Identification and Antimicrobial susceptibility test of Klebsiella pneumoniae by automated methods. Carbapenemase and metallo beta lactamase testing by mCIM and eCIM methods, from a tertiary care hospital.

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

MASTER OF SCIENCE IN BIOTECHNOLOGY

Submitted to,

Department of Studies in Biotechnology University of Mysore

Submitted by,

Amrutha. S

Reg. No: P01ZZ21S0412

IV Semester, M.Sc. Biotechnology

Department of studies in Biotechnology

University of Mysore, Manasagangotri, Mysore.

Under the Research Supervision of External Supervisor

Dr. H.B. Veena Kumari

Professor and Head

Department of Neuromicrobiology

National Institute of Mental Health and Neuro Sciences

Bengaluru- 560029, Karnataka, India

Internal Supervisor

Dr. S. Umesha

Professor and Chairman

Department of Studies in Biotechnology
University of Mysore, Manasagangotri,
Mysore-570006, Karnataka, India

DECLARATION

I, Amrutha. S, hereby declare that this study was carried out by me at National Institute of Mental Health and Neuro Sciences (NIMHANS), Bengaluru, under the guidance of **Dr. H.B.**Veena Kumari, Professor and Head, Department of Neuromicrobiology, NIMHANS, Bengaluru and **Dr. S. Umesha**, Professor and Head, Department of science in Biotechnology, University of Mysore, Mysuru.

I also declare that the subject of this dissertation title 'Identification and Antimicrobial susceptibility test of Klebsiella pneumoniae by automated methods. Carbapenemase and metallo beta lactamase testing by mCIM and eCIM methods, from a tertiary care hospital' has not previously formed the basis for the award of any degree, diploma, associateship, fellowship or other similar titles.

Place: Bengaluru

Date: August 2023

AMRUTHA. S

Signature of Research Supervisor

17 Asomor

Signature of Chairman
Chairman

Department of Studies in Biotechnology
University of Mysore, Manasayangotri
Mysuru - 570 008