# HEPATOPROTECTIVE ACTIVITY OF L-MALIC ACID IN HEPATOTOXIC RATS

A Thesis

Submitted for Partial Fulfillment of the Requirement for the Award of Degree of Master of Pharmacy

(Pharmacology)



2021-2022

#### SUPERVISED BY

Dr. Pradeep Kumar Samal (M.Pharm., Ph. D.) Asst. Prof. (Pharmacology)

#### **CO-SUPERVISED BY**

Dr. Bharti Ahirwar (M.Pharm., Ph. D.) (Associate Professor and Head)

#### SUBMITTED BY

Mr. Onkar Prasad Kesharwani Roll No.:20705009 Enroll.:GGV/20/06327

DEPARTMENT OF PHARMACY GURU GHASIDAS VISHWAVIDYALAYA (A CENTRAL UNIVERSITY) BILASPUR (C.G.)

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# DEPARTMENT OF PHARMACY GURU GHASIDAS VISHWAVIDYALAYA

(A CENTRAL UNIVERSITY) BILASPUR (C.G.)



## FORWARDING CERTIFICATE

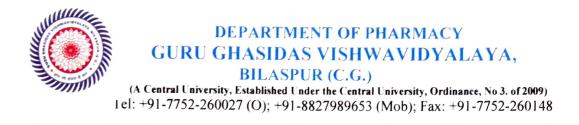
This is to certify that Mr. Onkar Prasad Kesharwani S/o. Mr. Santosh Kumar Kesharwani, a student of M. Pharm (Final Semester) of this department has submitted his thesis entitled "Hepatoprotective Activity of L-Malic Acid in Hepatotoxic Rats" for the partial fulfilment of the requirement of Master of Pharmacy in Pharmacology with his truly and honesty observed inference during his project work. He has completed his project work in the joint supervision of me and Dr. Pradeep Kumar Samal (Assistant Professor, Pharmacology). His work is original, satisfactory and is not submitted anywhere else for the award of any degree.

I hereby forward his thesis for the award of M. Pharmacy (Pharmacology) during the academic session 2021-22.

Forwarded by

Dr. Bhartí Ahírwar

Head.O.D) Department of Pharmacy Gurte Shalidas Vishwavidyalaya (A control University)



## <u>CERTIFICATE</u>

This is to certify that Mr. Onkar Prasad Kesharwani S/o. Mr. Santosh Kumar Kesharwani, a student of M. Pharm (Final Semester) of this department has submitted his thesis entitled "Hepatoprotective Activity of L-Malic Acid in Hepatotoxic Rats" for the partial fulfilment of the requirement of Master of Pharmacy in Pharmacology with his truly and honesty observed inference during his project work. He has completed his project work in our joint supervision. His work is original, satisfactory and is not submitted anywhere else for the award of any degree.

We hereby forward his thesis for the award of M. Pharmacy (Pharmacology) during the academic session 2021-22.

Dr. Pradeep

(Supervisor)

Dr. Pradeep Kumar Samal Ascit Projector Inst. J. Pharm. Sciences Guru Chasidas Vishwavidyülu Asmit Bilaspuri C.G.:

(Co -Supervisor)



### DECLARATION

I hereby declare that my project work entitled "Hepatoprotective Activity of L-Malic Acid in Hepatotoxic Rats" is prepared in the Joint supervision of Dr. Pradeep Kumar Samal, Assistant Professor and Dr. Bharti Ahirwar for the partial fulfilment of the requirement of Master of Pharmacy in Pharmacology.

I further declare that to the best of my knowledge the thesis does not contain any part of any work, which has been submitted for the award of any degree either in this University or in any other University/Deemed University without proper citation.

Achancom Onkar Prasad Kesharwani

### <u>ACKNOWLEDGEMENT</u>

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Onkar Prasad Kesharwani

# CONTENTS

Certificate	I
Declaration	II
Acknowledgement	

S.N.	TITLE	PAGE NO.
1.	INTRODUCTION	1-9
2.	LITERATURE REVIEW	10-11
3.	AIM AND OBJECTIVES	12
4.	DRUG PROFILE	13-14
5.	MATERIAL AND METHODS	15-26
6.	RESULTS	27-35
7.	DISCUSSION	36-37
8.	SUMMARY AND CONCLUSION	38
9.	REFERENCES	39-45