



LOKMANYA TILAK JANKALYAN SHIKSHAN SANSTHA'S  
**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@pjlcop.edu.in, ilccpnp@gmail.com • Website: www. pjlcop.edu.in  
Accredited with Grade B++ by NAAC  
Institute Code: DTE 4265 & RTMNU 265



This document contains list of students who completed their M. Pharm Project.

<b>Sr. No.</b>	<b>Name of the Student</b>	<b>Sr. No.</b>	<b>Name of the Student</b>
1.	Ankita Gyanivant Jaunjal	26.	Ashish Suhasrao Moghe
2.	Brahmanand D. Padole	27.	Himanshu Sudhakar Gauri
3.	Damini Pramod Khedekar	28.	Mayur Asho Ikhankar
4.	Komal Sunil Dangre	29.	Sachin Sheshrao Padole
5.	Pallavi Madhukar Londhey	30.	Vaibhav Santosh Nimbekar
6.	Poonam Vishwieshwar Kothe	31.	Ragini Anil Dani
7.	Pranjali Anil Mokashi	32.	Ragini Pramod Jadhao
8.	Priyanka Dhanjay Nakade	33.	Roshani Prabhakar Sautkar
9.	Rani Vijay Sutone	34.	Sarika Gajanan Lonkar
10.	Sakshi Vilas Maske	35.	Sonali Sudhir Hiranwar
11.	Yogini Charandas Shete	36.	Ulka Rajendra Raut
12.	Nikhil Prabhakar Nahokar	37.	Pratik Mandhar Naole
13.	Sachin Keshav Takras	38.	Raunak Ishwar Harode
14.	Vishal Chatur Ramteke	39.	Rohan Ranbhid Bansod
15.	Aditi Sudhakar Lokhande	40.	Apurva C. Somkuwar
16.	Ashwini Gajanan Bhope	41.	Aswati Anil Meshram
17.	Jaya Suryabhan Ikhar	42.	Disha Ambadas Mool
18.	Kanchan Tekram Sawarkar	43.	Kalyani Avinash Deshpande
19.	Nilima Gangadhar Sakharkar	44.	Monu Yashwant Hedao
20.	Puja Keshavrao Badne	45.	Puja Omprakash Dahikar
21.	Samrudhhi Sunilrao Khonde	46.	Sharvari Prakash Naikwade
22.	Shivani Moreshwar Deshmukh	47.	Shradhha Prabhu Vairagade
23.	Shubhangi Marotiji Raut	48.	Shubham Pralhad Bhute
24.	Parag Bharat Gahane	49.	Pushpa Parmanand Savnerkar
25.	Soumya Gulab Katre	50.	Mohd. Luqman

This submitted document is certified and verified



### 1.3.2 List of students who have done field work

1	HARDIK MORESHWAR KOLTE
2	ANIRUDH MOHAN UPADHYAY
3	VAISHNAVI VIKAS CHITMULWAR
4	MANISHA YADAVRAO WALDE
5	PRIYANKA OMPRAKASH UDASI
6	SAMRUDDHI WASUDEV KHAPARE
7	SWANAND ANANT DESHPANDE
8	PALASH MANOJ BALBUDHE
9	SUSHMA ASHOK HANDEKAR
10	SAYALI BALASAHEB DODE
11	KARISHMA WAMANRAO KUTHE
12	SURAJ ARUNRAO KAKADE
13	NIKITA VIJAYRAO TANDULKAR
14	CHHAYA MUNIDERDA KABIR
15	MANISH GURUDEORAO KINKAR
16	PRAFUL PADOLE
17	SAHIL AHMED
18	PRASAD TAILE
19	SURAJ KAKDE
20	CHHAYA KABIR
21	NIKITA TANDULKAR
22	SUSHMA HANDEKAR
23	KARISHMA KUTHE
24	MANISHA WALDE
25	SAYLI DODE
26	BHARAT DHAGE
27	ANIRUDDHA UPADHYAY
28	KALYANI WARGE
29	PRAJAKTA HARODE
30	DULESHREE BRAHMANKAR
31	SWAPNAY SHEREKAR
32	SWARAJ WANKHEDE
33	SAMIKSHA TAMMEWAR
34	ROHIT SHINGANE
35	DYNANAKSHI LOHAKARE
36	SANKET CHORE

**DEVELOPMENT AND VALIDATION OF ANALYTICAL  
METHODS FOR AZELNIDIPINE AND AZILSARTAN  
MEDOXOMIL IN API AND SOLID DOSAGE FORM**

***Thesis***

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

Degree of

**MASTER OF PHARMACY**

**IN**

**PHARMACEUTICAL CHEMISTRY**

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

**Submitted By**

**Mayur Ashok Ikhankar**  
**(B. Pharm)**

**Research Guide**

**Dr. Dinesh P. Kawade**  
**(M.Pharm, Ph.D.)**



**PRIYADARSHINI J. L. COLLEGE OF PHARMACY,**  
**ELECTRONIC ZONE BUILDING, MIDC, HINGNA ROAD NAGPUR-**  
**440016, M.S.**  
**2021-2022**



LOKMANYA TILAK JANKALYAN SHIKSHANAMITHA'S

PRIYADARSHINI J. L. COLLEGE OF PHARMACY

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

Electronics Zone Building, MIDC, Hingna Road, Nagpur-440116 (M.S.)

Tel. & Fax No. +91-7104-299510, E-mail: [jicp\\_nagpur@rediffmail.com](mailto:jicp_nagpur@rediffmail.com) Website:

[www.jicp.edu.in](http://www.jicp.edu.in)

(Approved By AICTE & DTE, 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 investigation described in this dissertation, entitled "DEVELOPMENT AND VALIDATION OF ANALYTICAL METHODS FOR AZELNIDIPINE AND AZILSARTAN MEDOXOMIL IN API AND SOLID DOSAGE FORM", is submitted in the 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**. 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 **Mayur Ashok Ikhankar**, under the guidance supervision of **Dr. Dinesh P. Kawade**, Priyadarshini J. L. College of Pharmacy, Nagpur.

This dissertation is now ready for examination.

Place: Nagpur

Date: 14/07/2022

**Dr. D. R. Chaple**

(Principal)

PRINCIPAL

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

**Analytical Method Development and Validation of  
Rosuvastatin and Ezetimibe in Pharmaceutical  
Formulation**

**THESIS**

Submitted in partial fulfilment of the requirement for Degree of

**MASTER OF PHARMACY**

**IN**

**PHARMACEUTICAL CHEMISTRY**

In the Faculty of Science and Technology

Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur

Submitted by

**Himanshu S. Gauri**

**B. Pharm.**

Research Guide

**Dr. (Mrs.) Manjusha P. Yeole**

**M. Pharm., Ph.D.**



*Examined  
MMS  
3.8.2022*



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

**2021-2022**



LOKMANYA 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: [plcep\\_npp@rediffmail.com](mailto:plcep_npp@rediffmail.com), Website: [www.plcep.edu.in](http://www.plcep.edu.in)

(Approved By AJCTE & DTE, 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

**CERTIFICATE**

This is to certify that the work investigation described in this thesis, entitled "**Analytical Method Development and Validation of Rosuvastatin and Ezetimibe in Pharmaceutical Formulation**" 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 the Priyadarshini J. L. College of Pharmacy, Nagpur, by **Mr. Himanshu S. Gauri** under guidance of **Dr. (Mrs.) Manjusha P. Yeole** Assistant Professor, Priyadarshini J. L. College of Pharmacy, Nagpur.

This thesis is now ready for examination.

Place: Nagpur

Date: 21/07/2022

**Dr. D. R. Chaple**

(Principal)

**PRINCIPAL**

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

**Synthesis, Physicochemical Characterizations and  
Biological Evaluations of N<sub>1</sub> Substituted  
Sulphonamide Derivatives**

**A DISSERTATION**

*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. Aditi S. Lokhande  
(B.Pharm)**

**Guide  
Dr. D. P. Kawade  
(M. Pharm, Ph.D)**



**Priyadarshini J. L. College of Pharmacy,  
Electronic Zone Building, M.I.D.C., Hingna Road, Nagpur-440016  
2021-2022**




*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*  
***"SYNTHESIS, PHYSICOCHEMICAL CHARACTERIZATIONS AND***  
***BIOLOGICAL EVALUATIONS OF NI SUBSTITUTED SULPHONAMIDE***  
***DERIVATIVES"*** is submitted in partial fulfillment for the Degree of Master 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  
Pharmacy, Nagpur by Ms. Aditi S. Lokhande, under the guidance and  
supervision of Dr. D. P. Kawade, Associate Professor, Pharmaceutical  
Chemistry Department at Priyadarshini J. L. College of Pharmacy,  
Nagpur.

*This dissertation is now ready for examination.*

**Date:** 14/07/2022  
**Place:** Nagpur

  
**Dr. D. R. Chaple**  
**(Principal)**  
PRINCIPAL  
Priyadarshini J. L. College of  
Pharmacy, Nagpur.



**Synthesis, Characterization and Computational  
Studies of Chalcone Derivatives for the  
Management of Cardiovascular Risk Factors**

**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*

**Puja K. Badne**  
**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**

**2021-2022**



**LOKMANYA TILAK JANKALYAN SHIKSHAN SANSTHA'S  
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, E-mail: [principal@rijcp.edu.in](mailto:principal@rijcp.edu.in) website: [www.rijcp.edu.in](http://www.rijcp.edu.in)

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

**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 "**Synthesis, Characterization and Computational Studies of Chalcone Derivatives for the Management of Cardiovascular Risk Factors**" submitted in partial fulfilment of requirement for degree of Master of Pharmacy in Pharmaceutical Chemistry, in the Faculty of Science and Technology, Rashtasant 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. Puja. K. Badne** under my guidance and to my satisfaction.

The thesis is now ready for examination.

**Place: Nagpur**

**Date: 14/07/2022**

**Dr. D. R. Chaple**  
(Research guide)

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

**Analytical Method Development and Validation of Tapentadol  
Hydrochloride and Carisoprodol in Bulk and Marketed  
Formulation**

**THESIS**

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.**

**By**

**Sachin S. Padole**

**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**

**2021-2022**



LOKMATYAJI BHARATIYAN SIKSHAN SANSTHA'S

**PRIYADARSHINI J. L. COLLEGE OF PHARMACY**

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

Electronics Zone Building, MIDC, Durgam Road, Nagpur-440010 (M.P.)

Tel & Fax No. (01-2104-29540, E-mail: jlcop\_ugp@rediffmail.com Website: WWW.PJLCP.EDU.IN

Approved By AICTE & DDE, New Delhi. (NAAC' Affiliated) Affiliated to R. J. M. Nagpur University Nagpur.

**Dr. D. R. Chaple**

M. Pharm, Ph.D.

Principal and Professor

**CERTIFICATE**

This is to certify that the work investigations described in this thesis, entitled **"Analytical Method Development and Validation of Tapentadol Hydrochloride and Carisoprodol in Bulk and Marketed Formulation"** 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 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. Sachin S. Padole** under my guidance and to my satisfaction.

This thesis is now ready for examination.

Place: Nagpur

Date: 11/07/2022

Dr. D. R. Chaple

(Principal & Guide)

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

**Analytical Method Development and Validation of Ticagrelor and Aspirin by QbD Approach in Pharmaceutical Dosage Form**

**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 Tukdoji Maharaj Nagpur University, Nagpur

**SUBMITTED BY**

**Soumya G. Katre**

**(B. Pharm)**



**RESEARCH GUIDE**

**Dr. (Mrs) M.P. Yeole**

**(M. Pharm, Ph. D)**

*Examined  
For  
3.8.2022*



**Priyadarshini J. L. College of Pharmacy,**

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

**(2021-2022)**



LOKMANYA 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: jloep\_nagpur@rediffmail.com Website: www.jloep.edu.in

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

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

### **CERTIFICATE**

This is to certify that the work investigations described in this thesis, entitled "**Analytical Method Development and Validation of Ticagrelor and Aspirin by QbD Approach in Pharmaceutical Dosage Form**" 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 the Priyadarshini J. L. College of Pharmacy, Nagpur, by **Ms. Soumya G. Katre** under guidance of **Dr. (Mrs) Manjusha P. Yeole** Assistant Professor, Pharmaceutical Chemistry Department, Priyadarshini J. L. College of Pharmacy, Nagpur.

This thesis is now ready for examination.

Place: Nagpur

Date: 14/07/22

**Dr. D. R. Chaple**

(Principal)

Priyadarshini J. L. College of  
Pharmacy, Nagpur.

**ANALYTICAL METHODS DEVELOPMENT AND  
VALIDATION OF GLUCOSAMINE SULPHATE AND ITS  
IMPURITIES BY USING AQbD APPROACH**

**THESIS**

Submitted in partial fulfilment of the requirement for Degree of

**MASTER OF PHARMACY**

**IN**

**PHARMACEUTICAL CHEMISTRY**

In the faculty of Science and Technology

Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur

By

**Miss. Kanchan T. Sawarkar**

B. Pharm.

**Research Guide**

**Dr. (Mrs.) Alpana J. Asnani**

M. Pharm., Ph.D.



**PRIYADARSHINI J. L. COLLEGE OF PHARMACY  
ELECTRONIC ZONE, MIDC, HINGNA ROAD,  
NAGPUR- 440016  
2021-2022**



LOKMANYA TILAK JANKALYAN SHIKSHAN SANSTHAN

**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: +91-7104-200310, E-mail: [colp@priyadarshini.edu.in](mailto:colp@priyadarshini.edu.in) Website: [www.priyadarshini.edu.in](http://www.priyadarshini.edu.in)

(Approved By AICTE & BTE, 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

**CERTIFICATE**

This is to certify that the work investigations described in this thesis, entitled "**Analytical Methods Development and Validation of Glucosamine Sulphate and its Impurities by Using AQB D Approach**" 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 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. Kanchan T. Sawarkar** under guidance of **Dr. (Mrs.) Alpna 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: 14/07/2022

**Dr. D. R. Chaple**

(Principal)

**PRINCIPAL**

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



**Development and Validation of Analytical Methods for  
Detection of Escitalopram Oxalate and its Impurities by  
AQbD Approach**

**THESIS**

Submitted in partial fulfilment of the requirement for Degree of

**MASTER OF PHARMACY**

**IN**

**PHARMACEUTICAL CHEMISTRY**

**In the faculty of Science and Technology**

**Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur**

**By**

**Ms. Jaya S. Ikhar**

**B. Pharm.**

**Guide**

**Dr. (Mrs.) Alpana J. Asnani**

**M. Pharm., Ph.D.**



**Priyadarshini J. L. College Of Pharmacy  
Electronic Zone, Midc, Hingna Road,  
Nagpur- 440016**

**2021-2022**



DR. M. S. J. L. CHATURVEDI'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. 91-7104-242109 Email: [pcp@priyadarshini.edu.in](mailto:pcp@priyadarshini.edu.in) Website: [www.pcp.edu.in](http://www.pcp.edu.in)  
(Approved By AICTE & New Delhi; Affiliated to R.T.M. Nagpur University Nagpur)

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

### CERTIFICATE

This is to certify that the work investigations described in this thesis, entitled "**Development and Validation of Analytical Methods for Detection of Escitalopram Oxalate and its Impurities by Analytical Quality by Design Approach**" 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 the Priyadarshini J. L. College of Pharmacy, Nagpur, by Ms. Jaya S. Ikhari under guidance of Dr. (Mrs.) Alpana 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: 14/07/2022

Dr. D. R. Chaple

(Principal)

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

**One Pot Synthesis and Biological Evaluation of Some  
Pyrano[2,3-c]pyrazole Derivatives Using ZnO  
Nanoparticles as Catalyst**

**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**

**Ashwini G. Bhope**

**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**

**2021-2022**



**प्रीयदर्शिनी ज. ल. कॉलेज ऑफ फार्मसी**  
**PRIYADARSHINI J. L. COLLEGE OF PHARMACY**

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

Electronic Zone Building MIDC, Nagpur Road, Nagpur-441114 (M.S.)

Tel. Fax No. 071-2554-2006/10 P-mail: [joconam@rediffmail.com](mailto:joconam@rediffmail.com) Website: [www.priyadarsini.edu.in](http://www.priyadarsini.edu.in)

(Approved By AICTE & State Council, Affiliated to P. U. M. Nagpur University (Nagpur))

ACCREDITED WITH GRADE 'B' BY UGC

**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 "**One Pot Synthesis and Biological Evaluation of Some Pyrazolo[2,3-c]pyrazole Derivatives Using ZnO Nanoparticles as Catalyst**" 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 the Priyadarshini J. L. College of Pharmacy, Nagpur, by **Ms. Ashwini G. Bhope** under guidance of **Dr. (Mrs.) A. J. Asrani** Professor and Head of Pharmaceutical Chemistry Department, Priyadarshini J. L. College of Pharmacy, Nagpur.

This thesis is now ready for examination.

Place: Nagpur

Date: 14/07/2022

**Dr. D. R. Chaple**

(Principal)

PRINCIPAL

Priyadarshini J. L. College of  
Pharmacy, Nagpur.

**Design, Synthesis and Computational  
Mechanistic Study of 1,3-thiazole Derivatives to  
Constraint Cardiovascular Risk Factors**

**THESIS**

**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**

*By*

**Ms. Samruddhi S. Khonde**

**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**

**2021-2022**



LOKMANYA TILAK JANKALYAN SHIKSHANSANSTHA'S

**PRIYADARSHINI J. L. COLLEGE OF PHARMACY**

(Formerly called: J. L. Chaurvedi College of Pharmacy)

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

Tel. & Fax No. : 01 07101 - 299510, E-mail: principal@pjlc.edu.in Website: www.pjlc.edu.in  
(Approved By AICTE & DTE, New Delhi, (NAAC) Affiliated/Accredited to B. T. M. Nagpur University Nagpur.)

**Dr. D. R. Chaple**

M. Pharm, Ph.D.

Professor and Principal

Priyadarshini J. L. College of Pharmacy,  
Nagpur

**CERTIFICATE**

This is to certify that the work investigations described in this thesis, entitled "**Design, Synthesis and Computational Mechanistic Study of 1,3-thiazole Derivatives to Constraint Cardiovascular Risk Factors**" submitted partial fulfillment of requirement for degree of Master of Pharmacy in Pharmaceutical Chemistry, in the faculty of Science and Technology, Rashtasant 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 the Priyadarshini J. L. College of Pharmacy, Nagpur, by **Ms. Samruddhi S. Khonde** under my guidance.

This thesis is now ready for examination.

Place: Nagpur

Date: 20/07/2022

**Dr. D. R. Chaple**

Principal & Guide

**PRINCIPAL**

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

**Novel Analytical Methods Development for Sildenafil Citrate and  
Dapoxetine Hydrochloride in Bulk, Pharmaceutical Formulation and  
Biological Fluid**

**THESIS**

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.**

**By**

**Ashish S. Moghe**

**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**

**2021-2022**



LEKSHMAYA TEJAS JUNGAL VASU CHANDRASEKHAR

**PRIYADARSHINI J. L. COLLEGE OF PHARMACY**

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

Electronics Zone Building, MITP, Darga Road, Nagpur-44110, M.P.

Tel. & Fax No. +91-7134-299513, E-mail: jlcop\_nagpur@rediffmail.com Website: www.jlcop.edu.in

(Approved By AJCTE & DTE, New Delhi; (U.A.C. Affiliated); Affiliated to P. U. Nagpur University, Nagpur)

**Dr. D. R. Chaple**  
M. Pharm, Ph.D.  
Principal and professor

**CERTIFICATE**

This is to certify that the work investigations described in this thesis, entitled "Novel Analytical Methods Development for Sildenafil Citrate and Dapoxetine Hydrochloride in Bulk, Pharmaceutical Formulation and Biological Fluid" 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 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 S. Moghe under my guidance and to my satisfaction. This thesis is now ready for examination.

Place: Nagpur

Date: 14/07/2022

Dr. D. R. Chaple

(Principal)  
PRINCIPAL

Priyadarshini J. L. College of  
Pharmacy, Nagpur.



**FORMULATION AND EVALUATION OF HERBAL  
GRANULES FOR IMMUNOBOOSTER POTENTIAL  
IN COMPARISON WITH AYUSH KADHA**

**THESIS**

Submitted in Partial Fulfillment of Requirements for the Degree of  
**MASTER OF PHARMACY**

**IN**

**PHARMACOGNOSY**

In the Faculty of Science and Technology

Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur

*Submitted By*

**Shubham P. Bhute**

(B. Pharm)

*Research Guide*

**Dr. Vijay D. Gulkari**

(M. Pharm, Ph.D.)



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

**(2021-2022)**

Priyadarshini J. L. College of Pharmacy,  
Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.  
2021-2022



**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 Evaluation of Herbal Granules for Immunobooster Potential in Comparison with Ayush Kadha**", is 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 **Shubham Pralhad Bhute**, under the guidance supervision of **Dr. Vijay D. Gulkari**, Priyadarshini J. L. College of Pharmacy, Nagpur.

This dissertation is now ready for examination.

Place: Nagpur

Date: 30/07/2022

**Dr. Dinesh. R. Chaple**  
(Principal)

PRINCIPAL  
Priyadarshini J. L. College of Pharmacy, Nagpur

# Preparation and Standardization of Different Triphala Formulations

## THESIS

Submitted in Partial Fulfillment of Requirements for the Degree of  
**MASTER OF PHARMACY**

IN

**PHARMACOGNOSY**

In the Faculty of Science and Technology

Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur

*Submitted By*

**MS. Sharvari P. Naikwade**

(B. Pharm)

*Research Supervisor*

**Mrs. Shailju G. Gurunani**

(M. Pharm)



**PRIYADARSHINI J. L. COLLEGE OF PHARMACY**  
**ELECTRONIC ZONE BUILDING, MIDC, HINGNA ROAD,**

**NAGPUR-440016**

**(2021-2022)**

Priyadarshini J. L. College of Pharmacy,  
Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.  
2021-2022



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

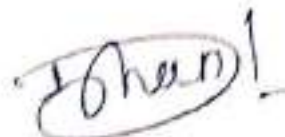
### CERTIFICATE

This is to certify that the work investigation described in this dissertation entitled, "**Preparation and Standardization of Different Triphala Formulations**", is 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. Sharvari P. Nalkwade**, under the guidance and supervision of **Mrs. S. G. Gurunani**

This dissertation is now ready for examination.

Place: Nagpur

Date: 20/07/2022



**Dr. Dinesh. R.Chaple**  
(Principal)

PRINCIPAL

Priyadarshini J. L. College of  
Pharmacy, Nagpur.

# STANDARDIZATION OF *NIGELLA SATIVA* HOMEOPATHIC MOTHER TINCTURE

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

**Ms. Puja O. Dahikar**

(B. Pharm)

Under the guidance of

**Mrs. Shailju G. Gurunani**

(M. Pharm)



PRIYADARSHINI J. L. COLLEGE OF PHARMACY,

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

(2021-2022)

Priyadarshini J. L. College of Pharmacy,  
Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.  
2021-2022



**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, “**Standardization of *Nigella Sativa* Homeopathic Mother Tincture**”, is 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. Puja O. Dahikar**, under the guidance and supervision of **Mrs. S. G. Gurunani**

This dissertation is now ready for examination.

Place: Nagpur

Date: 29/07/2022

  
**Dr. Dinesh R. Chaple**

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

**FORMULATION AND EVALUATION OF  
NIGELLA SATIVA SEED OIL EMULGEL PEEL  
OFF FACE MASK**

**THESIS**

Submitted in partial fulfilment of Requirements for Degree of

**MASTER OF PHARMACY**

**IN**

**PHARMACOGNOSY**

In the Faculty of Science and Technology

Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur.

*Submitted by*

**Ms. Monu Y. Hedaoo**

**(B. Pharm)**



*Research Guide*

**Mrs. Shailju G. Gurunani**

**(M. Pharm)**



**PRIYADARSHINI J. L. COLLEGE OF PHARMACY,**

**ELECTRONIC ZONE, MIDC, HINGNA ROAD, NAGPUR-16.**

**2021-2022**

# PRIYADARSHINI J. L. COLLEGE OF PHARMACY,

ELECTRONIC ZONE, MIDC, HINGNA ROAD, NAGPUR-16.

2021-2022



**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 Evaluation of *Nigella Sativa* seed oil Emulgel Peel off Face Mask**", is 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 been carried out in laboratories of Priyadarshini J. L. College of Pharmacy, Nagpur by **Ms. Monu Y. Hedao**, under the guidance and supervision of **Mrs. S. G. Gurunani**, Assistant Professor, Priyadarshini J. L. College of Pharmacy, Nagpur.

This dissertation is now ready for examination.

Place: Nagpur

Date: 27/07/2022

**Dr. Dinesh R. Chaple**  
(Principal)

Priyadarshini J. L. College of  
Pharmacy, Nagpur.



**Microbiological Qualification of Pre-filled Syringe line Isolator**

***Thesis***

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. Rani. V. Sutone**

**(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  
2021-2022**

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Priyadarshini J. L. College of Pharmacy,  
Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur-440016  
2021-2022



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 "**Microbiological Qualification of Pre-filled syringe line Isolator**", is submitted in the partial fulfilment of the requirement for the degree of **Master of Pharmacy in Pharmaceutics**, in the faculty of Medicine, **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 **Injectable Validation** department of **Lupin Pharmaceutical LTD, Nagpur** by **Ms. Rani Vijay Sutone**, 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: 21/7/2022

Dr. D. R. Chaple  
(Principal)  
PRINCIPAL

Priyadarshini J. L. College of  
Pharmacy, Nagpur.

**ENHANCEMENT OF SOLUBILITY OF POORLY  
WATER-SOLUBLE DRUG USING COMPLEXOL**

**A DISSERTATION**

**Submitted In 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.*

**Submitted By**

**Ms. Ankita G. Jaunjal  
(B. Pharm.)**

**Research Guide**

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



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

**2021-2022**



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

**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 thesis, entitled **"ENHANCEMENT OF SOLUBILITY OF POORLY WATER-SOLUBLE DRUG USING COMPLEXOL"** 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 Priyadarshini J. L. College of Pharmacy, Nagpur, by **Ms. Ankita G. Jaunjale**, under the guidance and supervision of **Dr. Mrs. S. S. Bakhle**, Priyadarshini J. L. College of Pharmacy, Nagpur.

This dissertation is now ready for examination.

**Place: Nagpur**

**Date: 02/07/2022**

**Dr. D. R. Chaple**

**Principal**

**PRINCIPAL**

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

**DEVELOPMENT AND CHARACTERIZATION OF SOLID SELF  
MICRO EMULSIFYING DRUG DELIVERY SYSTEM (S-SMEDDS) FOR  
IMPROVED ORAL DELIVERY OF POORLY SOLUBLE DRUG  
A DISSERTATION**

*Submitted 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**

**Poonam Vishweshvar Kothe**

**(B.Pharm)**

**Guide**

**Dr. Mrs. S. S. Bakhle**

**(M.Pharm, Ph.D.)**



**DEPARTMENT OF PHARMACEUTICS  
PRIYADARSHINI J. L. COLLEGE OF PHARMACY  
ELECTRONIC ZONE BUILDING, MIDC, HINGNA ROAD,  
NAGPUR-440016  
2021-2022**



Priyadarshini J. L. College of Pharmacy, Nagpur  
ELECTRONIC ZONE BUILDING, MIDC, HINGNA ROAD,  
NAGPUR-440016

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

### **CERTIFICATE**

This is certify that the work investigation described in this dissertation entitled  
**"DEVELOPMENT AND CHARACTERIZATION OF SOLID SELF  
MICRO EMULSIFYING DRUG DELIVERY SYSTEM (S-SMEDDS) FOR  
IMPROVED ORAL DELIVERY 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 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 **Miss. Poonam V.  
Kothe**, under the guidance and supervision of **Dr. Mrs. S. S. Bakhle**, Priyadarshini J. L.  
College of Pharmacy, Nagpur.

This dissertation is now ready for examination.

Place: Nagpur

Date: 06/07/2022

**Dr. D. R. Chaple**

(Principal)

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

**SOLUBILITY AND DISSOLUTION ENHANCEMENT OF POORLY  
WATER SOLUBLE DRUG BY CO-CRYSTALLIZATION**

**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 Maharaj Nagpur University, Nagpur*

Submitted by  
**Vishal C. Ramteke**  
(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

2021-2022



**PRIYADARSHINI J. L. COLLEGE OF PHARMACY**

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

Dr. D. R. Chaple

M. Pharm. Ph. D

Principal

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

**CERTIFICATE**

This is certify that the work investigation described in this dissertation entitled "SOLUBILITY AND DISSOLUTION ENHANCEMENT OF POORLY WATER SOLUBLE DRUG BY CO-CRYSTALLIZATION" 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 **Mr. Vishal C. Ramteke** 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: 12/07/2022

Dr. D. R. Chaple

(Principal)

**PRINCIPAL**

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



**PHARMACOGNOSTICAL EVALUATION OF *URARIA PICTA*, *URARIA LAGOPOIDES* AND *PSEUDARTHRIA VISCIDA* AS PER WHO GUIDELINES**

Submitted for the approval of thesis in partial fulfillment of  
Requirements for the Degree of  
MASTER OF PHARMACY  
IN  
PHARMACOGNOSY  
In the Faculty of Science and Technology,  
Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.

Submitted By  
**Disha A. Mool**  
(B. Pharm)

Research Guide  
**Dr. Vijay D. Gulkari**  
(M. Pharm, Ph. D)



**PRIYADARSHINI J.L COLLEGE OF PHARMACY,  
ELECTRONIC ZONE BUILDING, MIDC, HINGNA ROAD, NAGPUR  
2021- 22**



Priyadarshini J. L. College of Pharmacy,  
Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur  
2021- 22



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 "*Pharmacognostical evaluation of *Uraria picta*, *Uraria lagopoides* and *Pseudarthria viscida* as per WHO guidelines*", is submitted in the partial fulfilment of the requirement for the degree of Master of Pharmacy in Pharmacognosy, in the faculty of Medicine, **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 **Disha A. Mool**, under the guidance and supervision of Dr. Vijay D. Gulkari, Priyadarshini J. L. College of Pharmacy, Nagpur.

This dissertation is now ready for examination.

Place: Nagpur

Date: 01/08/2022

Dr. D. R. Chaple

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

**SOLUBILITY ENHANCEMENT OF POORLY WATER-SOLUBLE DRUG BY  
HOT MELT EXTRUSION USING HYDROPHILIC POLYMER**

*A DISSERTATION*

Submitted for the approval of thesis in partial fulfillment 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  
Nikhil P. Nahokar  
(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  
2021-2022**



PRIYADARSHINI J. L. COLLEGE OF PHARMACY  
Electronic Zone Building, MIDC, Hingna Road, Nagpur- 440016  
2021-2022

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 "SOLUBILITY ENHANCEMENT OF POORLY WATER-SOLUBLE DRUG BY HOT MELT EXTRUSION USING HYDROPHILIC POLYMER" 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, **Rashtasant 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 **Nikhil P. Nahokar**, under the guidance and supervision of **Dr. G. R. Dixit**, Priyadarshini J. L. College of Pharmacy, Nagpur.

This dissertation is now ready for examination.

Place: Nagpur

Date: 14/07/2022

Dr. D. R. Chaple

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

**FORMULATION DEVELOPMENT AND EVALUATION OF SUSTAINED  
RELEASE TABLET OF POORLY WATER SOLUBLE DRUG**

*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 Maharaj Nagpur University, Nagpur

Submitted By  
**Sachin K. Takras**  
(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

2021-2022



PRIYADARSHINI J. L. COLLEGE OF PHARMACY  
Electronic Zone Building, MIDC, Hingna Road, Nagpur- 440016

2021-2022

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 "FORMULATION DEVELOPMENT AND EVALUATION OF SUSTAINED RELEASE TABLET OF POORLY WATER SOLUBLE DRUG" 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 **M.J. Biophrama Pvt. Ltd. Navi Mumbai**, by **Sachin K. Takras**, under the guidance and supervision of **Dr. G. R. Dixit**, Priyadarshini J. L. College of Pharmacy, Nagpur.

This dissertation is now ready for examination.

Place: Nagpur

Date: 20/07/2022

Dr. D. R. Chaple

(Principal)

PRINCIPAL

Priyadarshini J. L. College of  
Pharmacy, Nagpur.

**FORMULATION AND EVALUATION OF PARENTERAL  
PREPARATION CONTAINING POORLY WATER SOLUBLE DRUG**

**A DISSERTATION**

Submitted for the approval of thesis in partial fulfillment 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**  
**Pranjali A. Mokashi**  
**(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**

**2021-2022**



**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 certify that the work investigation described in this dissertation entitled **"FORMULATION AND EVALUATION OF PARENTERAL PREPARATION CONTAINING POORLY WATER SOLUBLE DRUG"** 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, and Genetek Life Science Pvt., Ltd (Injectable Division) Wardha, by **Pranjali A. Mokashi**, 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: 14/07/2022

**Dr. D. R. Chaple**

(Principal)

**PRINCIPAL**

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



# FORMULATION AND EVALUATION OF HERBAL SCRUB AND FACE MASK

*A Thesis*

Submitted in partial fulfillment of requirements for Degree of

MASTER OF PHARMACY

IN

PHARMACOGNOSY

In the faculty of Science and Technology

Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur.

Submitted By

Apurva C. Somkuwar  
(B. Pharm)

Research Guide

Dr. Vijay D. Gulkari  
(M. Pharm, Ph. D)



PRIYADARSHINI I. L. COLLEGE OF PHARMACY,  
ELECTRONIC ZONE, MIDC, HINGNA ROAD NAGPUR- 440016

2021-2022



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

2021-2022



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 "Formulation And Evaluation Of Herbal Scrub And Face Mask", is submitted in the partial fulfillment of requirement for the degree of Master of Pharmacy in Pharmacognosy, in the faculty of Medicine, 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 submitted by Apurva C. Somkuwar under the guidance supervision of Dr. Vijay D. Gulkari, Priyadarshani J.L. college of Pharmacy, Nagpur.

This dissertation is now ready for examination

Place: Nagpur

Date: - 6/10/2022

Dr. D.R. Chaple

(Principal)

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

**PRECLINICAL INVESTIGATIONS OF NEW DRUG ENTITY  
FOR ANTI-ALZHEIMER ACTIVITY**

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. Rohan R. Bansod

(B. Pharm)

**Research guide**

Dr. Shilpa Deshpande

(M. Pharm, Ph. D.)



Department of Pharmacology

**Priyadarshini J. L. College of Pharmacy,**

ELECTRONIC ZONE BUILDING, MIDC, HINGNA ROAD,

NAGPUR-440016

(2021-2022)



**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 INVESTIGATIONS OF NEW DRUG ENTITY FOR ANTI-ALZHEIMER ACTIVITY" 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. Rohan R. Bansod, under the guidance and supervision of Dr Shilpa A. Deshpande, Associate professor, Priyadarshini J. L. College of Pharmacy, Nagpur*

*Date: 14/07/2022*  
*Place: Nagpur*

**Dr D.R. Chaple**  
**(Principal)**  
**PRINCIPAL**

**Priyadarshini J. L. College of**  
**Pharmacy, 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 investigations described in this dissertation, entitled "PHARMACOLOGICAL EVALUATION OF NOVEL FORMULATION FOR ITS ROLE IN NEURODEGENERATIVE DISORDER" is submitted in partial fulfillment 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 Miss. Sonali S. Hiranwar, under the guidance and supervision of Dr.Shilpa A. Deshpande, Associate professor, Priyadarshini J.L.College of Pharmacy, Nagpur*

**Date: 14/July/2022**  
**Place: Nagpur**

**Dr D.R. Chaple**  
**(Principal)**

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

*Pharmacological Evaluation of Topical Formulation For  
Antipsoriatic And Anihemorrhoidal Activity*

*A DISSERTATION*

*Submitted in partial fulfilment of the requirement for the Degree  
of*

**Master of Pharmacy**

**in**

**Pharmacology**

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

*Submitted By*

Mis. Roshani Prabhakar Sautkar

(B. Pharm)

*Guide*

Dr. (Mrs.) Shilpa A. Deshpande

(M. Pharm, Ph.D)



**Department of Pharmacology**

**PRIYADARSHINI J. L. COLLEGE OF PHARMACY**

**ELECTRONIC ZONE, MIDC, HINGNA ROAD,**

**NAGPUR- 440016**

**2021-2022**



*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 "Pharmacological Evaluation of Topical Formulation for Anti-psoriatic and Antihemorrhoidal 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 Miss. Roshani Prabhakar Sautkar, under the guidance and supervision of Dr. Mrs. Shilpa A. Deshpande, Associate professor Priyadarshini J. L. College of Pharmacy, Nagpur.*

*This dissertation is now ready for examination.*

*Date: 14/07/2022*

*Place: Nagpur*

*Dr. D. R. Chaple*

*(Principal)*

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



**PHARMACOLOGICAL APPROACH FOR  
BIOAVAILABILITY ENHANCEMENT OF SOME  
ANTI-PSYCHOTIC DRUGS**

**A DISSERTATION**

*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. Pratik M. Naole  
(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  
2021-2022**



**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 "**PHARMACOLOGICAL APPROACH FOR BIOAVAILABILITY ENHANCEMENT OF SOME ANTI- PSYCHOTIC DRUGS**" 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. Pratik M. Naole, under the guidance and supervision of Dr. Shilpa A. Deshpande, Associate professor, Head of the Pharmacology department at Priyadarshini J. L. College of Pharmacy, Nagpur.

This dissertation is now ready for examination.

Date: 14/07/2022  
Place: Nagpur

**Dr. D. R. Chaple**  
(Principal)

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

# **FORMULATION AND EVALUATION OF HERBAL FAST DISSOLVING ORAL FILM USING NATURAL POLYMER**

**A DISSERTATION**

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

**MASTER OF PHARMACY**

**IN**

**PHARMACEUTICS**

In the Faculty of Science and Technology,

Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur

**By**

Miss. Bramhananda D. Padole

B. Pharm

**Guide**

Dr. Rahul H. Kasliwal

M. Pharm., Ph.D.



**PRIYADARSHINI J. L. COLLEGE OF PHARMACY,**

Electronic Zone Building, MIDC, Hingna Road,

Nagpur-44016

**2021-2022**

Priyadarshini J. L. College of Pharmacy,  
Electronic Zone Building, MIDC, Hingna Road, Nagpur-44016

2021-2022



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 and Evaluation of Herbal Fast Dissolving Oral Film Using Natural Polymer", is submitted in the partial fulfillment of 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 Priyadarshini J. L. College of Pharmacy, Nagpur by Miss. Bramhananda D. Padole, under the guidance supervision of Dr. Rahul H. Kasliwal, of Priyadarshini J. L. College of Pharmacy, Nagpur.

This dissertation is now ready for examination.

Place: Nagpur

Date: 14/07/2022

Dr. D.R. Chaple  
(Principal)  
PRINCIPAL

Priyadarshini J. L. College of  
Pharmacy, Nagpur.

**FORMULATION DEVELOPMENT AND EVALUATION OF *CARICA*  
*PAPAYA* AND *TINOSPORA CARDIFOLIA* HERBAL MICROBEADS**

**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 Maharaj Nagpur University, Nagpur.

**Submitted By**

**Miss. Priyanka D. Nakade**  
**(B. Pharm)**

**Research guide**

**Dr. Rahul H. Kasliwal**  
**(M. Pharm, Ph. D)**



**PRIYADARSHINI J.L. COLLEGE OF PHARMACY,**

**ELECTRONIC ZONE BUILDING, MIDC, HINGNA ROAD,**

**NAGPUR-44016**

**2021-2022**

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

2021-2022



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 Development and Evaluation of *carica papaya* and *Tinospora cardifolia* herbal Microbeads" is submitted in the partial fulfillment of 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 Priyadarshini J.L. College of Pharmacy, Nagpur by **Priyanka D. Nakade**, under the guidance supervision of **Dr. Rahul H. Kasliwal**, Assistant Professor, Priyadarshini J.L. College of Pharmacy, Nagpur.

This dissertation is now ready for examination.

Place: Nagpur

Date: 08/07/2022

**Dr. D. R. Chaple**  
(Principal)

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

**PHARMACOLOGICAL EVALUATION OF  
AGMATINE IN RODENT MODELS OF MUSCLE  
ATROPHY**

**A DISSERTATION**

*Submitted in partial fulfillment of requirements for Degree of*

**MASTER OF PHARMACY**

**IN**

**PHARMACOLOGY**

*In the Faculty of Science and Technology,*

*Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur*

**Submitted By**

**Miss. Ulka R. Raut  
(B.Pharm)**

**Guide**

**Dr. Shubbada V. Mangrulkar**

**(M.S.PHARM,Ph.D)**



**DEPARTMENT OF PHARMACOLOGY, PRIYADARSHINI**

**J.L. COLLEGE OF PHARMACY, ELECTRONIC ZONE**

**BUILDING, MIDC, HINGNA ROAD, NAGPUR-44016**

**2021-2022**

Priyadarshini J.L College of Pharmacy,  
Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur  
2021-2022



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 "Pharmacological evaluation of Agmatine in Rodent models of muscle atrophy", is submitted in the partial fulfillment of the degree of **Master of Pharmacy in Pharmacology**, in the faculty of Science and Technology, Rashtrasant Tukdoji 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 Priyadarshini J.L. College Of Pharmacy, Nagpur by Miss. Ulka R. Raut, under the guidance supervision of **Dr. Shubhada V. Mangrulkar**, of Priyadarshini J.L. College Of Pharmacy, Nagpur. This dissertation is now ready for examination.*

Place: Nagpur

Date: 30/08/2022

Dr. D.R. Chaple  
(Principal)

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



**PRECLINICAL INVESTIGATIONS ON NOVEL FORMULATION IN  
MURINE VOLUMETRIC MUSCLE LOSS INJURY MODEL**

**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.*

**Research Scholar**

**MISS. RAGINI P. JADHAO**

(B. Pharm)

**Research Guide**

**DR. SHUBHADA V. MANGRULKAR**

(Ms. Pharm, Ph. D.)



**DEPARTMENT OF PHARMACOLOGY**

**PRIYADARSHINI J. L. COLLEGE OF PHARMACY,**

**ELECTRONIC ZONE BUILDING, MIDC, HINGNA ROAD,**

**NAGPUR-440016, MAHARASHTRA.**

**(2021-2022)**



**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 Investigations On Novel Formulation In Murine Volumetric Muscle Loss Injury Model" 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 laboratories of the Priyadarshini J. L. College of Pharmacy, Nagpur, by Miss. Ragini P. Jadhao under my guidance and supervision.*

*This dissertation is now ready for examination*

**Date:** 30/07/2022  
**Place:** Nagpur

**Dr. D.R. Chaple**  
**(Principal)**

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

**PRECLINICAL INVESTIGATIONS ON NOVEL AGENT IN  
ALZHEIMER'S DISEASE LIKE CONDITION**

**A DISSERTATION**

*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*

**Research Scholar**

**Miss. Sarika Gajanan Lonkar**

**(B.Pharm)**

**Research Guide**

**Dr. Mrs. Shubhada V. Mangrulkar**

**(M. Pharm, Ph.D)**



**Department of Pharmacology  
Priyadarshini J.L. College of Pharmacy,  
Electronic zone, M.I.D.C., Hingna Road, Nagpur-440016  
2021-2022**




*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 INVESTIGATIONS ON NOVEL AGENT IN***  
***ALZHEIMER'S DISEASE 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 Miss.*  
*Sarika G. Lonkar, under the guidance and supervision of Dr. Mrs.*  
*Shubhada V. Mangrulkar, Assistant professor, Priyadarshini J. L.*  
*College of Pharmacy, Nagpur.*

*This dissertation is now ready for examination.*

**Date:** 30/07/2022  
**Place:** Nagpur

  
**Dr. D. R. Chaple**  
**(Principal)**

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

**PRECLINICAL INVESTIGATIONS ON ROLE OF NANO-  
ENCAPSULATED HERBAL DRUGS IN SILICA-INDUCED  
LUNG FIBROSIS**

**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.*

**Research Scholar**

**MR. RAUNAK ISHWAR HARODE**

(B. Pharm)

**Research Guide**

**DR. SHUBHADA V. MANGRULKAR**

(Ms. Pharm, Ph. D.)



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

**(2021-2022)**



**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 Investigations On Role Of Nano- Encapsulated Herbal Drugs In Silica-Induced Lung Fibrosis" 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. Raunak Ishwar Harode, under the guidance and supervision of Dr. Shubhada V. Mangrulkar, Associate professor, Priyadarshini J. L. College of Pharmacy, Nagpur*

**Date:** 30/07/2022  
**Place:** Nagpur

  
**Dr. D.R. Chaple**  
**(Principal)**

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

**DEVELOPMENT, OPTIMIZATION AND EVALUATION  
OF CO-CRYSTALS OF BCS CLASS IV DRUG  
THESIS**

*Submitted 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

**Pallavi Madhukar Londhey**

**(B.Pharm)**

Guide

**Dr. Mrs. K. P. Upadhye**

**(M.Pharm, Ph.D.)**



**DEPARTMENT OF PHARMACEUTICS  
PRIYADARSHINI J. L. COLLEGE OF PHARMACY  
ELECTRONIC ZONE BUILDING, MIDC, HINGNA ROAD,  
NAGPUR-440016**

**2021-2022**



**Priyadarshini J. L. College of Pharmacy, Nagpur**  
**ELECTRONIC ZONE BUILDING, MIDC, HINGNA ROAD,**  
**NAGPUR-440016**

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

### **CERTIFICATE**

This certify that the work investigation described in this thesis entitled “**DEVELOPMENT, OPTIMIZATION AND EVALUATION OF CO-CRYSTALS OF BCS CLASS IV DRUG**” 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 Miss. **Pallavi M. Londhey**, under the guidance and supervision of **Dr. Mrs. Kanchan P. Upadhye**, Priyadarshini J. L. College of Pharmacy, Nagpur.

This thesis is now ready for examination.

Place: Nagpur

Date: 14/07/2022

**Dr. D. R. Chaple**

(Principal)

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



**FORMULATION AND EVALUATION OF  
CLOTRIMAZOLE LOADED MICROSPONGES  
BY USING NATURAL GUM**

*A DISSERTATION*

*Submitted In 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.*

**Submitted By**

**Sakshi V. Maske  
(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**

**2021-2022**



**PRIYADARSHINI J. L. COLLEGE OF PHARMACY**  
Electronic Zone Building, MIDC, Hingna Road, Nagpur – 440016

**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 CLOTRIMAZOLE LOADED MICROSPONGES BY USING NATURAL GUM" 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 Priyadarshini J. L. College of Pharmacy, Nagpur, by **Miss. Sakshi Vilas Maske**, under the guidance and supervision of **Dr. Mrs. K. P. Upadhye**, Priyadarshini J. L. College of Pharmacy, Nagpur.

This thesis is now ready for examination.

Place: Nagpur

Date: 14/07/22

**Dr. D. R. Chaple**

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

**PREPARATION AND *IN-VITRO* EVALUATION  
OF MICONAZOLE LOADED  
MICROSPONGES USING DIFFERENT  
POLYMERS**

*A DISSERTATION*

*Submitted In 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.*

**Submitted By**

**Yogini Charandas Shete**

**(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**

**2021-2022**



**PRIYADARSHINI J. L. COLLEGE OF PHARMACY**  
Electronic Zone Building, MIDC, Hingna Road, Nagpur – 440016

**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 “**PREPARATION AND *IN-VITRO* EVALUATION OF MICONAZOLE LOADED MICROSPONGES USING DIFFERENT POLYMERS**” 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 Priyadarshini J. L. College of Pharmacy, Nagpur, by Miss. Yogini Shete, under the guidance and supervision of Dr. Mrs. K. P. Upadhye, Priyadarshini J. L. College of Pharmacy, Nagpur.

This thesis is now ready for examination.

Place: Nagpur

Date: 13/07/2022

**Dr. D. R. Chaple**  
Principal

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

**INVESTIGATIONAL STUDIES ON PHARMACOKINETICS AND  
ANTIDEPRESSANT ACTIVITY OF PHYTOCONSTITUENTS AND  
NANO ENCAPSULATED FORMULATION IN RAT**

**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.*

**Research Scholar**

**MISS. RAGINI ANIL DANI**

(B. Pharm)

**Research Guide**

**DR. SHUBHADA V. MANGRULKAR**

(Ms. Pharm, Ph. D.)



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

**(2021-2022)**



**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 "Investigational studies on pharmacokinetics and antidepressant activity of phytoconstituents and its nano-encapsulated formulation in rats," is submitted in partial fulfillment 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 Miss Ragini Anil Dami, under the guidance and supervision of Dr. Shubhada V. Mangrulkar, Associate professor, Priyadarshini J. L. College of Pharmacy, Nagpur*

**Date:** 30/07/2022  
**Place:** Nagpur

**Dr. D.R. Chaple**  
**(Principal)**

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

**SYNERGISTIC EFFECT OF ISOFLAVONOIDS  
AND PHOSPHOLIPIDS IN TREATMENT OF  
NEURODEGENERATIVE DISORDERS**

**THESIS**

**SUBMITTED TO**

Rashtrosant Tukadoji Maharaj, Nagpur University, Nagpur.

In Partial Fulfillment of Requirements for The Degree of

**MASTER OF PHARMACY  
IN  
PHARMACOGNOSY**

**Submitted by**

**SHRADDHA P. VAIRAGADE**

**(B. Pharm)**



**Guide**

**DR. V. D. GULKARI**

**(M. Pharm, Ph. D.)**



**PRIYADARSHINI J. L. COLLEGE OF PHARMACY,  
ELECTRONIC ZONE BUILDING, MIDC, HINGNA ROAD,**

**NAGPUR-440016[M.S.]**

**(2021-2022)**

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

2021-2022



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, **“Synergistic Effect of Isoflavonoids and Phospholipids in Treatment of Neurodegenerative Disorders”** 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. **Shraddha P. Vairagade**, under the guidance and supervision of **Dr. V. D. Gulkari**.

This dissertation is now ready for examination.

Dr. D. R. Chaple

(Principal)

PRINCIPAL

Priyadarshini J. L. College of  
Nagpur

Place: Nagpur

Date: 06/08/2022



**Polyherbal Topical Formulation Containing Flavonoidal  
Rich Fraction For Skin Disorders**

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

**Mr. Parag B. Gahane**  
(B. Pharm)

Under the guidance of

**Mrs. Shailju G. Gurusani**  
(M. Pharm)



**PRIYADARSHINI J. L. COLLEGE OF PHARMACY**

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

(2021-2022)

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

2021-2022



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, "**Polyherbal Topical Formulation Containing Flavonoidal Rich Fraction For Skin Disorders**", is 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. Parag B. Gahane**, under the guidance and supervision of **Mrs. S. G. Gurunani**

This dissertation is now ready for examination.

Place: Nagpur

Date: 14-July-22

Dr. Dinesh. R. Chaple

(Principal)

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

**FORMULATION AND EVALUATION OF  
HERBAL AYURVEDIC OIL FOR HAIR LOSS**

*Thesis*

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

**MASTER OF PHARMACY  
IN  
PHARMACOGNOSY**

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

**Submitted By**

**Ashwati A. Meshram  
(B. Pharm)**

**Research Guide**

**Dr. Vijay D. Gulkari  
(M. Pharm, Ph.D.)**



**PRIYADARSHINI J. L. COLLEGE OF PHARMACY,  
ELECTRONIC ZONE BUILDING, MIDC, HINGNA ROAD NAGPUR-  
440016, M.S.  
2021-2022**



DR. MANJYA TILAK JAIN, A.Y. ON SHIKSHANANUSHTHAN

PRIYADARSHINI J. L. COLLEGE OF PHARMACY

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

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

Tel. & Fax No. +91-7104-299510, E-mail: [jkcp\\_nagpur@rediffmail.com](mailto:jkcp_nagpur@rediffmail.com) Website:

[www.jlcp.edu.in](http://www.jlcp.edu.in)

(Approved By AICTE & DTE, 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 investigation described in this dissertation, entitled "Formulation and Evaluation of Herbal Ayurvedic Oil for Hair Loss Oil", is submitted in the partial fulfillment of the requirement for the degree of **Master of Pharmacy in Pharmacognosy**, 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 **Ashwati Anil Meshram**, under the guidance supervision of **Dr. Vijay D. Gulkari**, Priyadarshini J. L. College of Pharmacy, Nagpur.

This dissertation is now ready for examination.

Place: Nagpur

Date: 01/08/2022

Dr. D. R. Chaple

(Principal)

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

**EXTRACTION AND CHARACTERIZATIONS OF  
*VIGNA CAPENSIS* FOR NEURODEGENERATIVE  
DISORDERS BY CHEMICALLY IMPAIRMENT  
MEMORY IN EXPERIMENTAL ANIMALS**

**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**

**KALYANI A. DESHPANDE**

**(B. Pharm)**

**Under the guidance of**

**DR. V. D. GULKARI**

**(M. Pharm, Ph. D.)**



**PRIYADARSHINI J. L. COLLEGE OF PHARMACY,**

**ELECTRONIC ZONE BUILDING, MIDC, HINGNA ROAD,**

**NAGPUR-440016[M. S.]**

**(2021-2022)**

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

2021-2022



**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, "*Extraction and Characterizations of *Vigna coarctata* for Neurodegenerative Disorders by Chemically Impairment Memory in Experimental Animals.*" is 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. Kalyani A. Deshpande**, under the guidance and supervision of **Dr. V. D. Gulkari**.

This dissertation is now ready for examination.

Place: Nagpur

Date: 04/08/2022

**Dr. D. R. Chaple**  
(Principal)

PRINCIPAL

**Design, Synthesis and Pharmacological  
Screening of Novel Benzimidazole Derivatives**

**THESIS**

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

*By*

**Valbhav Santosh Nimbekar**

**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**

**2021-2022**



LOKMANYA TILAK JANKALYAN SHIKSHANSANSTHA'S

**PRİYADARSHINI J. L. COLLEGE OF PHARMACY**

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

Electronics Zone Building, AEEC, Hingna Road, Nagpur-480016 (M.S.)

Tel. & Fax No. +91-07314-299510, E-mail: principal@jplp.co.uk Website: www.jplp.edu.in  
(Approved by AICTE & UGC, New Delhi) (NMAC) ADDRESS: A/10/1, K. C. Nagpur University (Nagpur)

**Dr. D. R. Chaple**

M. Pharm, Ph.D.

Professor and Principal

Priyadarshini J. L. College of Pharmacy,  
Nagpur

**CERTIFICATE**

This is to certify that the work investigations described in this thesis, entitled "**Design, Synthesis and Pharmacological Screening of Novel Benzimidazole Derivatives**" submitted 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 the Priyadarshini J. L. College of Pharmacy, Nagpur, by **Mr. Vaibhav Santosh Nimbekar** under my guidance.

This thesis is now ready for examination.

Place: Nagpur

**Dr. D. R. Chaple**  
(Guide)

Date: 14/07/2022

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



# Synthesis, Characterization and Pharmacological Studies of Novel N-1 Substituted Indole Derivatives

THESIS

*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**

Submitted by

**Shubhangi M. Raut**

B. Pharm

Research Guide

**Dr. Dinesh P. Kawade**

M. Pharm, Ph.D.



**PRIYADARSHINI J. L. COLLEGE of PHARMACY**

**ELECTRONIC ZONE BUILDING, MIDC, HINGNA ROAD,**

**NAGPUR-440016**

**2021-2022**



Lokmanya Tilak Jankalyan Shikshan Sanstha's

**Priyadarshini J.L. College of Pharmacy**

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

Electronic Zone Building, MIDC, Hingna Road, Nagpur-440004 (M.S.)

Tel & Fax No. +91-7104-255510, E-mail: jlcyp\_nag@rediffmail.com Website: www.jlcp.edu.in

(Approved by AICTE & DTE, New Delhi (N.A.A.C. Affiliated) Affiliated to R.T.M. Nagpur University Nagpur)

**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 describe in this thesis entitled "**Synthesis, Characterization and Pharmacological Studies of Novel N-1 Substituted Indole Derivatives**" submitted in partial fulfillment of requirement for degree of Master of Pharmacy in Pharmaceutical chemistry, in the faculty of Science of Technology, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. The work is original as far as my knowledge concerned and not imitated from anywhere. This work is carried out in laboratories of Priyadarshini J.L. College of Pharmacy, Nagpur by **Shubhangi M.Raut** under the guidance of **Dr. Dinesh P. Kawade** Associate Professor, Department of Pharmaceutical Chemistry at Priyadarshini J.L. College of Pharmacy, Nagpur.

This thesis is now ready for examination.

Place: Nagpur

Date: 14/7/22

**Dr. D. R. Chaple**

(Principal)

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

**Molecular Modelling Steered Design, Synthesis,  
Characterization and QSAR Analysis of Novel  
Thiadiazole Derivatives for Cardiovascular Disorder**

**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

**Shivani M. Deshmukh**

**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

2021-2022



LOKMANYA TILAK JANKAR YAN SHIKSHAN SANSTHA'S  
**PRIYADARSHINI J. L. COLLEGE OF PHARMACY**

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

Electronics Zone Building, MIDC, Hingna Road, Nagpur-480004 (M.S.)

Tel. & Fax No. +91-799-29510, Email: jhey\_snp@rediffmail.com, Website: www.jlcp.edu.in  
(Approved by AICTE & D.D., New Delhi, NAAC, Accredited to B.T.M. Nagpur University, Nagpur)

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

### CERTIFICATE

This is to certify that the work investigation described in this thesis, entitled "Molecular modelling steered design, synthesis, characterization and QSAR analysis of novel thiazazole derivatives for cardiovascular disorder" 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 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 **Miss. Shivani M. Deshmukh** under guidance of **Dr. D. R. Chaple, Principal & Professor, Priyadarshini J. L. College of Pharmacy, Nagpur**.

This thesis is now ready for examination.

Place: Nagpur

Date: 19/07/2022

**Dr. D. R. Chaple**

(Principal)

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

**Development and Validation of Stability Indicating Analytical  
Methods for Metformin Hydrochloride, Glimepiride and  
Atorvastatin Calcium in Bulk and Combined Dosage Form**

**THESIS**

Submitted in partial fulfilment of the requirement for Degree of

**MASTER OF PHARMACY**

**IN**

**PHARMACEUTICAL CHEMISTRY**

**In the faculty of Science and Technology**

**Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur**

**By**

**Miss. Nilima G. Sakharkar**

**B. Pharm.**

**Research Guide**

**Dr. (Mrs.) Alpana J. Asnani**

**M. Pharm., Ph.D.**





LOKMANYA TILAK JANKALYAN SHIKSHAN SANSTHA'S  
**PRIYADARSHINI J. L. COLLEGE OF PHARMACY**

(Formerly called: J. L. Chatevedi College of Pharmacy)

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

Tel. & Fax No. +91-7104-299131, E-mail: [jiop\\_jagprised@rediffmail.com](mailto:jiop_jagprised@rediffmail.com) Website: [www.jlpc.edu.in](http://www.jlpc.edu.in)

(Approved by AICTE & PCI), New Delhi (Distt. A.B.R.) Affiliated to R. T. M. Nagpur University Nagpur

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

**CERTIFICATE**

This is to certify that the work investigations described in this thesis, entitled "Development and Validation of Stability Indicating Analytical Methods for Metformin Hydrochloride, Glimepiride and Atorvastatin Calcium in Bulk and Combined Dosage Form" 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 the **Priyadarshini J. L. College of Pharmacy, Nagpur**, by **Ms. Nilima G. Sakharkar** under guidance of **Dr. (Mrs.) Alpna 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: 14/07/2022

**Dr. D. R. Chaple**

(Principal)

**PRINCIPAL**

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

**DEVELOPMENT OF CO-CRYSTALS FOR SOLUBILITY  
ENHANCEMENT OF POORLY WATER SOLUBLE DRUG**

**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 Maharaj  
Nagpur University, Nagpur*

**Submitted By**

**Dumini F. Khedekar**  
(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**

**2021-2022**



**PRİYADARSHINI J. L. COLLEGE OF PHARMACY**

**Electronic Zone Building, MIDC, Hinna Road, Nagpur- 440016**

**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 OF CO-CRYSTALS FOR SOLUBILITY ENHANCEMENT OF POORLY WATER SOLUBLE DRUG”** 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 **Damini P. Khedekar**, 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: 19/07/22

**Dr. D. R. Chaple**

(Principal)  
**PRINCIPAL**

Priyadarshini J. L. College of Pharmacy, Nagpur



**FORMULATION AND CHARACTERIZATION OF  
SUNSCREEN EMULGEL BY COMBINATION OF  
HERBAL UV FILTERS**

**A DISSERTATION**

Submitted in partial fulfillment 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**

**Komal Sunil Dangre**

**(B. Pharm)**

**Research Guide**

**Dr. Mrs. Kanchan P. Upadhye**

**(M. Pharm, Ph. D)**





**PRİYADARSHINI J. L. COLLEGE OF PHARMACY**  
Electronic Zone Building, MIDC, Hingna Road, Nagpur- 440016

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 dissertation, entitled "FORMULATION AND CHARACTERIZATION OF SUNSCREEN EMULGEL BY COMBINATION OF HERBAL UV FILTERS" is submitted in the partial fulfilment 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 at Priyadarshini J. L. College of Pharmacy, Nagpur, by **Ms. Komal S. Dangre**, under the guide and supervision of Dr. Mrs. Kanchan P. Upadhye, Priyadarshini J. L. College of Pharmacy, Nagpur. This dissertation is now ready for examination.

Place: Nagpur

Date: 02/08/2022

Dr. D. R. Chaple

(Principal

PRINCIPAL

Priyadarshini J. L. Col  
Pharmacy, Nagpur



LOKMANYA TILAK JANKALYAN SHIKSHAN SANSTHA'S  
**PRIYADARSHINI J.L COLLEGE OF PHARMACY,**  
Electronics Zone Building, MIDC, Hingna Road, Nagpur-440016 (M.S.)

## **Report on field work (B.Pharm and M.Pharm)**

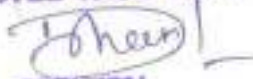
Priyadarshini J. L. College of Pharmacy, Nagpur organised Field Visit at **Pharma Educare, Nagpur** on Date 15<sup>th</sup> October 2022. Mr. S. K. Shah was the faculty members along with 16 M.Pharm Students and 3 faculty members. Mr. Pravin Bisen, Director, PharmaEduacare interacted with students and students were trained that comprises IQ, OQ and PQ tests plus hands-on training on various analytical instruments such as HPLC, UV, Dissolution, Disintegration etc. Additionally, experts from R&D also took a session on the application of all analytical instruments in the pharmaceutical industry.

### **Objective:**

To give exposure to Industrial Techniques, Learning Problems Identification and mitigation

### **Benefits in terms of learning/Skills/Knowledge obtained?**

The visits provide the students with an opportunity to learn practically through interaction, working methods and good manufacturing practices.

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



ATTESTED TRUE COPY  
*Shantanu*  
PRINCIPAL  
Priyadarshini's College of  
Pharmacy, Nagpur.



Students at Pharma educare



LOKMANYA TILAK JANKALYAN SHIKSHAN SANSTHA'S  
**PRIYADARSHINI J.L COLLEGE OF PHARMACY,**  
Electronics Zone Building, MIDC, Hingna Road, Nagpur-440016 (M.S.)

## Report on field work (M.Pharm)

The Pharmaceutics department organized an industrial visit to Dipti pharmaceuticals , MIDC,wadi for the students of M.Pharm Pharmaceutics . 20 students along with the staff members of Pharmaceutics department visited the company. Students got to interact with the personnels working there and also were able to observe liquid manufacturing and packaging processes. They got acquainted with various microbiological testing procedures as well. The HOD of the Pharmaceutics department thanked Dr.Jinturkar sir and Mr,Nikhil Jinturkar ,Proprietor of Dipti Pharmaceuticals for allowing to arrange the visit.



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

