Pharmaceutics			
NAME OF SUPERVISORS	NAME OF STUDENT	TITLE OF THE RESEARCH PROJECT	
Dr.Mrs.K.P.Upadhye	Anuradha Anil Dhokpande	Development and evaluation of sunscreen gel loaded with microsponges of curcumin and lycopene	
DR. Mrs. G. R. DIXIT	Ashish Babarao Belsare	Formulation and Characterization of Extended Release Tablet using Polyvinyl Alcohol Polymer	
Dr Mrs S.S Bakhle	Juhi Mohan Makode	Formulation and Evaluation of Proniosomal Gel For Treatment of Skin Infection	
DR. Mrs. G. R. DIXIT	Kajal Kumari Sudhir Prasad	Formulation and Characterization of Nano Mucoadhesive Tablet for Vaginal Delivery.	
Dr. R. H. Kasliwal	Ketan Ekanath Jambhulkar	Development and Evaluation of Sustained Release Matrix Tablet for Antihypertensive Agent by using Natural Polymer.	
Dr. R. H. Kasliwal	Laxman Mukurdwaj Sahu	Formulation and Evaluation of Fast Disintegrating Sublingual Tablet for Anti diabetic Drug using natural Polymer.	
Dr.Mrs.K.P.Upadhye	Nikita Dinesh Shukla	Formulation and evaluation of a periodontal dressing containing an antibiotic agent to overcome post surgical complications of periodontal surgery	
Dr Mrs S.S Bakhle	Pooja Ramesh Dhenge	Formulation and Evaluation of Dental Insert Containing Antibiotic For The Treatment of Chronic Periodontitis	
Dr Mrs S.S Bakhle	Rakshika Mahesh Agrawal	Comparative Studies of Dissolution Enhancement of BCS Class II Drug Through Solid Dispersion and Liquisolid Compact	
DR. Mrs. G. R. DIXIT	Sakshi Rajesh Sharma	Solubility Enhancement of Poorly Water Soluble Drug Using Mesoporous Silica Carrier	
Dr Mrs S.S Bakhle	Sakshi Vijay Bhope	Development and Evaluation of Mucoadhesive <i>In-Situ</i> Gel of Probiotic For The Management of Bacterial Vaginosis	
Dr.Mrs.K.P.Upadhye	Shivani Dilip Dhongde	Formulation and evaluation of natural gum facilitated miconazole drug loaded microsponges based topical gel	
Dr.R.H. Kasliwal	Yogita Narayan Chunchuwar	Formulation and Evaluation of Ethosomal Gel for the Management of Fungal Infection.	
Pharmaceutical Chemistry			
NAME OF SUPERVISORS	NAME OF STUDENT	TITLE OF THE RESEARCH PROJECT	
Dr. D. P. Kawade	Aishwarya Vishwanath	One-Pot Synthesis of Some New Quinoline Derivatives and Their Biological Evaluation	
Dr. Dinesh R. Chaple	Aniket Vinod Murkute	Design, Synthesis and Pharmacological Evaluation of 3-formyl Chormone Derivatives for Alzheimer	
Dr. D. P. Kawade	Aniqua Tajassum Sattar Sheikh	Green Synthesis of 1,3-Benzothiazole Derivatives and Evaluation of Their Biological Activity	
Dr. Mrs. A. J. Asnani	Anirudh Shyam Narayan Mishra	Development and Validation of Stability Indicating Analytical Methods for Estimation of Azilsartan Medoximal Potassium and Related Impurities in API and Formulation by Using the AQbD Approach	
Dr. D. P. Kawade	Ashwin Umesh Rahangdale	One-Pot Approach for Synthesis of 1,4- Dihydro Pyridine Derivative Based on Hantzsch Reaction	
Dr. Dinesh R. Chaple	Bhagyashri Sanjayrao Patil	Design, Synthesis, Characterization and Biological Evaluation of Thiazolo(3,2-A)Pyrimidine Derivatives	
Dr. Dinesh R. Chaple	Dhanshree Rameshrao Bawane	Design and Synthesis of Hydrazino-1,3,4-thiadiazole Derivative for their Anti-inflammatory Activity.	
Dr. Mrs. A. J. Asnani	Namrata Devidas Dhote	Development and Validation of Analytical Methods for Estimation of Glucocorticoid Receptor Antagonist with PGE1 Analogue in Pharmaceutical Formulation by AQbD	
Dr. Dinesh R. Chaple	Pranita Ishwar Rathod	Extraction, Phytochemical Characterization and Antimicrobial Study of Finger Millets	
Dr. Mrs. A. J. Asnani	Priyanka Baban Khedekar	Design, One Pot Synthesis and Pharmacological Studies of 1,2,4-Oxadiazole Derivatives	
Dr. Dinesh R. Chaple	Sahil Dilip Gayakwad	Extraction, Phytochemical Characterization and Anti-oxidant Study of Kodo Millets	

#### M. Pharm Sem II Reserch Projects List

Shubhangi Harishchandra Bhov	Design and Green Synthesis of Some New 2-Aryloxy-1,4-Naphthoquinone Derivatives as Antimicrobial Agents		
Shweta Vinayak Rane	Design, Synthesis and Pharmacological Evaluation of Thiazole Derivatives as a Glucokinase Activator		
Vaishnavi Shriwanta Bhure	Design, Synthesis and Pharmacological Screening of 4H-3,1-Benzoxazin-4-One Derivatives		
	Pharmacology		
NAME OF STUDENT	TITLE OF THE RESEARCH PROJECT		
Abdul Rehmat Abdul Wahab An	Pharmacological evaluation of novel drug combination in experimentally induced Alzheimer like condition		
Akshay Diliprao Bidwaik	PHARMACOLOGICAL EVALUATION OF SELECTED PHARMACEUTICAL IN EXPERIMENTALLY INDUCED DEPRESSION LIKE CONDITION		
Binayak Krishna Sarkar	Pharmacological study of food drug interaction for anti-parkinsonian treatment		
Jagruti Zashiram Thaware	PHARMACOLOGICAL INVESTIGATION OF SELECTED PHYTOPHARMACEUTICAL IN EXPERIMENTALLY INDUCED HYPERLIPIDEMIA		
Mayur Ashok Lohi	Preclinical investigation of novel drug combination for anti-depressant activity		
Prabhu Ramchandra Salekar	Pharmacological evaluation of some topical agents for wound healing activity		
Samiksha Dnyaneshwar Ajmire	PRECLINICAL INVESTIGATION OF SELECTED PHYTO PHARMACEUTICAL IN HYPERLIPIDEMIA LIKE CONDITION		
Satish Vilas Misar	Preclinical investigations of neuroprotective effect of some novel drug combination in experimentally induced dementia		
Sayali Vinod Kurjekar	Pharmacological evaluation of herbal extract for the treatment of bronchitis		
Shreya Bhujang Pathare	Preclinical investigation of effective combination therapy for bronchitis		
Pharmacognosy			
NAME OF STUDENT	TITLE OF THE RESEARCH PROJECT		
Anushree Vijay Shegaonkar	Formulation and Evaluation of oral dosage form of Uraira picta for the management of Diabetes		
Chetana Anil Lahariya	Comparative standardization of Ayurvedic preparation and Homoeopathic tincture		
Jayashri Bhumeshwar Telmasaı	Standardization of polyherbal formulation for osteoporosis.		
Mohd Shadabraza Mohd Salim	Formulation, Evaluation and Preclinical activity of Antidandruff Shampoo.		
Pooja Subhash Tarahane	Comparative evaluation of wild and cultivated variety of Emblica officinalis Gaertn plant.		
Puja Ravindra Nagarkar	Comparative study of the inner and outer bark of Azadirachta indica Linn.		
Rutuja Narendra Bhadange	Formulation and standardization of lutein containing eye drops.		
Sakshi Sitaramji Kamde	Evaluation of Cuscuta reflexa Roxb. collected from two different host plants.		
Shatak Anilrao Sahare	Comparative standardization of inhouse prepared and marketed herbal galactogogue granules		
	Shweta Vinayak Rane Vaishnavi Shriwanta Bhure  NAME OF STUDENT Abdul Rehmat Abdul Wahab An Akshay Diliprao Bidwaik Binayak Krishna Sarkar  Jagruti Zashiram Thaware Mayur Ashok Lohi Prabhu Ramchandra Salekar Samiksha Dnyaneshwar Ajmire Satish Vilas Misar Sayali Vinod Kurjekar Shreya Bhujang Pathare  NAME OF STUDENT Anushree Vijay Shegaonkar Chetana Anil Lahariya Jayashri Bhumeshwar Telmasa Mohd Shadabraza Mohd Salim Pooja Subhash Tarahane Puja Ravindra Nagarkar Rutuja Narendra Bhadange Sakshi Sitaramji Kamde		

# Design, Green Synthesis, and Biological Evaluation of Some New 2-Aryloxy-1,4-Naphthoquinone Derivatives as Antimicrobial Agent

#### THESIS

Submitted in partial fulfilment of requirement for the degree of

MASTER OF PHARMACY

IN

#### PHARMACEUTICAL CHEMISTRY

In the faculty of Science and Technology Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur

By

Shubhangi H. Bhowate

(B.Pharm)

Guide

Dr. Mrs. Alpana J. Asnani

(M.Pharm., Ph.D)





PRIYADARSHINI J.L. COLLEGE OF PHARMACY ELECTRONIC ZONE BUILDING, MIDC, HINGNA ROAD, NAGPUR-440016 2023-2024



#### LORMANYA TILAK JANKALYAN SHIKSHAN SANSTHAS

### PRIYADARSHINI J L COLLEGE OF PHARMACY

(Formerly called; J. L. Chaturvedi College of Pharmacy)

Electronic zone Building, MIDC, Hingna Road, Nagpur-440016 (M.S.)

Tel & Fax No. +91-7104-299510, Email: <u>llccpngp@rediffmail.com</u> Website: <u>www.pjlcp.edu.in</u>
(Approved by AICTE & New Delhi; Affiliated to R.T.M. Nagpur University, Nagpur)

ACCREDITED WITH GRADE A' BY NAAC

Dr. D. R. Chaple M. Pharm., Ph.D. Principal and Professor, Priyadarshini J. L. College of Pharmacy, Nagpur

#### CERTIFICATE

This is to certify that the work investigations described in this thesis, entitled "Design, Green Synthesis, and Biological Evaluation of Some New 2-Aryloxy-1,4-Naphthoquinone Derivatives as Antimicrobial Agent" submitted in partial fulfillment of requirement for degree of Master of Pharmacy in Pharmaceutical Chemistry, in the faculty of Science and Technology, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. The work is original as far as my knowledge concerned and not imitated from anywhere. This work has been carried out in laboratories of Priyadarshini J. L. College of Pharmacy, Nagpur, by Ms. Shubhangi H. Bhowate under guidance of Dr. (Mrs.) A. J. Asnani Professor and Head of the Pharmaceutical Chemistry Department, Priyadarshini J. L. College of Pharmacy, Nagpur.

This thesis is now ready for examination.

Place: Nagpur

Date: 21/56/24

Dr. Dinesh R. Chaple

# GREEN SYNTHESIS OF 1,3-BENZOTHIAZOLE DERIVATIVES AND EVALUATION OF THEIR BIOLOGICAL ACTIVITY

#### THESIS

Submitted in partial fulfillment of requirement for the degree of MASTER OF PHARMACY

IN

### PHARMACEUTICAL CHEMISTRY

In the Faculty of Science and Technology Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur

By

Ms. Aniqua T. S. Sheikh

(B. Pharm.)

Guide

Dr. Dinesh P. Kawade

(M. Pharm., Ph.D.)





# PRIYADARSHINI J L COLLEGE OF PHARMACY

Electronic Zone Building, Hingna road, MIDC, Nagpur-440016 2023-2024



LORMANYA TILAK JANKALYAN SHIKSHAN SANSTHA'S

#### PRIYADARSHINI J. L. COLLEGE OF PHARMACY

(Formerly called J. L. Chaturvedi College of Pharmacy)
Electronics Zone Building, MIDC, Hingna Road, Nagpur-440016 (M.S.)

Tel & Fax No. +91-7104-299510, E-mail: ilccp\_nep@rediffmail.com. Website: www.pilcp.edu.in.
(Approved By AICTE & DTE, New Delhi; Affiliated to R T.M. Nagpur University Nagpur)

Dr. D. R. Chaple
Principal,
M. Pharm., Ph. D
Priyadarshini J. L. College of Pharmacy, Nagpur- 440016.

#### CERTIFICATE

This is to certify that the work investigation described in this dissertation entitled "Green Synthesis of 1,3-Benzothiazole Derivatives and Evaluation of Their Biological Activity" is submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy in Pharmaceutical Chemistry, in the faculty of Science and Technology, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. This work is original as far as my knowledge is concerned and not imitated from anywhere. This work has been carried out in laboratories of the Priyadarshini J. L. College of Pharmacy, Nagpur, by Ms. Aniqua T. S. Sheikh, under the guidance and supervision of Dr. Dinesh P. Kawade, Priyadarshini J. L. College of Pharmacy, Nagpur.

This dissertation is now ready for examination.

Place: Nagpur

Date: 26/06/2024

Dr. D. R. Chaple

(PRINCIPAL)

# ONE-POT SYNTHESIS OF SOME NEW QUINOLINE DERIVATIVES AND THEIR BIOLOGICAL EVALUATION

#### THESIS

Submitted in partial fulfillment of requirement for the degree of

MASTER OF PHARMACY

IN

#### PHARMACEUTICAL CHEMISTRY

In the Faculty of Science and Technology

Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur

By

Ms. Aishwarya V. Lichade (B.Pharm)

Guide

Dr. Dinesh P. Kawade

(M.Pharm., Ph.D)





PRIYADARSHINI J L COLLEGE OF PHARMACY

Electronic Zone Building, MIDC, Hingna Road, Nagpur-440016

2023-2024



# LOKMANYA TILAK JANKALYAN SHIKSHAN SANSTHAS

# PRIVADARSHINI J L COLLEGE OF PHARMACY

(Formerly called; J. L. Chaturvedi College of Pharmacy) Electronic zone building, MIDC, Hingna Road, Nagpur-440016 (M.S.) Tel & Fax No. +91-7104-299510, Email: ilccpngp@rediffmail.com

Website: www.pjlcp.edu.in

(Approved by AICTE & New Delhi; Affiliated to R.T.M. Nagpur University, Nagpur) ACCREDITED WITH GRADE A+ BY NAAC

Dr. D. R. Chaple M. Pharm. Ph.D. Principal Priyadarshini J.L. College of Pharmacy, Nagpur-440016

# CERTIFICATE

This is to certify that the work investigations described in this thesis, entitled "One-Pot Synthesis of Some New Quinoline Derivatives and Their Biological Evaluation" submitted in partial fulfillment of requirement for degree of Master of Pharmacy in Pharmaceutical Chemistry, in the faculty of Science and Technology, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. The work is original as far as my knowledge concerned and not imitated from anywhere. This work has been carried out in laboratories of Priyadarshini J. L. College of Pharmacy, Nagpur, by Ms. Aishwarya V. Lichade under guidance of Dr. Dinesh P. Kawade Associate Professor Pharmaceutical Chemistry Department, Priyadarshini J L College of Pharmacy Nagpur.

This thesis is now ready for examination.

Place: Nagpur

Date: 24/06/2024

Dr. D. R. Chaple

# ONE-POT APPROACH FOR SYNTHESIS OF 1,4- DIHYDRO PYRIDINE DERIVATIVES BASED ON HANTZSCH REACTION

#### THESIS

Submitted in partial fulfillment of requirement for the degree of

MASTER OF PHARMACY

IN

# PHARMACEUTICAL CHEMISTRY

In the Faculty of Science and Technology Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur

By

Mr. Ashwin Umesh Rahangdale (B.Pharm)

Guide

Dr. Dinesh P. Kawade

(M.Pharm., Ph.D)





#### PRIYADARSHINI J L COLLEGE OF PHARMACY

Electronic Zone Building, MIDC, Hingna Road, Nagpm-440016

2023-2024



# LORMANYA TILAK JANKALYAN SHIKSHAN SANSTHAS PRIVADARSHINI J L COLLEGE OF PHARMACY

(Formerly called; J. L. Chaturvedi College of Pharmacy) Electronic zone building, MIDC, Hingna Road, Nagpur-440016 (M.S.) Tel & Fax No. +91-7104-299510, Email: ilccpngp@rediffmail.com

Website: www.pilcp.edu.io.

(Approved by AICTE & New Delhi; Affiliated to R.T.M. Nagpur University, Nagpur) ACCREDITED WITH GRADE A+ BY NAAC

Dr. D. R. Chaple M. Pharm. Ph.D. Principal Priyadarshini J.L. College of Pharmacy, Nagpur-440016

### CERTIFICATE

This is to certify that the work investigations described in this thesis, entitled "ONE-POT APPROACH FOR SYNTHESIS OF 1,4- DIHYDRO PYRIDINE DERIVATIVES BASED ON HANTZSCH REACTION" submitted in partial fulfillment of requirement for degree of Master of Pharmacy in Pharmaceutical Chemistry, in the faculty of Science and Technology, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. The work is original as far as my knowledge concerned and not imitated from anywhere. This work has been carried out in laboratories of Priyadarshini J. L. College of Pharmacy, Nagpur, by Mr. Ashwin Umesh Rahangdale under guidance of Dr. Dinesh P. Kawade Associate Professor Pharmaceutical Chemistry Department, Priyadarshini J L College of Pharmacy Nagpur.

This thesis is now ready for examination.

Place: Nagpur

Date: 02107 24

Dr. Dinesh R. Chaple

# DESIGN AND SYNTHESIS OF HYDRAZINO-1,3,4-THIADIAZOLE DERIVATIVESIVES FOR THEIR ANTI-INFLAMMATORY ACTIVITY

Thesis

Submitted in partial fulfillment of the requirement for the degree of

MASTER OF PHARMACY

In

#### PHARMACEUTICAL CHEMISTRY

In the Faculty of Science and Technology

Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur

Submitted

By

Ms. Dhanshree R. Bawane B. Pharm.

Guide

Dr. D. R. Chaple (M. Pharm., Ph.D.)





# PRIYADARSHINI J. L. COLLEGE OF PHARMACY

Electronic Zone Building, MIDC, Hingna road. Nagpur-440016 2023-2024



PRIYADARSHINI J. L. COLLEGE OF PHARMACY

(Formerly known as J. L. Chaturvedi College of Pharmacy)
Electronics Zone Building, MIDC, Hingna Road, Nagpur-440016 (M.S.) India
Tel No.: +91-7104 - 299510
E-mail principal@picp.edu.in, ibcpngp@gmail.com • Website: www.picp.edu.in

Accredited with Grade A+ by NAAC Institute Code: DTE 4265 & RTMNU 265



Dr. D. R. Chaple M. Pharm., Ph.D. Principal and Professor Priyadarshini J. L. College of Pharmacy, Nagpur-440016

# Certificate

This is to certify that the work investigation described in this thesis, entitled "Design and synthesis of hydrazino-1,3,4-thiadiazole derivatives for their anti-inflammatory activity" submitted in partial fulfillment of the requirement for the degree of Master of Pharmacy in Pharmaceutical Chemistry, in the Faculty of Science and Technology, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. The work is original as far as my knowledge is concerned and not imitated from anywhere. This work has been carried out in laboratories of the Priyadarshini J. L. College of Pharmacy, Nagpur, by Ms. Dhanshree R. Bawane under my guidance.

This thesis is now ready for examination.

Place: Nagpur

Date: 01/07/24

Dr. Dinesh R. Chaple
M.Pharm., Ph.D.
Guiderand Principal
Priyadarshini J. L. College of
Pharmacy, Nagpur.

### Design, Synthesis, and Pharmacological Evaluation of Thiazole Derivatives as Glucokinase Activator

#### THESIS

Submitted in partial fulfillment of the requirement for the degree of

#### MASTER OF PHARMACY

IN

### PHARMACEUTICAL CHEMISTRY

In the faculty of Science and Technology Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur

By

Shweta V. Rane

(B. Pharm.)

Guide

Dr. Dinesh R. Chaple

(M. Pharm., Ph.D.)





PRIYADARSHINI J.L. COLLEGE OF PHARMACY ELECTRONIC ZONE BUILDING, MIDC, HINGNA ROAD, NAGPUR-440016 2023-2024



# LORMANYA TILAK JANKALYAN SHIKSHAN SANSTHAS

# PRIYADARSHINI J L COLLEGE OF PHARMACY

(Formerly called; J. L. Chaturvedi College of Pharmacy)

Electronic zone Building, MIDC, Hingna Road, Nagpur-440016 (M.S.)

Tel & Fax No. +91-7104-299510, Email: ilccpngp@rediffmail.com Website: www.pilcp.edu.in

(Approved by AICTE & New Delhi; Affiliated to R.T.M. Nagpur University, Nagpur)

ACCREDITED WITH GRADE A' BY NAAC

Dr. Dinesh. R. Chaple M. Pharm., Ph.D. Principal and Professor, Priyadarshini J. L. College of Pharmacy, Nagpur- 440016

# CERTIFICATE

This is to certify that the work investigations described in this thesis, entitled "Design, Synthesis, and Pharmacological Evaluation of Thiazole Derivatives as Glucokinase Activator" submitted in partial fulfillment of the requirement for the degree of Master of Pharmacy in Pharmaceutical Chemistry, in the faculty of Science and Technology, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. The work is original as far as my knowledge is concerned and not imitated from anywhere. This work has been carried out in laboratories of Priyadarshini J. L. College of Pharmacy, Nagpur, by Ms. Shweta V. Rane under my guidance. This thesis is now ready for examination.

Place: Nagpur

Date: 24/06/2024

Dr. Dinesh R. Chaple

# EXTRACTION, PHYTOCHEMICAL CHARACTERIZATION AND ANTIOXIDANT STUDY OF KODO MILLET

#### THESIS

For the approval of the topic of the thesis to be submitted in partial fulfillment of the requirement for the degree of

#### MASTER OF PHARMACY

IN

#### PHARMACEUTICAL CHEMISTRY

In the Faculty of Science and Technology

Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur.

Research Scholar

MR. SAHIL D. GAYAKWAD

(B. Pharm)

Research Guide

DR. DINESH. R. CHAPLE

(M. Pharm, Ph.D.)





PRIYADARSHINI J.L. COLLEGE OF PHARMACY,

ELECTRONIC ZONE BUILDING, MIDC, HINGNA ROAD, NAGPUR – 440016

2023-2024



#### LORMANYA TILAK JANKALYAN SHIKSHAN SANSTHAN

#### PRIVADARSHINI J. L. COLLEGE OF PHARMACY

(Formerly called J. L. Chaturvedi College of Pharmacy)
Electronic Zone Building, MIDC, Hingna Road, Nagpur-440016 (M.S)
Tel & Fax No. +91-7104-299510, Email: jlcpngp@gmai.om Website:

www.pjlcp.edu.in

(Approved by AICTE & New Delhi: Affiliated to R.T.M Nagpur University, Nagpur)

ACCREDITED WITH GRADE A' BY NAAC

Dr. Dinesh R. Chaple

M. Pharm, Ph.D.

Principal and Professor,

Privadarshini J. L. College of Pharmacy,

Nagpur-440016.

# CERTIFICATE

This is to certify that the work investigations described in this thesis, entitled "Extraction Phytochemical Characterization and Antioxidant Study of Kodo Millet" submitted in partial fulfillment of the requirement for the degree of Master of Pharmacy in Pharmaceutical Chemistry, in the faculty of Science and Technology, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. The work is original as far as my knowledge is concerned and not imitated from anywhere. This work has been carried out in Priyadarshini J. L. College of Pharmacy laboratories, Nagpur, by Mr. Sahil D. Gayakwad under my guidance.

This thesis is now ready for examination.

Place: Nagpur

Date: 04/07/24

Dr. Dinesh R. Chaple

Principal

# DESIGN, SYNTHESIS, AND PHARMACOLOGICAL EVALUATION OF 3-FORMYL CHROMONE DERIVATIVES FOR ALZHEIMER DISEASE

THESIS

Submitted in partial fulfillment of the requirement for the degree of

MASTER OF PHARMACY

IN

### PHARMACEUTICAL CHEMISTRY

In the Faculty of Science and Technology

Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur

Submitted

By

Mr. Aniket V. Murkute
(B. Pharm)

Guide

Dr. Dinesh R. Chaple (M. Pharm., Ph.D.)





#### PRIYADARSHINI J. L. COLLEGE OF PHARMACY

Electronic Zone Building, MIDC, Hingna road, Nagpur-440016 2023-2024



LEWINARYATTLAK LANKALYAN SHITKISLAN SAMPTILAN

### PRIYADARSHINI J. L. COLLEGE OF PHARMACY

(Formerly known as J. L. Chaturwedi College of Pharmacy) Electronics Zone Building, MIDC, Hingra Road, Nagpur-440015 (M.S.) India Tel. No. +957/094 - 2895/0

E-mail principalifysing actual impropriymation + fribally www. plop actual According with Grade Arr by NIAC Institute Code: DTE 4265 & RTMNU 265



Dr. Dinesh R. Chaple M. Pharm., Ph.D. Principal and Professor

### CERTIFICATE

This is to certify that the work investigation described in this thesis, entitled "Design, Synthesis, and Pharmacological Evaluation of 3-formyl Chromone Derivatives for Alzheimer Disease" submitted in partial fulfilment of the requirement for the degree of Master of Pharmacy in Pharmaceutical Chemistry, in the Faculty of Science and Technology, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. The work is original as far as my knowledge is concerned and not imitated from anywhere. This work has been carried out in laboratories of the Priyadarshini J. L. College of Pharmacy, Nagpur, by Mr. Aniket Vinod Murkute under my guidance Dr. D. R. Chaple, Principal & Professor, Priyadarshini J. L. College of Pharmacy, Nagpur.

This thesis is now ready for examination.

Place: Hagpar
Date: UM OH 24

Dr. Dinesh R. Chaple

(Principal)

# EXTRACTION, PHYTOCHEMICAL CHARACTERIZATION AND ANTIMICROBIAL STUDY OF FINGER MILLET

#### THESIS

For the approval of the topic of the thesis to be submitted in partial fulfillment of the requirement for the degree of

MASTER OF PHARMACY

IN

#### PHARMACEUTICAL CHEMISTRY

In the Faculty of Science and Technology

Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur.

Research Scholar

MISS, PRANITA I, RATHOD

(B. Pharm)

Research Guide

DR. DINESH. R. CHAPLE

(M. Pharm, Ph.D.)





PRIYADARSHINI J.L. COLLEGE OF PHARMACY,

ELECTRONIC ZONE BUILDING, MIDC, HINGNA ROAD, NAGPUR - 440016

2023-2024



#### LOKMANYA TILAK JANKALYAN SHIKSHAN SANSTHAN

#### PRIVADARSHINI J. L. COLLEGE OF PHARMACY

(Formerly called J. L. Chaturvedi College of Pharmacy)
Electronic Zone Building, MIDC, Hingna Road, Nagpur-440016 (M.S)
Tel & Fax No. +91-7104-299510,Email: <u>plepnep@emai.om</u> Website:

(Approved by AICTE & New Delhi: Affiliated to R.T.M Nagpur University,
Nagpur)
ACCREDITED WITH GRADE A\* BY NAAC

Dr. Dinesh R. Chaple

M. Pharm. Ph.D.

Principal and Professor,

Priyadarshini J. L. College of Pharmacy,

Nagpur-440016.

# **CERTIFICATE**

This is to certify that the work investigations described in this thesis, entitled "Extraction, Phytochemical Characterization and Antimicrobial Study of Finger Millet" submitted in partial fulfillment of the requirement for the degree of Master of Pharmacy in Pharmaceutical Chemistry, in the faculty of Science and Technology, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. The work is original as far as my knowledge is concerned and not imitated from anywhere. This work has been carried out in Priyadarshini J. L. College of Pharmacy laboratories. Nagpur, by Ms. Pranita I. Rathod under my guidance.

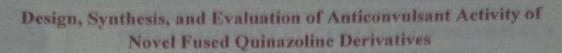
This thesis is now ready for examination.

Place: Nagpur

Date: 01/07/ 2024

Dr. Dinesh R. Chaple

Principal Privadershini J. L. College of Pharmacy, Nagpur.



#### THESIS

Submitted in partial fulfillment of requirement for the degree of

#### MASTER OF PHARMACY

IN

### PHARMACEUTICAL CHEMISTRY

In the Faculty of Science and Technology

Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur

By

Mr. Swaraj R. Wankhede

(B.Pharm.)



Guide

Dr. Dinesh. R. Chaple

(M.Pharm., Ph.D.)



Priyadarshini J. L. College of Pharmacy

Electronic Zone Building, MIDC, Hingna Road, Nagpur-440016

2022-2023



#### LOKMANYA TILAK JANKALYAN SHIKSHAN SANSTHAS

#### PRIVADARSHINI J L COLLEGE OF PHARMACY

(Formerly called; J. L. Chaturvedi College of Pharmacy)

Electronic zone Building, MIDC, Hingna Read, Nagpur-440016 (M.S.)

Tel & Fax No. +91-7104-299510, Email: <u>ilecpngp@rediffmail.com</u> Website: <u>www.pilcp.edu.in</u>
(Approved by AICTE & New Delhi; Affiliated to R.T.M. Nagpur University, Nagpur)

ACCREDITED WITH GRADE B\*\* BY NAAC

Dr. D.R. Chaple
M. Pharm. Ph.D.
Principal and Professor,
Priyadarshini J. L. College of Pharmacy,
Nagpur- 440016.

#### CERTIFICATE

This is to certify that the work investigations described in this thesis, entitled "Design, Synthesis, and Evaluation of Anticonvulsant Activity of Novel Fused Quinazoline Derivatives" submitted in partial fulfillment of requirement for degree of master of pharmacy in pharmaceutical chemistry, in the faculty of Science and Technology, Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur. The work is original as far as my knowledge concerned and not imitated from anywhere. This work has been carried out in laboratories of Priyadarshini J.L. College of Pharmacy, Nagpur, by Mr. Swaraj R. Wankhede under guidance of Dr. Dinesh R. Chaple Principal and Professor of Pharmaceutical Chemistry Department, Priyadarshini J.L. College of Pharmacy Nagpur.

This thesis is now ready for examination.

Place: Nagpur

Date: 28/05/2023

Dr. Dinesh R. Chaple

# DESIGN, SYNTHESIS, CHARACTERIZATION, AND BIOLOGICAL EVALUATION OF THIAZOLO[3,2-a]PYRIMIDINE DERIVATIVES

THESIS

For the approval of the topic of the thesis to be submitted in partial fulfillment of the requirement for the degree of

MASTER OF PHARMACY

IN

PHARMACEUTICAL CHEMISTRY

In the Faculty of Science and Technology

Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur.

Research Scholar

MISS. BHAGYASHRI S. PATIL

(B. Pharm)

Research Guide

DR. DINESH. R. CHAPLE

(M. Pharm, Ph.D.)





PRIYADARSHINI J.L. COLLEGE OF PHARMACY,

ELECTRONIC ZONE BUILDING, MIDC, HINGNA ROAD, NAGPUR – 440016

2023-2024



#### LOKMANYA TILAK JANKALYAN SHIKSHAN SANSTHAN PRIVADARSHINI J. L. COLLEGE OF PHARMACY

(Formerly called J. L. Chaturvedi College of Pharmacy) Electronic Zone Building, MIDC, Hingna Road, Nagpur-440016 (M.S) Tel & Fax No. +91-7104-299510, Email: jlcpngp@gmai..om Website:

www.pilcp.edu.in

(Approved by AICTE & New Delhi: Affiliated to R.T.M Nagpur University, Nagpur)

ACCREDITED WITH GRADE A" BY NAAC

Dr. Dinesh R. Chaple

M. Pharm, Ph.D.

Principal and Professor.

Priyadarshini J. L. College of Pharmacy,

Nagpur-440016.

# CERTIFICATE

This is to certify that the work investigations described in this thesis, entitled "Design, Synthesis, Characterization, and Biological Evaluation of Thiazolo [3,2-a] pyrimidine Derivatives" submitted in partial fulfillment of the requirement for the degree of Master of Pharmacy in Pharmaceutical Chemistry, in the faculty of Science and Technology, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. The work is original as far as my knowledge is concerned and not imitated from anywhere. This work has been carried out in Priyadarshini J. L. College of Pharmacy laboratories. Nagpur, by Ms. Bhagyashri S. Patil under my guidance.

This thesis is now ready for examination.

Place: Nagpur

Date: 21/06/24

Dr. Dinesh R. Chaple

Principal Priyadarshini J. L. College of Pharmacy, Nagpur.

Development and Validation of Stability Indicating Analytical Methods for Estimation of Azilsartan Medoximal Potassium and Related Impurities in API and Formulation by Using the AQbD Approach

#### THESIS

Submitted in partial fulfillment of the requirement for the Degree of

# MASTER OF PHARMACY IN PHARMACEUTICAL CHEMISTRY

In the Faculty of Science and Technology.

Rashtrashant Tukdoji Maharaj Nagpur University, Nagpur

Submitted By

ANIRUDH SHYAM NARAYAN MISHRA B. Pharm

Guide

DR. (MRS.) ALPANA J. ASNANI M. Pharm, Ph. D.





PRIYADARSHINI J. L. COLLEGE OF PHARMACY ELECTRONIC ZONE BUILDING, MIDC, HINGNA ROAD NAGPUR-440016 2023-2024





#### PRIYADARSHINI J. L. COLLEGE OF PHARMACY

(Formerly called J. L. Chaturvedi College of Pharmacy)

Electronics Zone Building, MfDC, Hingna Road, Nagpur-440016 (M.S.)

Tel & Fax No. +91-7104-242169, E-mail jlccp\_ngp@rediffmail.com. Website:

www.jlccp.ltjss.net

(Approved By AICTE & DTE, New Delhi; Affiliated to R.T.M. Nagpur University Nagpur)

Dr. D. R. Chaple

Principal,

M. Pharm., Ph. D

Priyadarshini J. L. College of Pharmacy, Nagpur- 440016.

#### CERTIFICATE

This is certify that the work investigation described in this dissertation entitled "Development and Validation of Stability Indicating Analytical Methods for Estimation of Azilsartan Medoximal Potassium and Related Impurities in API and Formulation by Using the AQbD Approach" is submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy in Pharmaceutical Chemistry, in the faculty of Science and Technology, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. This work is original as far as my knowledge is concerned and not imitated from anywhere. This work has been carried out in laboratories of the Priyadarshini J. L. College of Pharmacy, Nagpur, by Mr. Anirudh S. Mishra, under the guidance and supervision of Dr. Mrs. Alpana J. Asnani, Priyadarshini J. L. College of Pharmacy, Nagpur.

This dissertation is now ready for examination.

Place: Nagpur

Date: 06/06/2024

Dr. D. R. Chaple

### Design, One-Pot Synthesis and Pharmacological Studies of 1,2,4-Oxadiazole Derivatives

#### THESIS

submitted in partial fulfillment of the requirement for the degree of

#### MASTER OF PHARMACY

IN

#### PHARMACEUTICAL CHEMISTRY

In the Faculty of Science and Technology

Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur.

By

Ms. Priyanka B. Khedekar B. PHARM

Guide

Dr. Mrs. Alpana J. Asnani M. PHARM, PH.D.





PRIYADARSHINI J.L. COLLEGE OF PHARMACY,
ELECTRONIC ZONE BUILDING, MIDC, HINGNA ROAD, NAGPUR-440016
2023-24



## LORMANYA TILAK JANKALYAN SHIKSHAN SANSTHAS

# PRIYADARSHINI J L COLLEGE OF PHARMACY

(Formerly called; J. L. Chaturvedi College of Pharmacy)

Electronic zone Building, MIDC, Hingna Road, Nagpur-440016 (M.S.)

Tel & Fax No. +91-7104-299510, Email: ilcongp@rediffmail.com Website:

www.pilcp.edu.in (Approved by AICTE & New Delhi; Affiliated to R.T.M. Nagpur University,

Nagpur) ACCREDITED WITH GRADE A\*\* BY NAAC

Dr. D. R. Chaple
M. Pharm., Ph.D.
Principal and Professor,
Priyadarshini J. L. College of Pharmacy,
Nagpur.

#### CERTIFICATE

This is to certify that the work investigations described in this thesis, entitled "Design, One-Pot Synthesis and Pharmacological Studies of 1, 2, 4-Oxadiazole Derivatives" submitted in partial fulfillment of requirement for degree of Master of Pharmacy in Pharmaceutical Chemistry, in the faculty of Science and Technology, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. The work is original as far as my knowledge concerned and not imitated from anywhere. This work has been carried out in laboratories of Priyadarshini J. L. College of Pharmacy, Nagpur, by Ms. Priyanka B. Khedekar under guidance of Dr. (Mrs.) A. J. Asnani Professor and Head of Pharmaceutical Chemistry Department, Priyadarshini J. L. College of Pharmacy, Nagpur.

This thesis is now ready for examination.

Place: Nagpur

Date: 24/06/2024

Dr. Dinesh R. Chaple

# Design, Synthesis and Pharmacological Screening of 4H-3,1-Benzoxazin-4-one Derivatives

### THESIS

Submitted in partial fulfillment of requirement for the degree of

# MASTER OF PHARMACY

IN

# PHARMACEUTICAL CHEMISTRY

In the Faculty of Science and Technology

# Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur Submitted

By

Ms. Vaishnavi S. Bhure

(B. Pharm)

Guide

Dr. Mrs. A. J. Asnani

(M. pharm, Ph.D.)





# PRIYADARSHINI J. L. COLLEGE OF PHARMACY

Electronic Zone Building, MIDC, Hingna Road, Nagpur 440016 2023-2024



#### LOKMANYA TILAK JANKALYAN SHIKSHAN SANSTHAS

## PRIYADARSHINI J L COLLEGE OF PHARMACY

(Formerly called, J. L. Chatarvedi College of Pharmacy
Electronic zone Building, MIDC, Hingma Road, Nagpur-440016 (M.S.)

Tel & Fax No. +91-7104-299510, Email: <u>Jicopago Gred Haull com</u> Website: www.gijcp.edu.in
(Approved by AICTE & New Delhi, Affiliated to R.T.M. Nagpur University, Nagpur)

ACCREDITED WITH GRADE A' BY NAAC

Dr. D. R. Chaple
M. Pharm., Ph.D.
Principal and Professor,
Priyadarshini J. L. College of Pharmacy,
Nagpur-440016.

#### CERTIFICATE

This is to certify that the work investigations described in this thesis, entitled "Design, Synthesis and Pharmacological Screening of 4H-3,1-Benzoxazin-4-one Derivatives" submitted in partial fulfilment of requirement for degree of Master of Pharmacy in Pharmaceutical Chemistry, in the faculty of Science and Technology, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. The work is original as far as my knowledge concerned and not imitated from anywhere. This work has been carried out in laboratories of Priyadarshini J. L. College of Pharmacy, Nagpur, by Ms. Vaishnavi S. Bhure under guidance of Dr. (Mrs.) A. J. Asnani Professor and Head of Pharmaceutical Chemistry Department, Priyadarshini J. L. College of Pharmacy, Nagpur.

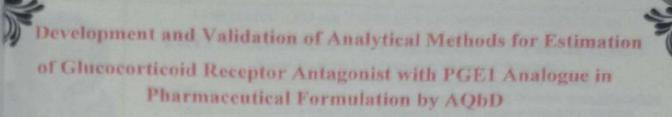
This thesis is now ready for examination.

Place: Nagpur

Date: 21/05/24

Dr. Dinesh R. Chaple

Privadarshini J. L. College of Pharmacy, Nagpur.



#### THESIS

Submitted in partial fulfillment of the requirement for the degree of

#### MASTER OF PHARMACY

IN

#### PHARMACEUTICAL CHEMISTRY

In the Faculty of Science and Technology

Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur Submitted

By

Ms. Namrata D. Dhote

(B. Pharm)

Guide

Dr. Mrs. A. J. Asnani

(M. pharm, Ph.D.)





### PRIYADARSHINI J. L. COLLEGE OF PHARMACY

Electronic Zone Building, MIDC, Hingna Road, Nagpur-440016 2023-2024



## LORMANYA TILAK JANKALYAN SHIKSHAN SANSTHAS



# PRIYADARSHINI J L COLLEGE OF PHARMACY

(Formerly called; J. L. Chaturvedi College of Pharmacy)

Electronic zone Building, MIDC, Hingna Road, Nagpur-440016 (M.S.)

Tel & Fax No. +91-7104-299510, Email: ilccpnapt@rediffmail.com Website: www.pilcp.edu.in
(Approved by AICTE & New Delhi; Affiliated to R.T.M. Nagpur University, Nagpur)

ACCREDITED WITH GRADE A BY NAAC

Dr. D. R. Chaple
M. Pharm., Ph.D.
Principal and Professor,
Priyadarshini J. L. College of Pharmacy,
Nagpur-440016.

#### **CERTIFICATE**

This is to certify that the work investigations described in this thesis, entitled "Development and Validation of Analytical Methods for Estimation of Glucocorticoid Receptor Antagonist with PGE1 Analogue in Pharmaceutical Formulation by AQbD" submitted in partial fulfillment of requirement for degree of Master of Pharmacy in Pharmaceutical Chemistry, in the faculty of Science and Technology, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. The work is original as far as my knowledge is concerned and not imitated from anywhere. This work has been carried out in laboratories of Priyadarshini J. L. College of Pharmacy, Nagpur, by Ms. Namrata D. Dhote under the guidance of Dr. (Mrs.) A. J. Asnani Professor and Head of Pharmaceutical Chemistry Department, Priyadarshini J. L. College of Pharmacy, Nagpur.

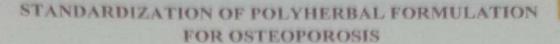
This thesis is now ready for examination.

Place: Nagpur

Date: 04/07/24

Dr. Dinesh R. Chaple

(Principal)



#### THESIS

#### SUBMITTED TO

Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.

In Partial Fulfillment of Requirements for The Degree of

MASTER OF PHARMACY

IN

PHARMACOGNOSY

**Submitted By** 

Jayashri B.Telmasare

(B. Pharm)

#### Guide

Dr. Mrs. Sonal P. Motghare

(M. Pharm, Ph.D.)





PRIYADARSHINI J.L. COLLEGE OF PHARMACY,

ELECTRONIC ZONE BUILDING, M.I.D.C., HINGNA ROAD,

NAGPUR -440016.

(2023 - 2024)

# Priyadarshini J.L. College of Pharmacy, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur. 2023-2024



Dr. D.R. Chaple (M. Pharm., Ph.D.) Principal Priyadarshini J.L. College of Pharmacy, Nagpur-440016.

#### CERTIFICATE

This is to certify that the work investigation described in this dissertation entitled, "Standardization of polyherbal formulation for osteoporosis." submitted in the partial fulfillment of the degree of Master of Pharmacy in Pharmacognosy, in the faculty of Science and Technology, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur. This work has not been carried out in any other university. This work has been carried out in laboratories of Priyadarshini J.L. College of Pharmacy, Nagpur by Miss.Jayashri B.Telmasare, under the guidance and supervision of Dr. Mrs. Sonal P. Motghare.

This dissertation is now ready for examination.

Place: Nagpur

Date: 06/07/24

Dr. D. R. Chaple

(Principal)

# STANDARDIZATION AND COMPARATIVE EVALUATION OF MARKATED LOHASAVA

#### THESIS

#### SUBMITTED TO

Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur. In Partial Fulfillment of Requirements for the Degree of

MASTER OF PHARMACY

IN

PHARMACOGNOSY

Submitted By

Swapnil S. Tirmanwar

(B. Pharm)

Guide

Dr. Mrs. Sonal P. Motghare

(M.Pharm, Ph.D.)





PRIYADARSHINI J.L. COLLEGE OF PHARMACY,

ELECTRONIC ZONE BUILDING, M.I.D.C., HINGNA ROAD,

NAGPUR -440016.

(2023 - 2024)

# Priyadarshini J.L. College of Pharmacy, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur. 2023-2024



Dr. D.R. Chaple (M. Pharm., Ph.D.) Principal Priyadarshini J.L. College of Pharmacy, Nagpur-440016.

#### CERTIFICATE

"STANDARDIZATION AND COMPARATIVE EVALUATION OF MARKATED LOHASAVA." submitted in the partial fulfillment of the degree of Master of Pharmacy in Pharmacognosy, in the faculty of Science and Technology, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur. This work has not been carried out in any other university. This work has been carried out in laboratories of Priyadarshini J.L. College of Pharmacy, Nagpur by Mr. Swapnil S. Tirmanwar, under the guidance and supervision of Dr. Mrs. Sonal P. Motghare

This dissertation is now ready for examination.

Place: Nagpur

Date: 01/0+24

Dr. D. R. Chaple

(Principal)

# COMPARATIVE EVALUATION OF WILD AND CULTIVATED VARIETY OF EMBLICA OFFICINALIS GAERTN PLANT.

## THESIS

# SUBMITTED TO

Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur. In Partial Fulfillment of Requirements for the Degree of

The state of the Begree of

MASTER OF PHARMACY

IN

PHARMACOGNOSY

Submitted By

Pooja Subhash Tarahane
(B. Pharm)

Guide

Dr. Mrs. Sonal P. Motghare (M. Pharm, Ph.D.)





PRIYADARSHINI J.L. COLLEGE OF PHARMACY,

ELECTRONIC ZONE BUILDING, M.I.D.C., HINGNA ROAD,

NAGPUR -440016.

(2023 -2024)

Priyadarshini J.L. College of Pharmacy, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur. 2023-2024



Dr. D.R. Chaple (M. Pharm., Ph.D.) Principal Priyadarshini J.L. College of Pharmacy, Nagpur-440016.

# CERTIFICATE

This is to certify that the work investigation described in this dissertation entitled, "Comparative evaluation of wild and cultivated variety of Emblica officinalis Gaertn plant." submitted in the partial fulfillment of the degree of Master of Pharmacy in Pharmacognosy, in the faculty of Science and Technology, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur. This work has not been carried out in any other university. This work has been carried out in laboratories of Priyadarshini J.L. College of Pharmacy, Nagpur by Miss. Pooja S. Tarahane, under the guidance and supervision of Dr. Mrs. Sonal P. Motghare

This dissertation is now ready for examination.

Place: Nagpur

Date: 01/0+24

Dr. D. R. Chaple

(Principal)

PRINCIPAL Priyadarshini J. L. Collect Pharmacy, Nagpur.

# FORMULATION AND CHARACTERIZATION OF EXTENDED-RELEASE TABLET USING POLYVINYL ALCOHOL POLYMER

# A DISSERTATION

Submitted For the approval of the thesis/synopsis topic to be submitted in the partial

fulfilment of the requirement for the degree of

Master in Pharmacy

#### **Pharmaceutics**

in the Faculty of Science and Technology Rashtrasant Tukadoji Maharaj Nagpur University,

Nagpur

Submitted by

Ashish B. Belsare

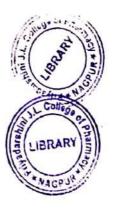
(B. Pharm)

Research Guide

Dr. Mrs.G.R. Dixit

(M. Pharm, Ph.D.)





Priyadarshini J. L. College of Pharmacy

Electronic Zone Building, M. I. D. C., Hingna Road, Nagpur -440016

2023-2024



# LOKMANYA TILAK JANKALYAN SHIKSHAN SANSTHA'S

# PRIYADARSHINI J. L. COLLEGE OF PHARMACY

Electronics Zone Building, MIDC, Hingna Road, Nagpur-440016 (M.S.

Dr. D. R. Chaple M. Pharm., Ph. D. Principal, Priyadarshini J. L. College of Pharmacy, Nagpur- 440016.

#### CERTIFICATE

This is to certify that the work investigations described in this thesis, entitled "FORMULATION AND CHARACTERIZATION OF EXTENDED RELEASE TABLET USING POLYVINYL ALCOHOL POLYMER" submitted in partial fulfillment of the requirement for degree of Master of Pharmacy in Pharmaceutics, in the faculty of Science and Technology, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. The work is original as far as my knowledge is concerned and not imitated from anywhere. This work has been carried out in laboratories of the Priyadarshini J. L. College of Pharmacy, Nagpur, by Mr. Ashish B. Belsare under the guidance of Dr Mrs G.R Dixit Professor of Pharmaceutics Department, Priyadarshini J. L. College of Pharmacy, Nagpur.

This dissertation is now ready for examination.

Place: Nagpur

Date: 03/07/24

Dr. D. R. Chaple (Principal)

# FORMULATION AND EVALUATION OF DENTAL INSERT CONTAINING ANTIBIOTIC FOR THE TREATMENT OF CHRONIC PERIODONTITIS

## A DISSERTATION

Submitted in partial fulfillment of the requirement for the Degree of

## MASTER OF PHARMACY

IN

# **PHARMACEUTICS**

In the faculty of Science and Technology Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur

Submitted By
Ms. Pooja R. Dhenge
(B. Pharm)

Research Guide
Dr. Mrs. Suparna S. Bakhle
(M. Pharm, Ph. D)





## **DEPARTMENT OF PHARMACEUTICS**

PRIYADARSHINI J. L. COLLEGE OF PHARMACY

ELECT IC ZONE BUILDING, M.I.D.C., HINGNA ROAD, NAGPUR-440016 (2023-24)



Dr. D. R. Chaple

(M. Pharm, Ph. D)

Principal,

Priyadarshini J. L. College of Pharmacy,

Nagpur- 440016.

# **CERTIFICATE**

This is to certify that the investigations described in this dissertation, entitled "Formulation and Evaluation of Dental Insert Containing Antibiotic for the Treatment of Chronic Periodontitis" is submitted in partial fulfillment for the degree of Master of Pharmacy in Pharmaceutics, in the faculty of Science and Technology, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. This work is original as far as my knowledge is concerned and not imitated from anywhere. This work had been carried out in laboratory of Priyadarshini J. L. College of Pharmacy, Nagpur, by Ms. Pooja R. Dhenge, under the guidance and supervision of Dr. Mrs. Suparna S. Bakhle, Professor, Priyadarshini J. L. College of Pharmacy, Nagpur.

This dissertation is now ready for examination.

Date: 01/07/24 Place: Nagpur

Dr. D. R. Chaple (Principal)

PRINCIPAL

Pharmacy, Nagpur.

# DEVELOPMENT AND EVALUATION OF SUNSCREEN GEL LOADED WITH MICROSPONGES OF CURCUMIN AND LYCOPENE

 $A\ DISSERTATION$  Submitted in the partial fulfilment of the requirement for the degree of

MASTER OF PHARMACY

IN

# **PHARMACEUTICS**

In the Faculty of Science and Technology

Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur

Submitted by

Miss. Anuradha A. Dhokpande

(B. Pharm)

Research guide

Dr. Mrs. Kanchan P. Upadhye

(M. Pharm, Ph.D.)





# Priyadarshini J. L. College of Pharmacy

Electronic Zone Building, M. I. D. C, Hingna Road, Nagpur -440016.

(2023 - 2024)

# PRIYADARSHINI J. L. COLLEGE OF PHARMACY,

ELECTRONIC ZONE BUILDING, M.I.D.C., HINGNA ROAD, NAGPUR [1440016]



2023-2024

Dr. D. R. Chaple

M. Pharm. Ph. D. Principal

Priyadarshini J. L. College of Pharmacy Nagpur - 440016

# CERTIFICATE

This is to certify that the work investigation described in this dissertation, entitled "DEVELOPMENT AND EVALUATION OF SUNSCREEN GEL LOADED WITH MICROSPONGES OF CURCUMIN AND LYCOPENE" is submitted in the partial fulfilment of the requirements for the degree of Master of Pharmacy in Pharmaceutics, in the faculty of science and technology, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. The work has been carried out in laboratories of the Priyadarshini J. L. College of Pharmacy, Nagpur by Miss. Anuradha Anil Dhokpande, under the guidance and supervision of Dr.Mrs.K.P.Upadhye, Head of Department Priyadarshini J. L. College of Pharmacy, Nagpur.

The dissertation is now ready for examination.

Place: Nagpur

Date: 01107124

Dr. D. R. Chaple

(Principal)

PRINCIPAL
Priyadarshini J. L. College of
Pharmacy, Nagpur.

# FORMULATION AND EVALUATION OF FAST DISINTEGRATION SUBLINGUAL TABLET FOR ANTIDIABETIC DRUG BY USING NATURAL POLYMER

#### THESIS

Submitted for the approval of thesis in partial fulfillment of requirements for the degree of

### MASTER OF PHARMACY

#### IN

#### **PHARMACEUTICS**

In the Faculty of Science and Technology,
Rashtra Sant Tukdoji Maharaj, Nagpur University, Nagpur.

Submitted by

Laxman M. Sahu

(B. Pharm.)

Research Guide

Dr. R.H. Kasliwal

(M. Pharm, Ph.D.)





# PRIYADARSHINI J. L. COLLEGE OF PHARMACY

Electronic Zone Building, MIDC, Hingna Road, Nagpur-440016 2023 – 2024



# LOKMANYA TILAK JANKALYAN SHIKSHAN SANSTHAS

# PRIYADARSHINI J. L. COLLEGE OF PHARMACY

(Formerly called; J. L. Chaturvedi College of Pharmacy)

Electronic zone Building, MIDC, Hingna Road, Nagpur-440016 (M.S.)

Tel & Fax No. +91-7104-299510, Email: <a href="mailto:ilcopngp@rediffmail.com">ilcopngp@rediffmail.com</a> Website: <a href="www.pilcp.edu.in">www.pilcp.edu.in</a>

(Approved by AICTE & New Delhi; Affiliated to R.T.M. Nagpur University, Nagpur)

ACCREDITED WITH GRADE B \*\* BY NAAC

Dr. D. R. Chaple M. Pharm., Ph.D. Principal Priyadarshini J. L. College of Pharmacy, Nagpur-440016.

# **CERTIFICATE**

This is to certify that the work investigations described in this thesis, entitled "FORMULATION AND EVALUATION OF FAST DISINTEGRATION SUBLINGUAL TABLET FOR ANTIDIABETIC DRUG BY USING NATURAL POLYMER" submitted in partial fulfillment of the requirement for the degree, Rashtra Sant Tukadoji Maharaj Nagpur University, Nagpur. The work is original as far as my knowledge is concerned and not imitated from anywhere. This work has been carried out in laboratories of Priyadarshini J. L. College of Pharmacy, Nagpur, by Mr. Laxman M. Sahu under the guidance of Dr. R.H. Kasliwal Associate Professor, Department of Pharmaceutics, Priyadarshini J. L. College of Pharmacy, Nagpur.

This thesis is now ready for examination.

Place: Nagpur

Date: 01/07/24

Dr. Dinesh R. Chaple

(Principal)
PRINCIPAL
Priyadarshini J. L. College of
Pharmacy, Nagpur.

# FORMULATION AND EVALUATION OF A PERIODONTAL DRESSING CONTAINING AN ANTIBIOTIC AGENT TO OVERCOME POST-SURGICAL COMPLICATIONS OF PERIODONTAL SURGERY

#### THESIS

Submitted in partial fulfillment of requirements for the degree of

# MASTER OF PHARMACY

IN

#### PHARMACEUTICS

In the Faculty of Science and Technology, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.

Submitted by

Nikita D. Shukla

(B. Pharm.)

Research Guide

Dr. Mrs. K. P. Upadhye

(M. Pharm, Ph.D.)





Priyadarshini J. L. College of Pharmacy

Electronic Zone Building, MIDC, Hingna Road, Nagpur-440016

2023 – 2024



### LOKMANYA TILAK JANKALYAN SHIKSHAN SANSTHAS

# PRIYADARSHINI J. L. COLLEGE OF PHARMACY

(Formerly called; J. L. Chaturvedi College of Pharmacy)
Electronic zone Building, MIDC, Hingna Road, Nagpur-440016 (M.S.)
Tel & Fax No. +91-7104-299510, Email: <a href="mailto:jlccpngp@rediffmail.com">jlccpngp@rediffmail.com</a> Website: <a href="www.pjlcp.edu.in">www.pjlcp.edu.in</a>
(Approved by AICTE & New Delhi; Affiliated to R.T.M. Nagpur University, Nagpur)

ACCREDITED WITH GRADE A+ BY NAAC

Dr. D. R. Chaple
M. Pharm., Ph.D.
Principal and Professor,
Priyadarshini J. L. College of Pharmacy,
Nagpur

# **CERTIFICATE**

"Formulation and Evaluation of a Periodontal Dressing Containing an Antibiotic Agent to Overcome Post-Surgical Complications of Periodontal Surgery" submitted in partial fulfillment of the requirement for the degree of Master of Pharmacy in Pharmaceutics, in the faculty of Science and Technology, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. The work is original as far as my knowledge is concerned and not imitated from anywhere. This work has been carried out in laboratories of Priyadarshini J. L. College of Pharmacy, Nagpur, by Ms. Nikita D. Shukla under the guidance of Dr. (Mrs.) K. P. Upadhye, Professor and Head of Pharmaceutics Department, Priyadarshini J. L. College of Pharmacy, Nagpur.

This thesis is now ready for examination.

Place: Nagpur

Date: 01/07/24

Dr. Dinesh R. Chaple

(Principal)

PRINCIPAL
Priyadarshini J. L. College of
Pharmacy, Nagpur.

# FORMULATION AND CHARACTERIZATION OF NANO- MUCOADHESIVE TABLET FOR VAGINAL DELIVERY

A DISSERTATION

Submitted for the approval of thesis in partial fulfilment of requirements for Degree of

MASTER OF PHARMACY

IN

### **PHARMACEUTICS**

In the Faculty of Science and Technology,

Rashtrasant Tukadoji MaharajNagpur University, Nagpur

Submitted By Kajal Kumari S. Prasad (B. Pharm)

> Research Guide Dr. Mrs. G. R. Dixit (M. Pharm, Ph. D)





PRIYADARSHINI J. L. COLLEGE OF PHARMACY
ELECTRONIC ZONE BUILDING, MIDC, HINGNA ROAD, NAGPUR- 440016
2023- 2024



# PRIYADARSHINI J. L. COLLEGE OF PHARMACY

Electronic Zone Building, MIDC, Hingna Road, Nagpur- 440016

Dr. D. R. Chaple

Principal,

M. Pharm., Ph. D

Priyadarshini J. L. College of Pharmacy, Nagpur- 440016.

## **CERTIFICATE**

This is certified that the work investigation described in this dissertation entitled

"FORMULATION AND CHARACTERIZATION OF NANO-MUCOADHESIVE TABLET FOR VAGINAL DELIVERY" is submitted in the partial fulfilment of the requirement for the degree of Master of Pharmacy in Pharmaceutics, in the faculty of science and technology, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. This work is original as far as my knowledge is concerned and not imitated from anywhere. This work has been carried out in laboratories of the Priyadarshini J. L. College of Pharmacy, Nagpur, by Ms. Kajal Kumari S. Prasad, under the guidance and supervision of Dr. Mrs. G. R. Dixit, Priyadarshini J. L. College of Pharmacy, Nagpur.

This dissertation is now ready for examination.

Place: Nagpur

Date: 03/07/24

Dr. D. R. Chaple

(Principal)

PRINCIPAL

Priyadarshini J. L. College of

Pharmacy, Nagpur.

Scanned with CamScanner

# SOLUBILITY ENHANCEMENT OF POORLY WATER- SOLUBLE DRUG USING MESOPOROUS SILICA AS CARRIER

# A DISSERTATION

Submitted for the approval of thesis in partial fulfillment of requirement for Degree of

# MASTER OF PHARMACY IN PHARMACEUTICS

In the Faculty of Science and Technology, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur

> Submitted By Sakshi R. Sharma (B. Pharm)

Research Guide Dr. Mrs. Gouri R. Dixit (M. Pharm, Ph. D)





# PRIYADARSHINI J.L. COLLEGE OF PHARMACY

ELECTRONIC ZONE BUILDING, MIDC, HINGNA ROAD, NAGPUR 440016
2023-2024



# PRIYADARSHINI J.L. COLLEGE OF PHARMACY

# ELECTRONIC ZONE BUILDING, MIDC, HINGNA ROAD, NAGPUR - 440016

Dr. D. R. Chaple

Principal,

M.Pharm, Ph. D

Priyadarshini J. L. College of Pharmacy, Nagpur-440016

#### CERTIFICATE

This is certified that the working investigation described in this dissertation entitled "SOLUBILITY ENHANCEMENT OF POORLY WATER SOLUBLE DRUG USING MESOPOROUS SILICA AS CARRIER" is submitted in the partial fulfilment of the requirement for the degree of Master of Pharmacy in Pharmaceutics, in the faculty of science and technology, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. This work is original as far as my knowledge is concerned and not imitated from any where. This work has been carried out in laboratories of the Priyadarshini J. L. College of Pharmacy, Nagpur, by Sakshi R. Sharma, under the guidance and supervision of Dr. Mrs. Gouri R. Dixit, Priyadarshini J. L. College of Pharmacy, Nagpur.

This dissertation is now ready for examination.

Place: Nagpur

Date: 21 06 24

Dr .D. R. Chaple

(Principal)
PRINCIPAL
Priyadarshini J. L. College of
Pharmacy, Negpur.

# DEVELOPMENT AND EVALUATION OF SUSTAINED RELEASE MATRIX TABLET FOR ANTIHYPERTENSIVE AGENT BY USING NATURAL POLYMER

#### THESIS

Submitted for the approval of thesis in partial fulfillment of requirements for the degree of

#### MASTER OF PHARMACY

IN

#### **PHARMACEUTICS**

In the Faculty of Science and Technology, Rashtrasant Tukdoji Maharaj, Nagpur University, Nagpur.

Submitted by

Ketan E. Jambhulkar

(B. Pharm.)

Research Guide

Dr. R. H. Kasliwal

(M. Pharm, Ph.D.)





Priyadarshini J. L. College of Pharmacy
Electronic Zone Building, MIDC, Hingna Road, Nagpur-440016
2023 – 2024



## LOKMANYA TILAK JANKALYAN SHIKSHAN SANSTHAS

# PRIYADARSHINI J. L. COLLEGE OF PHARMACY

(Formerly called, J. L. Chaturvedi College of Pharmacy)

Electronic zone Building, MIDC, Hingna Road, Nagpur-440016 (M.S.)

Tel & Fax No. +91-7104-299510, Email: <a href="mailto:jlccpngp@rediffmail.com">jlccpngp@rediffmail.com</a> Website: <a href="www.pjlcp.edu.in">www.pjlcp.edu.in</a>
(Approved by AICTE & New Delhi; Affiliated to R.T.M. Nagpur University, Nagpur)

ACCREDITED WITH GRADE B\*\* BY NAAC

Dr. D. R. Chaple
M. Pharm., Ph.D.
Principal and Professor,
Priyadarshini J. L. College of Pharmacy,
Nagpur

# CERTIFICATE

This is to certify that the work investigations described in this thesis, entitled "DEVELOPMENT AND EVALUATION OF SUSTAINED RELEASE MATRIX TABLET FOR ANTIHYPERTENSIVE AGENT BY USING NATURAL POLYMER" submitted in partial fulfillment of the requirement for the degree of Master of Pharmacy in Pharmaceutical Chemistry, in the faculty of Science and Technology, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. The work is original as far as my knowledge is concerned and not imitated from anywhere. This work has been carried out in laboratories of Priyadarshini J. L. College of Pharmacy, Nagpur, by Mr. Ketan E. Jambhulkar under the guidance of Dr. R. H. Kasliwal Professor and Head of Pharmaceutical Chemistry Department, Priyadarshini J. L. College of Pharmacy, Nagpur.

This thesis is now ready for examination.

Place: Nagpur

Date: 01/07/2024

Dr. Dinesh R. Chaple

(Principal)

PRINCIPAL
Priyadarshini J. L. College of
Pharmacy, Nagpur.

# FORMULATION AND EVALUATION OF NATURAL GUM FACILITATED MICONAZOLE DRUG LOADED MICROSPONGES TOPICAL GEL

#### THESIS

Submitted for the approval of thesis in partial fulfillment of requirements for the degree of

## MASTER OF PHARMACY

IN

#### **PHARMACEUTICS**

In the Faculty of Science and Technology, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.

Submitted by

Shivani D. Dhongde

(B. Pharm.)

Research Guide

Dr. Mrs. K. P. Upadhye

(M. Pharm, Ph.D.)





Priyadarshini J. L. College of Pharmacy
Electronic Zone Building, MIDC, Hingna Road, Nagpur-440016
2023 – 2024



#### LOKMANYA TILAK JANKALYAN SHIKSHAN SANSTHAS

# PRIYADARSHINI J. L. COLLEGE OF PHARMACY

(Formerly called; J. L. Chaturvedi College of Pharmacy)

Electronic zone Building, MIDC, Hingna Road, Nagpur-440016 (M.S.)

Tel & Fax No. +91-7104-299510, Email: <a href="mailto:ilccpngp@rediffmail.com">ilccpngp@rediffmail.com</a> Website: <a href="www.pjlcp.edu.in">www.pjlcp.edu.in</a>
(Approved by AICTE & New Delhi; Affiliated to R.T.M. Nagpur University, Nagpur)

ACCREDITED WITH GRADE A\*\* BY NAAC

Dr. D. R. Chaple M. Pharm., Ph.D. Principal and Professor, Priyadarshini J. L. College of Pharmacy, Nagpur

# **CERTIFICATE**

This is to certify that the work investigations described in this thesis, entitled "Formulation and Evaluation of Natural Gum Facilitated Miconazole Drug Loaded Microsponges Topical Gel" submitted in partial fulfillment of the requirement for the degree of Master of Pharmacy in Pharmaceutical Chemistry, in the faculty of Science and Technology, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. The work is original as far as my knowledge is concerned and not imitated from anywhere. This work has been carried out in laboratories of Priyadarshini J. L. College of Pharmacy, Nagpur, by Ms. Shivani D. Dhongde under the guidance of Dr. (Mrs.) K. P. Upadhye Professor and Head of Pharmaceutics Department, Priyadarshini J. L. College of Pharmacy, Nagpur. This thesis is now ready for examination.

Place: Nagpur

Date: 02/07/24

Dr. Dinesh R. Chaple

(Principal)

PRINCIPAL
Priyadarshini J. L. College of Pharmacy, Nagpur.

# PREPARATION AND EVALUATION OF SOLID DISPERSION OF POORLY SOLUBLE DRUG

# DISSERTATION

Submitted in partial fulfilment of requirements for Degree of

MASTER OF PHARMACY

IN

#### PHARMACEUTICS

In the Faculty of Science and Technology Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur.

**Submitted By** 

Ms. Priyanka O. Udasi (B. Pharm.)

Research Guide

Dr. Mrs. Suparna. S. Bakhle (M. Pharm., Ph. D)





PRIYADARSHINI J. L. COLLEGE OF PHARMACY, ELECTRONIC ZONE, MIDC, HINGNA ROAD, NAGPUR- 440016 2023-2024



Priyadarshini J. L. College of Pharmacy, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur-440016 2023-2024



Dr. D. R. Chaple Principal Priyadarshini J. L. College of Pharmacy Nagpur- 4400<mark>16</mark>

# **CERTIFICATE**

This is to certify that the work investigation described in this dissertation, entitled "Preparation and evaluation of solid dispersion of poorly soluble drug", is submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy in Pharmaceutics, in the faculty of Medicine, Rashtrasant Tukadoji Maharaj Nagpur University, and Nagpur. This work is original as far as my knowledge is concerned and not imitated from anywhere. This work has been carried out in the laboratories of Priyadarshini J.L. College of Pharmacy, Nagpur by Ms. Priyanka Omprakash Udasi under the guidance supervision of Dr. Suparna. S. Bakhle, Priyadarshini J. L. College of Pharmacy, Nagpur.

This dissertation is now ready for examination.

Place: Nagpur

Date: 19/06/24

Dr. D. R. Chaple

(Principal)
PRINCIPAL

Priyadarshini J. L. College of Pharmacy, Nagpur.

# COMPARATIVE STUDIES OF DISSOLUTION ENHANCEMENT OF BCS CLASS II DRUG THROUGH SOLID DISPERSION AND LIQUISOLID COMPACT

### A DISSERTATION

Submitted in partial fulfilment of requirement for the degree of

# MASTER OF PHARMACY IN PHARMACEUTICS

In the Faculty of Science and Technology Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur

Submitted by

Miss. Rakshika Mahesh Agrawal

(B. Pharm)

Research Guide

Dr. Mrs. Suparna S. Bakhle

(M. Pharm, Ph.D.)





PRIYADARSHINI J. L. COLLEGE OF PHARMACY
ELECTRONIC ZONE BUILDING, MIDC, HINGNA ROAD, NAGPUR-440016
(2023-2024)





Priyadarshini J. L. College of Pharmacy, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur-440016 (2023-2024)

Dr. D. R. Chaple Principal Priyadarshini J. L. College of Pharmacy, Nagpur- 440016

# **CERTIFICATE**

This is to certify that the work investigation described in this dissertation entitled "Comparative Studies of Dissolution Enhancement of BCS Class II Drug Through Solid Dispersion and Liquisolid Compact" is submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy in Pharmaceutics, in the faculty of Science & Technology, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. This work is original as far as my knowledge is concerned and not imitated from anywhere. This work has been carried out in the laboratories of Priyadarshini J. L. College of Pharmacy, Nagpur by Miss. Rakshika Mahesh Agrawal under the guidance and supervision of Dr. Suparna. S. Bakhle, Priyadarshini J. L. College of Pharmacy, Nagpur.

This dissertation is now ready for examination.

Place: Nagpur

Date: 26/06/2029

Dr. D. R. Chaple (Principal)

PRINCIPAL
Priyadarshini J. L. College of
Pharmacy, Nagpur.

# DEVELOPMENT AND EVALUATION OF MUCOADHESIVE INSITU GEL OF PROBIOTIC FOR THE MANAGEMENT OF BACTERIAL VAGINOSIS

#### A DISSERTATION

Submitted for the approval of thesis in partial fulfillment of the requirement for the Degree of

# MASTER OF PHARMACY IN PHARMACEUTICS

In the Faculty of Science and Technology. Rashtrashant Tukdoji Maharaj Nagpur University, Nagpur.

Submitted By

Sakshi V. Bhope

(B. Pharm)

Research Guide

Dr. Mrs. Suparna S. Bakhle

(M. Pharm, Ph. D)





# PRIYADARSHINI J. L. COLLEGE OF PHARMACY

ELECTRONIC ZONE BUILDING, MIDC, HINGNA ROAD, NAGPUR-440016. (2023-2024)





# Priyadarshini J. L. College of Pharmacy, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur-440016 (2023-2024)

Dr. D. R. Chaple

Principal,

M. Pharm., Ph. D

Priyadarshini J. L. College of Pharmacy,

Nagpur- 440016.

#### **CERTIFICATE**

This is certify that the work investigation described in this dissertation entitled "DEVELOPMENT AND EVALUATION OF MUCOADHESIVE IN SITU GEL OF PROBIOTIC FOR THE MANAGEMENT OF BACTERIAL VAGINOSIS" is submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy in Pharmaceutics, in the faculty of Science and Technology, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. This work is original as far as my knowledge is concerned and not imitated from anywhere. This work has been carried out in laboratories of the Priyadarshini J. L. College of Pharmacy, Nagpur, by Ms. Sakshi Vijay Bhope, under the guidance and supervision of Dr. Mrs. Suparna S. Bakhle, Priyadarshini J. L. College of Pharmacy, Nagpur.

This dissertation is now ready for examination.

Place: Nagpur

Date: 01/07/2024

Dr. D. R. Chaple

(Principal)

Priyadarshint J. L. College of pi-armacy, Nagpur.

# PHARMACOLOGICAL EVALUATION OF SOME TOPICAL AGENTS FOR WOUND HEALING ACTIVITY

# A Thesis

To be submitted in the partial fulfillment of the requirement for the degree of

# MASTER OF PHARMACY

IN

# PHARMACOLOGY

In the Faculty of Science and Technology,

Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur

Submitted By

Mr. Prabhu R. Salekar

(B.Pharm)

Guide

Dr. Shilpa A. Deshpande

(M.Pharm, Ph.D.)





[Department of Pharmacology]

Priyadarshini J. L. College of Pharmacy

Electronic Zone Building, M.I.D.C. Hingna Road, Nagpur- 440016 2023-2024

Priyadarshini J.L. College of Pharmacy, Nagpur.

Page 1



# DR. D. R. Chaple

M. Pharm, Ph. D.

Principal,

Priyadarshini J.L. College of Pharmacy,

Nagpur.

### CERTIFICATE

This is to certify that the investigations described in this dissertation, entitled "PRECLINICAL EVALUATION OF SOME TOPICAL AGENTS FOR WOUND HEALING ACTIVITY" is submitted in partial fulfillment for the degree of Master of Pharmacy in Pharmacology, in the faculty of Science and Technology, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. This work is original as far as my knowledge is concerned and not imitated from anywhere. This work has been carried out in laboratories of the Priyadarshini J. L. College Pharmacy. Nagpur. by Mr. Prabhu R. Salekar, under the guidance. and supervision of Dr. Mrs. Shilpa A. Deshpande, Professor, Priyadarshini J. L. College of Pharmary, Nagpur.

This thesis is now ready for examination.

Date: 01/07/24

Place: Nagpur

Dr. D.R. Chaple

Principal

Priyadarshini J.L. College of Pharmacy, Nagpur. Priyadarshini J. L. College of Page 2

# PRE-CLINICAL INVESTIGATIONS OF NEUROPROTECTIVE EFFECTS OF SOME NOVEL DRUGS COMBINATION IN EXPERIMENTALLY INDUCED DEMENTIA

## **A THESIS**

Submitted in partial fulfilment of the requirement for the Degree of

### MASTER OF PHARMACY

IN

#### PHARMACOLOGY

In the faculty of Science and Technology

Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur.

Submitted by

Mr. Satish Vilas Misar

(B. Pharm)

Research Guide

Dr. Mrs. Shilpa A. Deshpande

(M. Pharm, Ph.D)





#### DEPARTMENT OF PHARMACOLOGY

PRIYADARSHINI J. L. COLLEGE OF PHARMACY,

ELECTRONIC ZONE BUILDING, MIDC, HINGNA ROAD,

NAGPUR-440016, MAHARASHTRA.

(2023-2024)



Dr. D. R. Chaple

M. Pharm, Ph. D.

Principal, Priyadarshini J. L. College of Pharmacy,

Nagpur.

# CERTIFICATE

This is to certify that the investigations described in this thesis, entitled "Pre-Clinical Investigations of Neuroprotective Effects of Some Novel Drugs Combination in Experimentally Induced Dementia" is submitted in partial fulfilment for the degree of Master of Pharmacy in Pharmacology, in the faculty of Science and Technology, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. This work is original as far as my knowledge is concerned and not imitated from anywhere. This work had been carried out in laboratory of Priyadarshini J. L. College of Pharmacy, Nagpur, by Mr. Satish V. Misar, under the guidance and supervision of Dr. Mrs. Shilpa A. Deshpande, Professor, Priyadarshini J. L. College of Pharmacy, Nagpur.

Date: 26/06/2024

Place: Nagpur

Dr. D.R. Chaple (Principal)

PRINCIPAL
Priyadarshini J. L. College of
Pharmacy, Nagpur.

# PRE-CLINICAL INVESTIGATION OF EFFECTIVE COMBINATION THERAPY FOR BRONCHITIS

## A THESIS

Submitted in partial fulfilment of the requirement for the Degree of

#### MASTER OF PHARMACY

IN

#### PHARMACOLOGY

In the faculty of Science and Technology Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur.

Submitted by

Ms. Shreya Bhujangrao Pathare

(B. Pharm)

Research Guide

Dr. Mrs. Shilpa A. Deshpande

(M. Pharm, Ph.D)





# DEPARTMENT OF PHARMACOLOGY

PRIYADARSHINI J. L. COLLEGE OF PHARMACY,

ELECTRONIC ZONE BUILDING, MIDC, HINGNA ROAD,

NAGPUR-440016, MAHARASHTRA. (2023-2024)



Dr. D. R. Chaple

M. Pharm, Ph. D.

Principal, Priyadarshini J. L. College of Pharmacy,

Nagpur.

# **CERTIFICATE**

This is to certify that the investigations described in this thesis, entitled "Pre-Clinical Investigation of Effective Combination Therapy for Bronchitis" is submitted in partial fulfilment for the degree of Master of Pharmacy in Pharmacology, in the faculty of Science and Technology, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. This work is original as far as my knowledge is concerned and not imitated from anywhere. This work had been carried out in laboratory of Priyadarshini J. L. College of Pharmacy, Nagpur, by Ms. Shreya B. Pathare, under the guidance and supervision of Dr. Mrs. Shilpa A. Deshpande, Professor, Priyadarshini J. L. College of Pharmacy, Nagpur.

Date: 01/07/24

Place: Nagpur

Dr. D.R. Chaple (Principal)

Priyadarshini J. L. College of Pharmacy, Nagpur.

# PHARMACOLOGICAL INVESTIGATION OF SELECTED PHYTOPHARMACEUTICAL IN EXPERIMENTALLY INDUCED HYPERLIPIDEMIA

A Thesis

Submitted in Partial Fulfillment of the Requirement for the Degree of

MASTER OF PHARMACY

IN

#### PHARMACOLOGY

In the Faculty of Science and Technology

Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur

Submitted By

Ms. Jagruti Z. Thaware

B. Pharm.

Guide

Dr. D. R. Chaple

M. Pharm, Ph.D.





Department of Pharmacology

Priyadarshini J. L. College of Pharmacy,
Electronic Zone Building, M.I.D.C., Hingna Road, Nagpur-440016
2023-2024



Dr. D. R. Chaple

M. Pharm, Ph.D.

Principal,

Priyadarshini J. L. College of Pharmacy,

Nagpur.

### CERTIFICATE

This is to certify that the investigations described in this thesis, entitled "Pharmacological Investigation of Selected Phytopharmaceutical in Experimentally Induced Hyperlipidemia" is submitted in partial fulfillment for the degree of Master of Pharmacy in Pharmacology, in the faculty of Science and Technology, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. This work is original as far as my knowledge is concerned and not imitated from anywhere. This work has been carried out in laboratories of the Priyadarshini J. L. College Pharmacy, Nagpur, by Ms. Jagruti Thaware under my guidance and supervision.

This dissertation is now ready for examination.

Date: 01/07/24

Dr. D. R. Chaple

Place: Nagpur

Principal & Guide

PRINCIPAL
Priyadarshini J. L. College of
Pharmacy, Nagpur.

# PRECLINICAL INVESTIGATION OF SELECTED PHYTOPHARMACEUTICAL IN HYPERLIPIDEMIC-LIKE CONDITION

A Thesis

Submitted in Partial Fulfillment of the Requirement for the Degree of

MASTER OF PHARMACY

IN

PHARMACOLOGY

In the Faculty of Science and Technology Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur

Submitted By

MS. SAMIKSHA D. AJMIRE

B. Pharm.

Guide

Dr. D. R. CHAPLE

M. Pharm, Ph.D.





Department of Pharmacology

Priyadarshini J.L. College of Pharmacy,

Electronic Zone Building, M.I.D.C., Hingna Road, Nagpur-440016

2023-2024



Dr. D. R. Chaple

M. Pharm, Ph.D.

Principal,

Priyadarshini J. L. College of Pharmacy,

Nagpur.

### CERTIFICATE

This is to certify that the investigations described in this dissertation, entitled "Preclinical Investigation of selected Phytopharmaceutical in hyperlipidemic-Like Condition" is submitted in partial fulfillment for the degree of Master of Pharmacy in Pharmacology, in the faculty of Science and Technology, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. This work is original as far as my knowledge is concerned and not imitated from anywhere. This work has been carried out in laboratories of the Priyadarshini J. L. College Pharmacy, Nagpur, by Ms. Samiksha Ajmire under my guidance and supervision.

This dissertation is now ready for examination.

Date: 01/07/24

Place: Nagpur

Dr. D. R. Chaple

Principal & Guide
PRINCIPAL
Priyadarshini J. L. College of
Pharmacy, Nagpur.

# Pharmacological Evaluation of Selected Pharmaceutical in Experimentally Induced Depression Like Condition A THESIS

Submitted in partial fulfilment of the requirement for the Degree of

MASTER OF PHARMACY

IN

#### **PHARMACOLOGY**

In the faculty of Science and Technology Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur.

Submitted by

### MR. AKSHAY DILIPRAO BIDWAIK

(B. Pharm)

Guide

DR. MRS. ALPANA J. ASNANI

(M. Pharm, Ph. D.)





DEPARTMENT OF PHARMACOLOGY
PRIYADARSHINI J. L. COLLEGE OF PHARMACY,
ELECTRONIC ZONE BUILDING, MIDC, HINGNA ROAD,
NAGPUR-440016, MAHARASHTRA.
2023-2024



M. Pharm, Ph. D.

Principal,

Priyadarshini J. L. College of Pharmacy, Nagpur.

#### CERTIFICATE

This is to certify that the investigations described in this dissertation, entitled "Pharmacological Evaluation of Selected Pharmaceutical in Experimentally Induced Depression Like Condition" is submitted in partial fulfilment for the degree of Master of Pharmacy in Pharmacology, in faculty of Science and Technology, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. This work is original as far as my knowledge is concerned and not imitated from anywhere. This work had been carried out in laboratory of Priyadarshini J. L. College of Pharmacy, Nagpur, by Mr. Akshay D. Bidwaik, under the guidance and supervision of Dr. Mrs. Alpana J, Asnani, Professor, Priyadarshini J. L. College of Pharmacy, Nagpur.

Date: 21/05/24

Place: Nagpur

Dr. D. R. Chaple

(Principal)

Priyadarshini J. L. College of

THE PARTY NAMED IN

# PRECLINICAL INVESTIGATION OF NOVEL DRUG COMBINATION FOR ANTIDEPRESSANT ACTIVITY

#### A THESIS

Submitted in partial fulfillment of the requirement for the Degree of

## MASTER OF PHARMACY

IN

### **PHARMACOLOGY**

In the faculty of Science and Technology Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur

### **Submitted By**

Mr. Mayur Ashok Lohi
(B. Pharm)

#### Research Guide

Dr. Mrs. Shilpa A. Deshpande (M. Pharm, Ph.D)





## DEPARTMENT OF PHARMACOLOGY

PRIYADARSHINI J. L. COLLEGE OF PHARMACY
ELECTRONIC ZONE BUILDING, M.I.D.C., HINGNA ROAD, NAGPUR-440016
(2023-24)



(M. Pharm, Ph.D)

Principal,

Priyadarshini J. L. College of Pharmacy, Nagpur

#### CERTIFICATE

This is to certify that the investigations described in this thesis, entitled "Preclinical Investigation of Novel Drug Combination for Antidepressant Activity" is submitted in partial fulfillment for the degree of Master of Pharmacy in Pharmacology, in the faculty of Science and Technology, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. This work is original as far as my knowledge is concerned and not imitated from anywhere. This work had been carried out in laboratory of Priyadarshini J. L. College of Pharmacy, Nagpur, by Mr. Mayur Ashok Lohi, under the guidance and supervision of Dr. Mrs. Shilpa A. Deshpande, Professor, Priyadarshini J. L. College of Pharmacy, Nagpur.

This thesis is now ready for examination.

Date: 01/07/24

Place: Nagpur

Dr. D. R. Chaple (Principal)

### PHARMACOLOGICAL STUDY OF FOOD DRUG INTERACTION FOR ANTI-PARKINSONIAN TREATMENT

#### **A THESIS**

Submitted in partial fulfilment of the requirement for the Degree of

#### MASTER OF PHARMACY

IN

#### PHARMACOLOGY

In the faculty of Science and Technology

Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur.

#### Submitted by

Mr. Binayak Krishna Sarkar

(B. Pharm)

Research Guide

Dr. Mrs. Shilpa A. Deshpande

(M. Pharm, Ph.D)





#### DEPARTMENT OF PHARMACOLOGY

PRIYADARSHINI J. L. COLLEGE OF PHARMACY,

ELECTRONIC ZONE BUILDING, MIDC, HINGNA ROAD,

NAGPUR-440016, MAHARASHTRA. (2023-2024)



M. Pharm, Ph. D.

Principal, Priyadarshini J. L. College of Pharmacy,

Nagpur.

#### CERTIFICATE

This is to certify that the investigations described in this thesis, entitled "Pharmacological Study of Food Drug Interaction for Anti-Parkinsonian Treatment" is submitted in partial fulfilment for the degree of Master of Pharmacy in Pharmacology, in the faculty of Science and Technology, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. This work is original as far as my knowledge is concerned and not imitated from anywhere. This work had been carried out in laboratory of Priyadarshini J. L. College of Pharmacy, Nagpur, by Mr. Binayak K. sarkar, under the guidance and supervision of Dr. Mrs. Shilpa A. Deshpande, Professor, Priyadarshini J. L. College of Pharmacy, Nagpur.

Date: 01/07/24
Place: Nagpur

Dr. D.R. Chaple

(Principal)
PRINCIPAL

Priyadarshini J. L. College of
Pharmacy, Nagpur.

# PHARMACOLOGICAL EVALUATION OF NOVEL DRUG COMBINATION IN EXPERIMENTALLY INDUCED ALZHEIMER LIKE CONDITION

#### A DISSERTATION

Submitted in partial fulfilment of the requirement for the Degree of

#### MASTER OF PHARMACY

IN

#### PHARMACOLOGY

In the faculty of Science and Technology

Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur.

Submitted by

Mr. Abdul Rehmat Abdul Wahab Ansari

(B. Pharm)

Research Guide

Dr. Mrs. Shilpa A. Deshpande

(M. Pharm, Ph.D)





#### DEPARTMENT OF PHARMACOLOGY

PRIYADARSHINI J. L. COLLEGE OF PHARMACY,

ELECTRONIC ZONE BUILDING, MIDC, HINGNA ROAD,

NAGPUR-440016, MAHARASHTRA.

(2023-2024)



M. Pharm, Ph. D.

Principal, Priyadarshini J. L. College of Pharmacy,

Nagpur.

#### CERTIFICATE

This is to certify that the investigations described in this dissertation, entitled "Pharmacological Evaluation of Novel Drug Combination in Experimentally Induced Alzheimer Like Condition" is submitted in partial fulfilment for the degree of Master of Pharmacy in Pharmacology, in faculty of Science and Technology, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. This work is original as far as my knowledge is concerned and not imitated from anywhere. This work had been carried out in laboratory of Priyadarshini J. L. College of Pharmacy, Nagpur, by Mr. Abdul Rehmat Abdul Wahab Ansari, under the guidance and supervision of Dr. Mrs. Shilpa A. Deshpande, Professor, Priyadarshini J. L. College of Pharmacy, Nagpur.

Date: 26/06/2024

Place: Nagpur

Dr. D.R. Chaple (Principal)

# COMPARATIVE STUDY OF THE INNER AND OUTER BARK OF AZADIRACHTA INDICA A. JUSS.

### THESIS SUBMITTED TO

Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur. In Partial Fulfillment of Requirements for The Degree of

MASTER OF PHARMACY
IN
PHARMACOGNOSY

Submitted By Puja R. Nagarkar (B. Pharm)

Guide
Dr. Mrs. Sonal P. Motghare
(M. Pharm, Ph.D.)





PRIYADARSHINI J. L. COLLEGE OF PHARMACY,
ELECTRONIC ZONE BUILDING, M.I.D.C., HINGNA ROAD,
NAGPUR -440016.
(2023 -2024)

# Priyadarshini J. L. College of Pharmacy, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur. 2023-2024



Dr. D. R. Chaple (M. Pharm., Ph.D.) Principal Priyadarshini J. L. College of Pharmacy, Nagpur-440016.

#### CERTIFICATE

This is to certify that the work investigation described in this dissertation entitled, "Comparative Study of the Inner and Outer Bark of Azadirachta indica A. Juss." submitted in the partial fulfillment of the degree of Master of Pharmacy in Pharmacognosy, in the Faculty of Science and Technology, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur. This work has not been carried out in any other university. This work has been carried out in Priyadarshini J. L. College of Pharmacy, Nagpur laboratories by Miss. Puja R. Nagarkar under the guidance and supervision of Dr. Mrs. Sonal P. Motghare.

This dissertation is now ready for examination.

Place: Nagpur

Date: 07/07/2024

Dr. D. R. Chaple

(Principal)

# EVALUATION OF CUSCUTA REFLEXA ROXB. COLLECTED FROM TWO DIFFERENT HOST PLANTS

#### THESIS

#### **SUBMITTED TO**

Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.

In Partial Fulfillment of Requirements for the Degree of

MASTER OF PHARMACY

IN

PHARMACOGNOSY

Submitted By

Sakshi S. Kamde

(B. Pharm)

Guide

Mrs. S. G. Gurunani

(M. Pharm)





PRIYADARSHINI J.L. COLLEGE OF PHARMACY,
ELECTRONIC ZONE BUILDING, M.I.D.C., HINGNA ROAD,
NAGPUR -440016

2023-2024

Priyadarshini J.L. College of Pharmacy,
Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.
2023-2024



Dr. D.R. Chaple (M. Pharm., Ph.D.) Principal Priyadarshini J.L. College of Pharmacy, Nagpur-440016.

#### CERTIFICATE

This is to certify that the work investigation described in this dissertation entitled, "Evaluation of Cuscuta reflexa Roxb. collected from two different host plants" submitted in the partial fulfillment of the degree of Master of Pharmacy in Pharmacognosy, in the faculty of Science and Technology, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur. This work has not been carried out in any other university. This work has been carried out in laboratories of Priyadarshini J.L. College of Pharmacy, Nagpur by Ms. Sakshi S. Kamde under the guidance and supervision of Mrs. S. G. Gurunani.

This dissertation is now ready for examination.

Place: Nagpur

Date: 01187 24

Dr. D. R. Chaple

(Principal)

# Comparative Standardization of Ayurvedic Formulations and Homeopathic Tinctures

#### **THESIS**

#### SUBMITTED TO

Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.

In Partial Fulfillment of Requirements for The Degree of

#### MASTER OF PHARMACY

IN

PHARMACOGNOSY

**Submitted By** 

Chetana A. Lahariya

(B. Pharm)

Guide

Mrs. S. G. Gurunani

(M. Pharm)





PRIYADARSHINI J.L. COLLEGE OF PHARMACY,
ELECTRONIC ZONE BUILDING, M.I.D.C., HINGNA ROAD,
NAGPUR -440016.

(2023 - 2024)

# Priyadarshini J.L. College of Pharmacy, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur. 2023-2024



Dr. D.R. Chaple (M. Pharm., Ph.D.) Principal Priyadarshini J.L. College of Pharmacy, Nagpur-440016.

#### CERTIFICATE

This is to certify that the work investigation described in this dissertation entitled, Comparative Standardization of Ayurvedic Formulations and Homeopathic Tinctures submitted in the partial fulfillment of the degree of Master of Pharmacy in Pharmacognosy, in the faculty of Science and Technology, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur. This work has not been carried out in any other university. This work has been carried out in laboratories of Priyadarshini J.L. College of Pharmacy, Nagpur by Miss. Chetana A. Lahariya, under the guidance and supervision of Mrs. S. G. Gurunani.

This dissertation is now ready for examination.

Place: Nagpur

Date: 5/4/24

Dr. D. R. Chaple



#### THESIS

#### SUBMITTED TO

Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.

In Partial Fulfillment of Requirements for The Degree of

MASTER OF PHARMACY

IN

**PHARMACOGNOSY** 

#### **Submitted By**

Rutuja N. Bhadange

(B. Pharm)

#### Guide

Mrs. Shailju G. Gurunani

(M. Pharm)



PRIYADARSHINI J.L. COLLEGE OF PHARMACY,

ELECTRONIC ZONE BUILDING, M.I.D.C., HINGNA ROAD,

NAGPUR -440016.

## Priyadarshini J.L. College of Pharmacy,

Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.

2023-2024



Dr. Dinesh R. Chaple (M. Pharm., Ph.D.) Principal Priyadarshini J.L. College of Pharmacy, Nagpur-440016.

#### **CERTIFICATE**

This is to certify that the work investigation described in this dissertation entitled, "Formulation and Standardization of lutein containing eye drop." submitted in the partial fulfillment of the degree of Master of Pharmacy in Pharmacognosy, in the faculty of Science and Technology, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur. This work has not been carried out in any other university. This work has been carried out in laboratories of Priyadarshini J.L. College of Pharmacy, Nagpur by Miss. Rutuja N. Bhadange under the guidance and supervision of Mrs. Shailju G. Gurunani, Assistant Professor, Dept. of Pharmacognosy, Priyadarshini J. L. College of Pharmacy, Nagpur.

This dissertation is now ready for examination.

Place: Nagpur

Date: 5-7-2024

Dr. Dinesh R. Chaple

(Principal)

## FORMULATION AND EVALUATION OF ORAL DOSAGE FORM OF URARIA PICTA EXTRACT FOR MANAGEMENT OF DIABETES

#### THESIS

#### SUBMITTED TO

Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.

In Partial Fulfillment of Requirements for the Degree of

MASTER OF PHARMACY

IN

PHARMACOGNOSY

Submitted By

ANUSHREE V. SHEGAONKAR

(B. Pharm)

Guide

Dr. V. D. Gulkari

(M. Pharm)





PRIYADARSHINI J.L. COLLEGE OF PHARMACY,
ELECTRONIC ZONE BUILDING, M.I.D.C., HINGNA ROAD,
NAGPUR -440016
2023-2024

# Priyadarshini J.L. College of Pharmacy, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur. 2023-2024



Dr. D.R. Chaple (M. Pharm., Ph.D.) Principal Priyadarshini J.L. College of Pharmacy, Nagpur-440016.

#### CERTIFICATE

"Formulation and evaluation of oral dosage form of Uraria picta extract for management of diabetes" submitted in the partial fulfillment of the degree of Master of Pharmacy in Pharmacognosy, in the faculty of Science and Technology, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur. This work has not been carried out in any other university. This work has been carried out in laboratories of Priyadarshini J.L. College of Pharmacy, Nagpur by Ms. Anushree V. Shegaonkar under the guidance and supervision of Dr. V. D. Gulkari.

This dissertation is now ready for examination.

Place: Nagpur

Date: 05/07/24

Dr. D. R. Chaple (Principal)

# "FROMULATION, EVALUATION AND PRE-CLINICAL ACTIVITY OF ANTIDANDRUFF SHAMPOO"

#### THESIS

#### **SUBMITTED TO**

Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur. In Partial Fulfillment of Requirements for The Degree of

#### MASTER OF PHARMACY

IN

#### **PHARMACOGNOSY**

**Submitted By** 

## MOHD SHADAB RAZA MOHD SALIM SHAIKH

(B. Pharm)

Guide

Dr. Mr. V. D. Gulkari (M.Pharm, Ph.D.)





PRIYADARSHINI J.L. COLLEGE OF PHARMACY,
ELECTRONIC ZONE BUILDING, M.I.D.C., HINGNA ROAD,
NAGPUR -440016.

(2023 - 2024)

# Priyadarshini J.L. College of Pharmacy, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.





Dr. D.R. Chaple
(M. Pharm., Ph.D.)
Principal
Priyadarshini J.L. College of Pharmacy,
Nagpur-440016.
CERTIFICATE

This is to certify that the work investigation described in this dissertation entitled, "Formulation, evaluation and preclinical activity of antidandruff shampoo." submitted in the partial fulfillment of the degree of Master of Pharmacy in Pharmacognosy, in the faculty of Science and Technology, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur. This work has not been carried out in any other university. This work has been carried out in laboratories of Priyadarshini J.L. College of Pharmacy, Nagpur by Mr. Mohd Shadab Raza Mohd Salim Shaikh, under the guidance and supervision of Dr.

Mr. V. D. Gulkari

This dissertation is now ready for examination.

Place: Nagpur

Date: 01/07/24

Dr. D. R. Chaple

(Principal)