated Transcription-Translation coupling and
its role in antibiotic resistance dynamics**

Dissertation submitted to the
Central University of Punjab

For The Award of
Master in Microbiology

By

Manjoy Pramanik

(23mslms51)

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School of Basic Science
Central University of Punjab, Bathinda
July 2025

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**“Investigating gamma-aminobutyric acid (GABA)
production and probiotic characteristics of native
lactic acid bacterial strains isolated from
traditionally fermented milk product of Punjab”**

Dissertation

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पंजाब, भारत / Punjab, India-151401

“Investigating The Role of Various Diagnostic Approaches in The Detection of Tuberculous Meningitis”

Dissertation Summary Submitted to the

Central University of Punjab

For the Award

of

Master of Science

In

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पंजाब, भारत / Punjab, India-151401

“Assessing the antimicrobial properties of lactic acid bacterial strains against selected pathogenic microorganisms”

A Dissertation Submitted

To

Central University of Punjab



**For the Partial Fulfilment of the Requirement for the Degree of
Master of Sciences in Microbiology**

Submitted

By

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