# INSTITUTE OF PHARMACY MET Bhujbal Knowledge City

## NAAC CRITERIA 01: Curricular Aspects

Field Projects taken during the year

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This is to certify that the research work presented in this dissertation entitled, **"Formulation, Development and Evaluation of Orodispersible Tablet of Terbutaline Sulphate by Phase Transition Method"** submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Pharmaceutics), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, **MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Mr. Rohan Rameshwar Bhutada**, under the guidance and supervision of **Dr.Moreshwar P. Patil**. This dissertation is now ready for examination.

Place: Nashik

Date 7/6/22



S. J. Kshirsagar

Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003



This is to certify that the research work presented in this dissertation entitled, "Formulation, Development and Evaluation of Orodispersible Tablet of Terbutaline Sulphate by Phase Transition Method" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Pharmaceutics), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Mr. Rohan Rameshwar Bhutada, under my guidance and supervision.

This dissertation is now ready for examination.

Place: Nashik

Date: 7/6/2022

Name of Guide

Dr. Moreshwar P. Patil, Department of pharmaceutics Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003

l hereby declare that the dissertation entitled "Formulation, Development and Evaluation of Orodispersible Tablet of Terbutaline Sulphate by Phase Transition Method" is based on the work carried out by me in the laboratorics of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003 under the guidance and supervision of Dr. Moreshwar P. Patil.

Pohutado

Name of student

Place: Nashik

Date: 07-66-2022

Mr. Rohan Rameshwar Bhutada



This is to certify that the research work presented in this dissertation entitled, "Formulation and Evaluation of Topical Microemulsion Based Anti-Aging Crem" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Pharin'accur(c)) in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Mr. Vardhaman Ashok Murkunde, under the guidance and supervision of Dr. Moreshwar P. Patil.

This dissertation is now ready for examination.



Place: Nashik

Date: 7/6/22-

Dr. S. J. Kshirsagar Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003



This is to certify that the research work presented in this dissertation entitled, "Formulation and Evaluation of Topical Microemulsion Based Anti-Aging Crem" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Pharmaceutics) in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Mr. Vardhaman Ashok Murkunde, under my guidance and supervision.

This dissertation is now ready for examination.

Dr. Moreshwar P. Patil

Guide,

Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003

Place: Nashik

Date: 08/06/2022

I hereby declare that the dissertation entitled "Formulation and Evaluation of Topical Microemulsion Based Anti-Aging Crem" is based on the work carried out by me in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003 under the guidance and supervision of Dr. Moreshwar P. Patil.

Place: Nashik

Mr. Vardhaman Ashok Murkunde

Date: 08/06/22



This is to certify that the research work presented in this dissertation entitled, "FORMULATION DEVELOPMENT AND EVALUATION OF HESPERIDIN LOADED SOLID LIPID NANOPARTICLES" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy(Pharmaceutics) in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Mr. Sachin Chandrashekhar Joshi, under the guidance and supervision of Dr. M. P. Patil.

This dissertation is now ready for examination.

Place: Nashik

Date

ADGAON NASIK-3

Dr. S. J. Kshirsagar Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003



This is to certify that the research work presented in this dissertation entitled, "FORMULATION DEVELOPMENT AND EVALUATION OF HESPERIDIN LOADED SOLID LIPID NANOPARTICLES" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Pharmaceutics) in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, Mr. Sachin Chandrashekhar Joshi, under my guidance and supervision.

This dissertation is now ready for examination.

Dr. M. P. Patil

Guide,

Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003

Place: Nashik

Date: 08/06/2022

I hereby declare that the dissertation entitled FORMULATION DEVELOPMENT AND EVALUATION OF HESPERIDIN LOADED SOLID LIPID

NANOPARTICLES" is based on the work carried out by me in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003 under the guidance and supervision of Dr. M. P. Patil.

Mr. Sachin Chandrashekhar Joshi

Place: Nashik

Date: 08-06-2022.



This is to certify that the research work presented in this dissertation entitled, "FORMULATION AND EVALUATION OFCHRYSIN LOADED SOLID LIPID NANOPARTICLES" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Pharmaceutics)n the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Mrs. Pallavi Rajendra Khairnar, under the guidance and supervision of Dr. M.P. Patil.

This dissertation is now ready for examination.



Dr. S. J. Kshirsagar Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003



This is to certify that the research work presented in this dissertation entitled,

**"FORMULATION AND EVALUATION OFCHRYSIN LOADED** 

SOLID LIPID NANOPARTICLES" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Pharmaceutics)n the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Mrs. Pallavi Rajendra Khairnar, under my guidance and supervision.

This dissertation is now ready for examination.

Name of Guide

Dr. Moreshwar P. Patil.

Bhujbal Knowledge City

MET's Institute of Pharmacy, Adgaon, Nashik- 422003

ace: Nashik Date: 7/6/2022

I hereby declare that the dissertation entitled "FORMULATION AND EVALUATION OF CHRYSIN LOADED SOLID LIPID NANOPARTICLES" is based on the work carried out by me in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003 under the guidance and supervision of Dr. M.P. Patil.

Place: Nashik

Khee Name of student

Date:07/06/2022

Mrs. Pallavi Rajendra Khairnar

#### **BHUJBAL KNOWLEDGE CITY**



**MET's INSTITUTE OF PHARMACY** 

ADGAON, NASHIK-422003

2020-2022

#### CERTIFICATE

This is to certify that the research work presented in this dissertation entitled, "Formulation and Evaluation of Edible SLS Free Pro-Biotic Herbal Tooth gel for Treatment of Periodontitis" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Pharmaceutics), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Ms. Roshani Giridhar Bhadane, under the guidance and supervision of Dr. Nilima A. Thombre.

This dissertation is now ready for examination.

Place: Nashik

Date 11/6/22

J. Kshirsagar Principal

Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003



This is to certify that the research work presented in this dissertation entitled, "Formulation and Evaluation of Edible SLS Free Pro-Biotic Herbal Tooth gel for Treatment of Periodontitis " submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Pharmaceutics), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Ms. Roshani Giridhar Bhadane, under my guidance and supervision.

This dissertation is now ready for examination.

Alton

Dr. Nilima A. Thombre

Guide,

Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003

Place: Nashik

Date: 11 106 2022

R. Jachar. Evaluated by.



This is to certify that the research work presented in this dissertation entitled, "Formulation Development and Evaluation of Resveratrol Nanostructured Lipid Carrier System Loaded Gel" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy(Pharmäceutics) in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Miss. Pooja Shankar Niphade, under the guidance and supervision of Dr. Nilima A. Thombre.

This dissertation is now ready for examination.

Place: Nashik





N Dr. S. J. Kshirsagar

Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003



This is to certify that the research work presented in this dissertation entitled, "Formulation Development and Evaluation of Resveratrol Nanostructured Lipid Carrier System Loaded Gel" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Pharmaceutics) in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Miss. Pooja Shankar Niphade, under my guidance and supervision.

This dissertation is now ready for examination.

Jann

Place: Nashik

Evaluated 21

Dr. Nilima A. Thombre Guide, Bhujbal Knowledge City MET's Institute of Pharmacy,

Adgaon, Nashik- 422003

Date: 08/06/2022



This is to certify that the research work presented in this dissertation entitled. "Formulation, Development and Evaluation of SLS Free-Probiotic Loaded Herbal Toothpaste for Treatment of Periodontitis" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Pharmaceutics), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Mr. Amit Vitthal Kakad, under the guidance and supervision of Dr. Sanjay J. Kshirsagar. This dissertation is now ready for examination.

Place: Nashik

Date 9/6/22

Dr. S. J. Kshirsagar Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003



This is to certify that the research work presented in this dissertation entitled, "Formulation, Development and Evaluation of SLS Free Probiotic Loaded Herbal Toothpaste for Treatment of Periodontitis" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Pharmaceutics), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Mr. Amit Vitthal Kakad, under my guidance and supervision.

This dissertation is now ready for examination.

Place: Nashik

Date: 9622

Dr. S. shirsagar Guide

Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003

I hereby declare that the dissertation entitled "Formulation, Development and Evaluation of SLS Free Probiotic Loaded Herbal Toothpaste for Treatment of Periodontitis" is based on the work carried out by me in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003 under the guidance and supervision of Dr. Sanjay J. Kshirsagar.

Hala

Amit Vitthal Kakad

Place: Nashik

Date: 09 06 2022



This is to certify that the research work presented in this dissertation entitled, "Development and evaluations of curcumin loaded PLGA nanoparticles to treat diabetic retinopathy" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy Pharmaceutics, in the Faculty of Science and Technology, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2020-2022 by MS. Layba Sajjad Ali Sayyad, under the guidance and supervision of Dr. Sanjay J. Kshirsagar. This dissertation is now ready for examination.

Dr. S. J. Kshirsagar

Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422 003

Place: Nashik Date: 766/22-



This is to certify that the research work presented in this dissertation entitled, "Development and evaluations of curcumin loaded PLGA nanoparticles for non-invasive treatment of diabetic retinopathy" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Pharmaceutics), in the Faculty of Science and Technology, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2020-2022 by Ms. Layba Sajjadali Sayyad, under the guidance and supervision of Dr. Sanjay J. Kshirsagar. This dissertation is now ready for examination.

Name of the Guide

Dr. Sanjay J. Kshirsagar.

Place: Nashik Date: HG



I hereby declare that the dissertation entitled "Development and evaluations of curcumin loaded PLGA nanoparticles for non-invasive treatment of diabetic retinopathy" is based on the work carried out by me in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2020-2021 under the guidance and supervision of Dr. Sanjay J. Kshirsagar and Dr. Umesh D. Laddha.

Place: Nashik Date: 9<sup>th</sup>June '.22 Name of the student

Layba Sajjad Ali Sayyad



This is to certify that the research work presented in this dissertation entitled, "Formulation And Evaluations of Novel Orally Disintegrating Tablet of Domperidone" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Pharmaceutics), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Mathematical Sciences and supervision of Dr. Sanjay J. Ashirsagar.

This dissertation is now ready for examination.



Place: Nashik

Date 38 2.2

Dr. S. J. Kshirsagar Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003

1



This is to certify that the research work presented in this dissertation entitled, "Formulation And Evaluations of Novel Orally Disintegrating Tablet of Domperidone" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Pharmaceutics), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Mr. Mahesh Appasaheb Funde, under my guidance and supervision.

This dissertation is now ready for examination.

Place: Nashik

Date: 13/6/22



Dr. Sanjay J. Kshirsagar

Guide,

Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003

Evaluated B. Mung 13/6/2022

l hereby declare that the dissertation entitled "Formulation And Evaluations of Novel Orally Disintegrating Tablet of Domperidone" is based on the work carried out by me in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003 under the guidance and supervision of Dr. Sanjay J. Kshirsagar.

dealthe

Mr. Mahesh Appasaheb Funde

Place: Nashik

Date: 13-06-2022

## ADGAON, NASHIK-422003



## CERTIFICATE

This is to certify that the research work presented in this dissertation entitled, "Design and Development of Curcumin Loaded Solid Lipid Nanoparticles for Colon Targeted Drug Delivery" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Pharmaceutics), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by, Miss. Tejaswini Ratanrao Padole under the guidance and supervision of Dr. Sanjay J. Kshirsagar.

This dissertation is now ready for examination.

Dr. S.J. Kshirsagar Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003

Place: Nashik

Date 11/6/22



This is to certify that the research work presented in this dissertation entitled, "Design and Development of Curcumin Loaded Solid Lipid Nanoparticles for Colon Targeted Drug Delivery" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Pharmaceutics), in the Faculty of Pharmaceutical Sciences, Savin ibai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by, Miss. Tejaswini Ratanrao Padole under my guidance and supervision.

This dissertation is now ready for examination.

( Affeller

Dr. Sanjay J. Kshirsagar

Guide,

Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003

Place: Nashik

Date: 11 6 22

Evaluated By Boliney 13/6/22

I hereby declare that the dissertation entitled "Design and Development of Curcumin Loaded Solid Lipid Nanoparticles for Colon Targeted Drug Delivery" is based on the work carried out by me in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003 under the guidance and supervision of Dr. Sanjay J. Kshirsagar.

1000

Miss. Tejaswini Ratanrao Padole

Place: Nashik

Date: 11/06/2022



This is to certify that the research work presented in this dissertation entitled, "Formulation and Characterization of Olmesartan Medoxomil Nanocrystals for Solubility Enhancement." submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Pharmaceutics) in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Ms. Rupali Nitin Kanade, under the guidance and supervision of Dr. Sapana. P. Ahirrao.

This dissertation is now ready for examination.

Place: Nashik Date 7 | c | 22

Dr. S. J. Kshirsagar Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003



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This dissertation is now ready for examination.

Place: Nashik

Date: 06 06 2022

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Zniwad

Name of Guide

Dr. Sapana. P. Ahirrao, Department of Pharmaceutics Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003



This is to certify that the research work presented in this dissertation entitled," Solubility enhancement of etodolac drug by co-crystal engineering using suitable co-former" submitted in the partial fulfillment of the requirement for the degree of master of pharmacy (Pharmaceutics), in the Faculty of Science and Technology, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2020-2022 by Mr. Dinesh Kailas Kuber under the guidance and supervision of Dr. Sapana Ahirrao This dissertation is now ready for examination.

Place: Nashik DGAON Date:

Dr. S. J. Kshirsagar

Principal

Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003



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This dissertation is now ready for examination.

Place: Nashik

Date: 07 06 2022

SANIWad

Dr. Sapana Ahirrao

**Research Guide** 

Bhujbal Knowledge City MET's Institute of pharmacy, Adgaon, Nashik-422003

wy we



This is to certify that the research work presented in this dissertation entitled, **"Formulation and Development of Danazol Vaginal Suppositories in Treatment of Uterine Disorder Endometriosis"** submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy(Pharmaceutics), in faculty of Pharmaceutical Sciences, Savitribai Phule Pune University ,Pune was carried out in the laboratories of **Bhujbal Knowledge City**, **MET's Institute of Pharmacy**, **Adgaon ,Nashik -422003**, by **Mr. Piyushgir Sanjaygir Gosavi**, under the guidance and supervision of (**Dr. S. P. Ahirrao**).

This dissertation is now ready for examination.

**Place : Nashik** 

Date: 7/6/22



Dr. Sanjay Kshirsagar Principal

Bhujbal Knowledge City MET's Institute of Pharmacy Adgaon ,Nashik-422003



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This dissertation is now ready for examination.

Sprinas

Dr. S. P. Ahirrao Guide

Date: 07/06/2022

Place : Nashik

Etuneded Officerre ( M. Course)

Scanned with CamScanner



This is to certify that the research work presented in this dissertation entitled, **"Formulation and Evaluation of Thermoreversible** *In- Situ* Gel for Nose to **Brain Delivery of Antiretroviral Drug for treatment of NeuroAIDS**" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Pharmaceutics), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, **MET's Institute of Pharmacy, Adgaon, Nashik-422003**, by **Mr. Rushikesh B. Shinde**, under the guidance and supervision of **Dr. Smita P. Kakad**. This dissertation is now ready for examination.

Dr. S. J. Kshirsagar

Place: Nashik

Date 11-06-2022

Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003



This is to certify that the research work presented in this dissertation entitled, "To Develop And Optimize PLGA Loaded Nanoparticles Of Antiretroviral Drug For Nose to Brain Delivery" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Pharmaceutics), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Mr. Milind Chhabu Shewale, under the guidance and supervision of Dr. Smita Prakash Kakad.

Place: Nashik Date 11/06/2022

N

Dr. S. J. Kshirsagar Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003



This is to certify that the research work presented in this dissertation entitled, **"Formulation, Development and Evaluation of Folding Mucoadhesive Patch Containing Propranolol Hydrochloride"** submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Pharmaceutics), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Mr. Rajat Pradumna Vishwakarma, under the guidance and supervision of Dr. D. S. Bhambere. This dissertation is now ready for examination.

Place: Nashik

Date:08/06/2022



Dr. S. J. Kshirsagar

Principal

Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003



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This dissertation is now ready for examination.

Dr. Deepak S. Bhambere Guide,

Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003

Place: Nashik

Date: 08/06/2022 wed



This is to certify that the research work presented in this dissertation entitled, **"FORMULATION AND OPTIMIZATION OF LOPINAVIR LOADED PLGA NANOPARTICLES**" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Quality Assurance Techniques), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of **Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003**, by **Ms. Vaishali Ganesh Mundhe**, under the guidance and supervision of **Dr. Smita P. Kakad**.

This dissertation is now ready for examination.

Place: Nashik

Date 10/06/2022

Dr. S. J. Kshirsagar Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003



This is to certify that the research work presented in this dissertation entitled, "FORMULATION AND OPTIMIZATION OF LOPINAVIR LOADED PLGA NANOPARTICLES " submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Quality Assurance Techniques), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Ms. Vaishali Ganesh Mundhe, under my guidance and supervision.

This dissertation is now ready for examination.

Place: Nashik

Date: 10/06/2022

Dr. Smita P. Kakad

Guide,

Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003

.R. Touther "

# ACCELERATED AND REAL TIME STABILITY DATA GENERATION OF SOME AYURVEDIC PRODUCTS

# **A Dissertation Submitted**

То

Savitribai Phule Pune University, Pune

In Partial Fulfillment of Requirements for the Award of

**Degree** of

#### MASTER OF PHARMACY

IN

QUALITY ASSURANCE TECHNIQUES

In Faculty of Science and Technology

BY

Mr. RAHUL SHARAD GAYAKE

GUIDE Dr. GITANJALI S. DEOKAR



BHUJBAL KNOWLEDGE CITY MET's INSTITUTE OF PHARMACY ADGAON, NASHIK-422 003 2020-2022



This is to certify that the research work presented in this dissertation entitled, "Accelerated and Real Time Stability Data Generation of Some Ayurvedic Products" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Quality Assurance Techniques), in the Faculty of Science and Technology, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2020-2022 by Mr. Rahul Sharad Gayake, under the guidance and supervision of Dr.Gitanjali S. Deokar. This dissertation is now ready for examination.

Dr. S. J. Kshirsagar

Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422 003

Place: Nashik Date: 13/06/2022



This is to certify that the research work presented in this dissertation entitled, "Accelerated and Real Time Stability Data Generation of Some Ayurvedic Products" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Quality Assurance Techniques), in the Faculty of Science and Technology, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2020-2022 by Mr. Rahul Sharad Gayake, under the guidance and supervision of Dr.Gitanjali S. Deokar. This dissertation is now ready for examination.

Place: Nashik

Date: 13/06/2022

Name of the Guide

Guide Dr.Gitanjali S. Deokar Head,Department of Quality Assurance Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422 003.

Evaluated By, Tolungh 13/6/2022 (Wagh B.P.)



#### DECLARATION

I hereby declare that the dissertation entitled "Accelerated and Real Time Stability Data Generation of Some Ayurvedic Products" is based on the work carried out by me in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2020-2021 under the guidance and supervision of Dr.Gitanjali S. Deokar.

Mr. Rahul Sharad Gayake

Place: Nashik Date: 13/06/2022

# "INVESTIGATIONS ON PREBIOTIC POTENTIALS OF VEGETABLE AND AGRICULTURE WASTE MATERIAL"

A Dissertation Submitted To

Savitribai Phule Pune university, Pune

In partial Fulfillment of Requirements for the Award of

**Degree of** 

#### **MASTER OF PHARMACY**

IN

QUALITY ASSUREANCE TECHNIQUES IN FACULTY OF SCIENCE AND TECHNOLOGY

BY

Mr. KRUSHNA LAXMANRAO JADHAV

GUIDE

**Dr. GITANJALI S. DEOKAR** 



BHUJBAL KNOWLEDGE CITY MET's INSTITUTE OF PHARMACY ADGAON, NASHIK-422003, 2020-2022



This is to certify that the research work presented in this dissertation entitled, "Investigations on Prebiotic Potentials of Vegetable and Agriculture Waste Material" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Quality Assurance Techniques), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Mr. Krushna Laxmanrao Jadhav, under the guidance and supervision of Dr. Gitanjali S. Deokar.

This dissertation is now ready for examination.

Place: Nashik

Date 13/06/22

Dr. S. J. Kshirsagar Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003



This is to certify that the research work presented in this dissertation entitled, "Investigations on Prebiotic Potentials of Vegetable and Agriculture Waste Material" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Quality Assurance Techniques), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Mr. Krushna Laxmanrao Jadhav, under my guidance and supervision.

This dissertation is now ready for examination.

Jan

Dr. Gitanjali S. Deokar

Guide,

Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003

Place: Nashik

Date: 13/06/22

# DECLARATION

I hereby declare that the dissertation entitled "Investigations on Prebiotic Potentials of Vegetable and Agriculture Waste Material" is based on the work carried out by me in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003 under the guidance and supervision of Dr. Gitanjali S. Deokar.

Krushna Laxmanrao Jadhav

Place: Nashik

Date: 13106/22

Design, Development, and Evaluation of Feed Formulations Using Vegetable and Agricultural Waste Materials A Dissertation Submitted To

Savitribai Phule Pune University, Pune

In Partial Fulfillment of Requirements for the Award of

**Degree of** 

**MASTER OF PHARMACY** 

IN

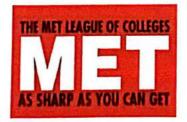
**Quality Assurance Techniques** 

In Faculty of Science and Technology

BY

Ms. Vaibhavi P. Mali

Guide Dr. Gitanjali S. Deokar



BHUJBAL KNOWLEDGE CITY MET's INSTITUTE OF PHARMACY ADGAON, NASHIK-422 003 2020-2022



This is to certify that the research work presented in this dissertation entitled, "Design, Development, and Evaluation of Feed Formulations Using Vegetable and Agricultural Waste Materials" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Quality assurance techniques), in the Faculty of Science and Technology, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 by Ms. Vaibhavi Premraj Mali, under the guidance and supervision of Dr. Gitanjali S. Deokar

This dissertation is now ready for examination.

Place: Nashik Date: 18/06/2022.

Dr. S. J. Kshirsagar

Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422 003



This is to certify that the research work presented in this dissertation entitled, "Design, Development, and Evaluation of Feed Formulations Using Vegetable and Agricultural Waste Materials" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Quality assurance technique), in the Faculty of Science and Technology, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2020-2021 by Ms. Vaibhavi Premraj Mali, under the guidance and supervision of Dr. Gitanjali S. Deokar.

This dissertation is now ready for examination.

Place: Nashik Date: 13/06/2022

Dr. Gitanjali Deokar

Evaluaded by Blunch 13/6/2022 (Wayh B.P)

# DECLARATION



I hereby declare that the dissertation entitled "Design, Development, and Evaluation of Feed Formulations Using Vegetable and Agricultural Waste Materials" is based on the work carried out by me in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 under the guidance and supervision of Dr. Gitanjali S. Deokar

hau Valbhavi Premraj Mali

Place: Nashik Date: 13/06/2022.

# "INVESTIGATION ON *ELEUSINE CORACANA* RAGI SEEDS PECTIN AND STARCH AS A TABLE EXCIPIENTS"

A Dissertation Submitted To

Savitribai Phule Pune University, Pune

In Partial Fulfillment of Requirements for the Award of

**Degree of** 

#### MASTER OF PHARMACY

IN

QUALITY ASSURANCE TECHNIQUES

In Faculty of Science and Technology

BY

Ms. SHAISTA SHAREEF PINJARI

Guide

Dr. GITANJALI S. DEOKAR



BHUJBAL KNOWLEDGE CITY MET's INSTITUTE OF PHARMACY ADGAON, NASHIK-422003 2020-2022



This is to certify that the research work presented in this dissertation entitled, "Investigation on *Eleusine coracana*\_Ragi Seeds Pectin and Starch as a Tablet Excipients". submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Quality Assurance Techniques), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Ms. Shaista Shareef Pinjari, under the guidance and supervision of Dr. Gitanjali S. Deokar.

This dissertation is now ready for examination.

Place: Nashik

Date 13/05/22-

Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003

Dr.S. J. Kshirsagar



This is to certify that the research work presented in this dissertation entitled, "Investigation On *Eleusine coracana*\_Ragi Seeds Pectin And Starch as a Tablet Excipients." submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Quality Assurance Techniques), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Ms. Shaista Shareef Pinjari, under my guidance and supervision.

This dissertation is now ready for examination.

Place: Nashik

Date: 13/06/22

Dr. Gitanjali S. Deokar

Head, Department of Quality Assurance

Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003

# DECLARATION

I hereby declare that the dissertation entitled "Investigation On *Eleusine coracana* Ragi Seeds Pectin And Starch As A Tablet Excipients" is based on the work carried out by me in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003 under the guidance and supervision of Dr. Gitanjali S. Deokar.

sheista

Ms. Pinjari Shaista Shareef

Place: Nashik

Date: 13/06/22\_



This is to certify that the research work presented in this dissertation entitled, **"Formulation Development And Evaluation Of Mebendazole Tablet By QbD Approach** " submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Quality Assurance Techniques), in the Faculty of Science and Technology, Savitribai Phule Pune University, Pune was carried out in the laboratories of **MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003** during the academic year 2020-2022 by **Ms. Karishma Subhash Sandhyanshe**, under the guidance and supervision of (**Dr. Nilima A. Thombre**). This dissertation is now ready for examination.

Place: Nashik Date: 11<sup>th</sup> June 2022

Dr. S. J. Kshirsagar

Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422 003



This is to certify that the research work presented in this dissertation entitled, "Formulation Development And Evaluation Of Mebendazole Tablet By QbD Approach " submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Quality Assurance Techniques), in the Faculty of Science and Technology, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2020-2022 by Ms. Karishma Subhash Sandhyanshe, under the guidance and supervision of (Dr. Nilima A. Thombre). This dissertation is now ready for examination.

Place: Nashik Date: 11<sup>th</sup> June 2022

Name of the Guide

Guide Dr. Nilima A. Thombre Department of Pharmaceutics MET Institute of Pharmacy, Adgaon, Nashik-422003.

·R. Jaelher. valuated by



This is to certify that the research work presented in this dissertation entitled, "Formulation development and evaluation of metoprolol succinate extendedrelease tablets resistant to alcohol induced dose dumping" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Quality Assurance Technique), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2020-2021 by Mr. Huzefa Ahmed Bashiruddin Shaikh, under the guidance and supervision of Dr. Nilima A. Thombre This dissertation is now ready for examination.

Dr. S. J. Kshirsagar

**Principal** Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422 003

Place: Nashik

Date: 11/06/2022

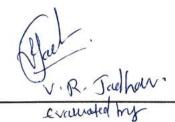


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This dissertation is now ready for examination.

Athenn

Place: Nashik Date: 11/06/2022



Dr. Nilima A. Thombre Guide Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422 003



This is to certify that the research work presented in this dissertation entitled, "Formulation, development and characterisation of PLGA-Luliconazole nanoparticles loaded gel system for topical fungal treatment" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Quality Assurance Techniques), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Ms. Mrunal Tanaji Pekhale, under the guidance and supervision of Dr. Santosh S. Chhajed.

This dissertation is now ready for examination.

Place: Nashik

Date 9/06/2022



Dr. S. J. Kshirsagar Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003



This is to certify that the research work presented in this dissertation entitled. "Formulation, development and characterisation of PLGA-Luliconazole nanoparticles loaded gel system for topical fungal treatment" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Quality Assurance Techniques), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Ms. Mrunal Tanaji Pekhale, under my guidance and supervision. This dissertation is now ready for examination.

Place: Nashik

Date: 9/06/2022



Dr. Santosh S. Chhajed

Guide,

Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003



This is to certify that the research work presented in this dissertation entitled, "\_Development and validation of stability indicating HPLC method for estimation of Lopinavir in bulk and tablet formulation" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Quality Assurance Techniques), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik-422003, by Ms.Pooja Raju Shinde under the guidance and supervision of Dr.Sandeep S.Sonawane. This dissertation is now ready for examination.



Place: Nashik

Date 13 06 22

Dr. S. J. Kshirsagar

Dr. S. J. Kshirsagar Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003



This is to certify that the research work presented in this dissertation entitled, "Development and validation of stability indicating HPLC method for estimation of Lopinavir in bulk and tablet formulation" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Quality Assurance Techniques), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Ms.Pooja Raju Shinde, under my guidance and supervision Dr. Sandeep S.Sonawane.

This dissertation is now ready for examination.

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NASIK

Place: Nashik Date: 13/06/22

nawara

Dr. Sandeep S. Sonawane

Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003





This is to certify that the research work presented in this dissertation entitled, "Development and validation of stability indicating HPLC method for estimation of Sofosbuvir in bulk and tablets" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Quality Assurance Techniques), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Mr. Mr.Diptanshu Sandip Kasar, under my guidance and supervision.

This dissertation is now ready for examination.

6/6.202

world

Dr. Sandeep S. Sonawane

Research Guide,

Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003

Place: Nashik

Date: 13/06/2022

ADGAON NASIK



This is to certify that the research work presented in this dissertation entitled, "Development and validation of stability indicating HPLC method for estimation of Sofosbuvir in bulk and tablets" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy, (Quality Assurance Techniques), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Mr. Diptanshu Sandip Kasar, under the guidance and supervision of Dr, Sandeep S. Sonawane. This dissertation is now ready for examination.

Place: Nashik

Date 13/06/2022



Dr. S. J. Kshirsagar Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003



This is to certify that the research work presented in this dissertation entitled, "Development, Validation and Comparative study of Chlorthalidone between Generic dosage form and Branded dosage form" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Quality Assurance Techniques), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Mr /Ms/Mrs. PRIYA MANIK GADAKH, under the guidance and supervision of DR.SANDEEP S. SONAWANE.

This dissertation is now ready for examination.

Place: Nashik

Date 3622



Dr. S. J. Kshirsagar Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003



This is to certify that the research work presented in this dissertation entitled, "Development, Validation and Comparative study of Chlorthalidone between Generic dosage form and Branded dosage form" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Quality Assurance Techniques), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Mr/Ms/Mrs. Priya Manik Gadakh, under my guidance and supervision.

This dissertation is now ready for examination.

Place: Nashik

Date: (3)06/2022



(D/m)

Dr. Sandeep S. Sonawane

Guide,

Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003



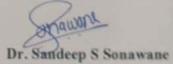
This is to certify that the research work presented in this dissertation entitled, "DEVELOPMENT AND VALIDATION OF STABILITY INDICATING HPLC METHOD FOR ESTIMATION OF DIFLUNISAL IN BULK AND TABLET FORMULATION" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Quality Assurance Techniques), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Ms. <u>Tejaswi Dattaprasad Kandalkar</u>, under my guidance and supervision.

This dissertation is now ready for examination.

Place: Nashik

Date: 13 6 2022





Guide,

Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003



This is to certify that the research work presented in this dissertation entitled, "DEVELOPMENT AND VALIDATION OF STABILITY INDICATING HPLC METHOD FOR ESTIMATION OF DIFLUNISAL IN BULK AND TABLET FORMULATION" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Quality Assurance Techniques), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by <u>Ms. Tejaswi Dattaprasad Kandalkar</u>, under the guidance and supervision of Dr. Sandeep S Sonawane.

This dissertation is now ready for examination.

Place: Nashik

Date: 13/6/2022



Dr. S. J. Kshirsagar Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik - 422003



This is to certify that the research work presented in this dissertation entitled, "Standardization of Marketed Formulation and Quantitative Estimation of Active Biomarker from Herbal Formulation by RP-HPLC Method" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Quality Assurance Techniques), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, during the academic year 2021-2022, by Ms. Rashmi Ramesh Pawar, under guidance and supervision of Dr. Sunita Narendra Surse.

This dissertation is now ready for examination.

Place: Nashik

Date: 14 06 2022

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Dr. Sunita Narendra Surse

Research Guide, Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003



This is to certify that the research work presented in this dissertation entitled, "Standardization of Marketed Formulation and Quantitative Estimation of Active Biomarker From Herbal Formulation by RP-HPLC Method" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Quality Assurance Techniques), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Ms. Rashmi Ramesh Pawar, under the guidance and supervision of Dr. Sunita Narendra Surse.

This dissertation is now ready for examination.

Dr. S. J. Kshirsagar Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003

Place: Nashik

13 6/22 Date



This is to certify that the research work presented in this dissertation entitled, "Isolation, Standardization, Quantification of active bio-marker Barbaloin from herbal marketed formulation by RP-HPLC method" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Quality Assurance Techniques), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, during the academic year 2021-2022, by Miss. Srushti Jagdish Nirmal; under guidance and supervision of Dr. Sunita Narendra Surse. This dissertation is now ready for examination.

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Place: Nashik

Date: 16th June 2022

Mupe

Dr. Sunita Narendra Surse Research Guide, Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003



This is to certify that the research work presented in this dissertation entitled, "Isolation, Standardization, Quantification of active bio-marker Barbaloin from herbal marketed formulation by RP-HPLC method" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Quality Assurance Techniques), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Miss. Srushti Jagdish Nirmal, under the guidance and supervision of Dr. Sunita Narendra Surse. This dissertation is now ready for examination.

Place: Nashik

Date 16 th June 2022

Dr. S. J. Kshirsagar Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003

ADIGAON

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A SUWH?



This is to certify that the research work presented in this dissertation entitled, **"FORMULATION AND OPTIMIZATION OF LOPINAVIR LOADED PLGA NANOPARTICLES**" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Quality Assurance Techniques), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of **Bhujbal Knowledge City**, **MET's Institute of Pharmacy**, **Adgaon, Nashik-422003**, by **Ms. Vaishali Ganesh Mundhe**, under the guidance and supervision of **Dr. Smita P. Kakad**.

This dissertation is now ready for examination.

Place: Nashik

Date 10/06/2022

Aspelle

Dr. S. J. Kshirsagar Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003



This is to certify that the research work presented in this dissertation entitled, "FORMULATION AND OPTIMIZATION OF LOPINAVIR LOADED PLGA NANOPARTICLES " submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Quality Assurance Techniques), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Ms. Vaishali Ganesh Mundhe, under my guidance and supervision.

This dissertation is now ready for examination.

Place: Nashik

Date: 10/06/2022

Dr. Smita P. Kakad

Guide,

Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003

v.R. Taether " Evaluated by



This is to certify that the research work presented in this dissertation entitled, "Synthesis, characterization and pharmacological evaluation of anticancer activity of thiazole derivatives" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Pharmaceutical ), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Ms. Pallavi Bhimrao Tambe, under the guidance and supervision of Dr. Rani Kankate.

This dissertation is now ready for examination.

Place: Nashik

Date 13/06/2022

Dr. S. J. Kshirsagar Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003



This is to certify that the research work presented in this dissertation entitled, "Synthesis, characterization and pharmacological evaluation of anticancer activity of thiazole derivatives" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (specialization), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Ms. Pallavi Bhimrao Tambe, under my guidance and supervision.

This dissertation is now ready for examination.

Mreskund

**DR. RANI KANKATE** 

Guide,

Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003

Place: Nashik

Date: 13/06/2022

DR. Busalc S.E.



This is to certify that the research work presented in this dissertation entitled, "Synthesis, characterization and evaluation of cytotoxic activity of benzotriazole derivatives", submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Pharmaceutical Chemistry), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Miss Pratiksha V. Khade, under my guidance and supervision. This dissertation is now ready for examination.

ykente Dr. Rani S. Kankate

Guide,

Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003

Place: Nashik

Date: 13/06/2022

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This is to certify that the research work presented in this dissertation entitled, "Synthesis, characterization and evaluation of cytotoxic activity of benzotriazole derivatives" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Pharmaceutical Chemistry), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Miss Pratiksha V. Khade, under the guidance and supervision of Dr. Rani S. Kankate. This dissertation is now ready for examination.

Place: Nashik

Date 13 / 06 / 2022

Dr. S. J. Kshirsagar

Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003



This is to certify that the research work presented in this dissertation entitled, "DEVELOPMENT AND VALIDATION OF STABILITY INDICATING HPLC METHOD FOR FAVIPIRAVIR AND IN SILICO ANALYSIS OF ADMET AND PKPD OF SYNTHESIZED IMPURITY." submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (specialization), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Ms. NIKITA RAJENDRA SHAHANE, under the guidance and supervision of DR. SANTOSH S. CHHAJED This dissertation is now ready for examination.



Place: Nashik

Date 9 6 22

Dr. S. J. Kshirsagar

Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003



This is to certify that the research work presented in this dissertation entitled, "DEVELOPMENT AND VALIDATION OF STABILITY INDICATING HPLC METHOD FOR FAVIPIRAVIR AND IN SILICO ANALYSIS OF ADMET AND PKPD OF SYNTHESIZED IMPURITY. " submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (specialization), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Ms. NIKITA RAJENDRA SHAHANE, under my guidance and supervision.

This dissertation is now ready for examination.

Place: Nashik

Date: 9 6 22

# Tur

#### DR. SANTOSH S.CHHAJED

Guide,

Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003



This is to certify that the research work presented in this dissertation entitled, "DESIGN, SYNTHESIS AND MOLECULAR DOCKING SIMULATION OF FEW THIAZOLIDINE-2,4-DIONE ANALOGUES AS ANTI-DIABETIC AGENT" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (specialization), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Ms. BHOSALE PRAGATI UDDHAV, under the guidance and supervision of Dr. Santosh S. Chhajed

This dissertation is now ready for examination.

Place: Nashik

Date 11 6 22

Dr. S. J. Kshirsagar Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003



This is to certify that the research work presented in this dissertation entitled, "DESIGN, SYNTHESIS AND MOLECULAR DOCKING SIMULATION OF FEW THIAZOLIDINE-2,4-DIONE ANALOGUES AS ANTI-DIABETIC AGENT" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (specialization), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Ms. BHOSALE PRAGATI UDDHAV, under my guidance and supervision.

This dissertation is now ready for examination.

10612022 S.K

Place: Nashik

Date: 13 06 2022

ruc **Dr.Santosh S. Chhajed** Bhujbal Knowledge City MET's Institute of Pharmacy,

Adgaon, Nashik- 422003



This is to certify that the research work presented in this dissertation entitled, "To Develope and Validate HPLC Method for Simultaneous Estimation of Ofloxaçin and Glimepiride and its Application There Off" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Pharmaceutical Chemistry), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Ms. Sakshi Rajendra Kapure, under the guidance and supervision of Dr. Santosh S. Chhajed.

This dissertation is now ready for examination.

Place: Nashik



Date: 09-06-2022

Dr. S. J. Kshirsagar Principal Bhujbal Knowledge City

MET's Institute of Pharmacy, Adgaon, Nashik- 422003



This is to certify that the research work presented in this dissertation entitled, "To Develope and Validate HPLC Method for Simultaneous Estimation of Ofloxacin and Glimepiride and its Application There Off" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Pharmaceutical Chemistry), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Ms. Sakshi Rajendra Kapure, under my guidance and supervision.

This dissertation is now ready for examination.

Place: Nashik

Date: 09-06-22

Hummer of 200

Dr. Santosh S. Chhajed

Guide

Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003



This is to certify that the research work presented in this dissertation entitled, "Design, Synthesis And Biological Evaluation Of Pyrazoline Derivatives For Antidepressant Activity " submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Pharmaceutical Chemistry), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Ms. Komal Sanjay Ushir, under the guidance and supervision of Dr Dinesh .D. Rishipathak.

This dissertation is now ready for examination.

Dr. S. J. Kshirsagar Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003

Place: Nashik

Date 11/06/2022



This is to certify that the research work presented in this dissertation entitled, "

Synthesis and pharmacological evaluation for antianxiety activity of few pyrazolyl thiazolinone derivatives" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (specialization), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Miss. Raut Manisha Manohar, under the guidance and supervision of Dr. Dinesh D. Rishipathak.

This dissertation is now ready for examination.

Dr. S. J. Kshirsagar Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003



Place: Nashik

Date |0|6|

DGAON



This is to certify that the research work presented in this dissertation entitled, "Development and validation of stability indicating RP-HPLC method for Ritonavir and its forced degradation" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (specialization), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Ms. Manasvi Sudhir Patil, under the guidance and supervision of Dr. D. D. Rishipathak. This dissertation is now ready for examination.

Dr. S. J. Kshirsagar

Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003

Place: Nashik

Date 09/06/22

This is to certify that the research work presented in this dissertation entitled, "Development And Validation Of Stability Indicating HPLC Method For The Estimation Of Fexofenadine Hydrochloride" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Chemistry), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Mr/Ms/Mrs. Jivan Gopal Patil, under the guidance and supervision of Dr.D.D.Rishipathak.

This dissertation is now ready for examination.

Place: Nashik

AGIL



Dr. S. J. Kshirsagar

Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003



This is to certify that the research work presented in this dissertation entitled, "Development, characterization and evaluation of herbal nano-formulation for Alzheimer's disease" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Pharmacology), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Ms. Prajakta Prakash Darekar, under the guidance and supervision of Dr. N. L. Dashputre. This dissertation is now ready for examination.

1

Place: Nashik

Date |5 |6| 22

Dr. S. J. Ksbirsagar Principal

Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003



This is to certify that the research work presented in this dissertation entitled, "Development, characterization and evaluation of herbal nano-formulation for Alzheimer's disease" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Pharmacology), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Ms. Prajakta Prakash Darekar, under my guidance and supervision of Dr. N. L. Dashputre. This dissertation is now ready for examination.

Place: Nashik

Date: 15 06 2022

Guide

Guide

Dr. N. L. Dashputre

Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003



This is to certify that the research work presented in this dissertation entitled, "fabrication of nano particulate system for oral delivery of selected phytoconstituent against paraquat induced parkinson's disorder" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Pharmacology), in the Faculty of Science and Technology, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2020-2022 by Mr. Tathagat Dhananjay Pagare, under the guidance and supervision of Dr. N. L. Dashputre This dissertation is now ready for examination.

1

Dr. S. J. Kshirsagar

Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422 003

Place: Nashik Date: 15-6-22



This is to certify that the research work presented in this dissertation entitled, "fabrication of nano particulate system for oral delivery of selected phytoconstituent against paraquat induced parkinson's disorder" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (specialization), in the Faculty of Science and Technology, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2020-2022 by Mr. Tathagat Dhananjay Pagare, under the guidance and supervision of Dr. N. L. Dashputre

This dissertation is now ready for examination.

U

Name of the Guide

Dr. N. L. Dashputre Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003

Place: Nashik

Date: 15-6-22



This is to certify that the research work presented in this dissertation entitled, "Ameliorative effect of phytoconstituent in experimentally induced allergic rhinitis model" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Pharmacology), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Ms. Pranali Prakash Deshmukh, under the guidance and supervision of Dr. N. L. Dashputre This dissertation is now ready for examination.

1

Place: Nashik

Date 25/06/22

Dr. S. J. Kshipsagar

Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003



This is to certify that the research work presented in this dissertation entitled, "Ameliorative effect of phytoconstituent in experimentally induced allergic rhinitis model" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Pharmacology), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Ms. Pranali Prakash Deshmukh, under my guidance and supervision of Dr. N. L. Dashputre This dissertation is now ready for examination.

Place: Nashik

Date: 25 06 2022

Dr. N. L. Dashputre

Guide Bhujbal Knowledge City MET's Institute of Pharmacy,

Adgaon, Nashik- 422003



This is to certify that the research work presented in this dissertation entitled, "Assessment of Hepatoprotective and Nephroprotective potential of Nerolidol on rats" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Pharmacology), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, Miss Gayatri Nandkumar Kanade, under the guidance and supervision of Dr. Pavan Udavant.

1

This dissertation is now ready for examination.

Place: Nashik

Date 15/6/22

Dr. S. J. Kshirsagar Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003



This is to certify that the research work presented in this dissertation entitled, "Assessment of Hepatoprotective and Nephroprotective potential of Nerolidol on rats" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Pharmacology), in the Faculty of Pharmaceutical Sciences, Savitribai Phule Pune University, Pune; was carried out in the laboratories of Bhujbal Knowledge City, MET's Institute of Pharmacy, Adgaon, Nashik-422003, by Miss Gayatri Nandkumar Kanade, under my guidance and supervision.

This dissertation is now ready for examination.

Place: Nashik

Guide,

Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422003

Date: 1506/2022



This is to certify that the research work presented in this dissertation entitled, "Assessment of antidiabetic potential of nerolidol on alloxan induced diabetic rats" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Pharmacology), in the Faculty of Science and Technology, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2020-2022 by Mr. Musab Tanzeel Riyaz Ahmed, under the guidance and supervision of Dr. Pavan B. Udavant.

1

This dissertation is now ready for examination.

Place: Nashik

Date: 15/6/22

Dr. S. J. Kshirsagar

Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422 003



This is to certify that the research work presented in this dissertation entitled, "Assessment of antidiabetic potential of nerolidol on alloxan induced diabetic rats" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Pharmacology), in the Faculty of Science and Technology, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2020-2022 by Mr. Musab Tazneel Riyaz Ahmed under the guidance and supervision of Dr. Pavan B. Udavant.

This dissertation is now ready for examination.

Dr. Pavan B. Udavant

Place: Nashik

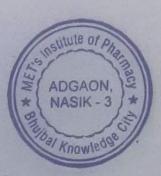
Guide

Date: 15106/2022



This is to certify that the research work presented in this dissertation entitled, " Exploration of nootropic activity of Zingerone and Trimyristin against scopolamine induced amnesia on rat" submitted in the partial fulfillment of the requirement for the degree of Master of Pharmacy (Pharmacology), in the Faculty of Science and Technology, Savitribai Phule Pune University, was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2020-2022 by Miss Chavan Sonali Ramesh, under the guidance and supervision of Dr. Pavan B. Udavant and Prof. R. R. Sable.

This dissertation is now ready for examination.



1

Place: Nashik

Date: 6722

Molle-

Dr. S. J. Kshirsagar

#### Principal

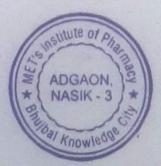
Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422 003



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This dissertation is now ready for examination.

Place: Nashik



Dr. Pavan B. Udavant

Guide

Date: 617/2022



Tel. Nos: (020) 2562 1227/1212/1205 Fax no. : 020 25699232 Ganeshkhind, Pune - 07 Email : pgadmis@pun.unipune.ac.in

#### Ref. No.: PGS/1699

Date :01/10/2022

To, The Principal / Director / Head Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik [CPHN018080]

Sir/Madam

The Ph.D. cases forwarded by your Institute/Centre were placed before the Research & Recognition Committee in Pharmaceutical Chemistry (Science and Technology) held on 19/07/2022. The decision/s of Research & Recognition Committee are as follows :

Sr.No.	Name of the candidate & Name of the Guide	Remarks
1.	Abhijit Sainath Deore Guide : Dr. Chhajed Santosh Subhash	Topic Approved and Admitted w.e.f. 23/04/2022 as follows :-
		Structured Based Design and Synthesis of Substituted Triazines as Anticancer Agents

Please comply with the directions of Reasearch & Recognition Committee and University Communicate to this office at the earliest.

Thanking You,

Yours faithfully,

Sulli

Assistant Registrar (P.G.Admissions)

- Mr./Ms. Abhijit Sainath Deore Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik
- Dr.Chhajed Santosh Subhash Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik



Tel. Nos: (020) 2562 1227/1212/1205 Fax no. : 020 25699232 Ganeshkhind, Pune - 07 Email : pgadmis@pun.unipune.ac.in

#### Ref. No.: PGS/1699

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Sir/Madam

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Sr.No.	Name of the candidate & Name of the Guide	Remarks
1.	Amol Vishwanath Tonde Guide : Dr. Chhajed Santosh Subhash	Topic Approved and Admitted w.e.f. 23/04/2022 as follows :- Enzymatic Hydrolysis of Gluten Using Some Proteolytic Enzymes For The Possible Treatment of Celiac Disease

Please comply with the directions of Reasearch & Recognition Committee and University Communicate to this office at the earliest.

Thanking You,

Yours faithfully,

Assistant Registrar (P.G.Admissions)

- Mr./Ms. Amol Vishwanath Tonde Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik
- Dr.Chhajed Santosh Subhash Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik



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Sir/Madam

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Sr.No.	Name of the candidate & Name of the Guide	Remarks
1.	Arya Mukund Kulkarni Guide : Dr. Chhajed Santosh Subhash	Topic Approved and Admitted w.e.f. 23/04/2022 as follows :- Employing Crystal Engineering Technique to
		Modulate Biopharmaceutical Properties of Some Active Pharmaceutical Ingredients

Please comply with the directions of Reasearch & Recognition Committee and University Communicate to this office at the earliest.

Thanking You,

Yours faithfully,

ullu

Assistant Registrar (P.G.Admissions)

- Mr./Ms. Arya Mukund Kulkarni Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik
- Dr.Chhajed Santosh Subhash Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik



Tel. Nos: (020) 2562 1227/1212/1205 Fax no. : 020 25699232 Ganeshkhind, Pune - 07 Email : pgadmis@pun.unipune.ac.in

#### Ref. No.: PGS/1699

Date :01/10/2022

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Sir/Madam

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Sr.No.	Name of the candidate & Name of the Guide	Remarks
1.	Bindu Chandrakant Ghodeswar Guide : Dr. Chhajed Santosh Subhash	Topic Approved and Admitted w.e.f. 23/04/2022 as follows :- Synthesis and Characterization of Multicomponent Solid forms of Some Active Pharmaceutical Ingredients - A Crystal Engineering Approach

Please comply with the directions of Reasearch & Recognition Committee and University Communicate to this office at the earliest.

Thanking You,

Yours faithfully,

ullu

Assistant Registrar (P.G.Admissions)

- Mr./Ms. Bindu Chandrakant Ghodeswar Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik
- Dr.Chhajed Santosh Subhash Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik



Tel. Nos: (020) 2562 1227/1212/1205 Fax no. : 020 25699232 Ganeshkhind, Pune - 07 Email : pgadmis@pun.unipune.ac.in

#### Ref. No.: PGS/1699

Date :01/10/2022

To, The Principal / Director / Head Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik [CPHN018080]

Sir/Madam

The Ph.D. cases forwarded by your Institute/Centre were placed before the Research & Recognition Committee in Pharmaceutical Chemistry (Science and Technology) held on 19/07/2022. The decision/s of Research & Recognition Committee are as follows :

Sr.No.	Name of the candidate & Name of the Guide	Remarks
1.	Dadasaheb Madhukar Kawade Guide : Dr. Rishipathak Dinesh Dattatraya	Topic Approved and Admitted w.e.f. 23/04/2022 as follows :- Design, Synthesis and Biological Evaluation of Thiazolidinedione Derivatives as Antidiabetic Agents

Please comply with the directions of Reasearch & Recognition Committee and University Communicate to this office at the earliest.

Thanking You,

Yours faithfully,

Assistant Registrar (P.G.Admissions)

- Mr./Ms. Dadasaheb Madhukar Kawade Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik
- Dr.Rishipathak Dinesh Dattatraya Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik



Tel. Nos: (020) 2562 1227/1212/1205 Fax no. : 020 25699232 Ganeshkhind, Pune - 07 Email : pgadmis@pun.unipune.ac.in

## **Ref. No.:** PGS/243

Date :27/03/2023

To, The Principal / Director / Head Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik [CPHN018080]

Sir/Madam

The Ph.D. cases forwarded by your Institute/Centre were placed before the Research & Recognition Committee in Pharmaceutical Chemistry (Science and Technology) held on 26/12/2022. The decision/s of Research & Recognition Committee are as follows :

Sr.No.	Name of the candidate & Name of the Guide	Remarks
1.	Deepali Dattatraya Wagh Guide : Dr. Kankate Rani Shantaram	Topic Approved and Admitted w.e.f. 27/08/2022 as follows :- Design, Synthesis, Characterization and
		Anticancer Evaluation of Some Novel Substituted Benzimidazole Derivatives

Please comply with the directions of Research & Recognition Committee and communicate to this office at the earliest.

Thanking You,

Yours faithfully,

onnes

**Deputy Registrar** (**P.G.Admissions**)

- Mr./Ms. Deepali Dattatraya Wagh Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik
- Dr.Kankate Rani Shantaram Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik



Tel. Nos: (020) 2562 1227/1212/1205 Fax no. : 020 25699232 Ganeshkhind, Pune - 07 Email : pgadmis@pun.unipune.ac.in

## Ref. No.: PGS/1699

Date :01/10/2022

To, The Principal / Director / Head Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik [CPHN018080]

Sir/Madam

The Ph.D. cases forwarded by your Institute/Centre were placed before the Research & Recognition Committee in Pharmaceutical Chemistry (Science and Technology) held on 19/07/2022. The decision/s of Research & Recognition Committee are as follows :

Sr.No.	Name of the candidate & Name of the Guide	Remarks
1	Deshmukh Sampada Laxman Guide : Dr. Kankate Rani Shantaram	Topic Approved and Admitted w.e.f. 23/04/2022 as follows :-
1.		Design, synthesis and evaluation of anticancer activity of substituted benzimidazole derivatives

Please comply with the directions of Reasearch & Recognition Committee and University Communicate to this office at the earliest.

Thanking You,

Yours faithfully,

Sulli

Assistant Registrar (P.G.Admissions)

- Mr./Ms. Deshmukh Sampada Laxman Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik
- Dr.Kankate Rani Shantaram Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik



Tel. Nos: (020) 2562 1227/1212/1205 Fax no. : 020 25699232 Ganeshkhind, Pune - 07 Email : pgadmis@pun.unipune.ac.in

## Ref. No.: PGS/1699

Date :01/10/2022

To, The Principal / Director / Head Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik [CPHN018080]

Sir/Madam

The Ph.D. cases forwarded by your Institute/Centre were placed before the Research & Recognition Committee in Pharmaceutical Chemistry (Science and Technology) held on 19/07/2022. The decision/s of Research & Recognition Committee are as follows :

Sr.No.	Name of the candidate & Name of the Guide	Remarks
1.	Madhuri Pandurang Khedkar Guide : Dr. Chhajed Santosh Subhash	Topic Approved and Admitted w.e.f. 23/04/2022 as follows :- Analytical Method Development and Validation of
		Stability Indicating HPLC Methods for few COPD Drugs

Please comply with the directions of Reasearch & Recognition Committee and University Communicate to this office at the earliest.

Thanking You,

Yours faithfully,

ullu

Assistant Registrar (P.G.Admissions)

- Mr./Ms. Madhuri Pandurang Khedkar Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik
- Dr.Chhajed Santosh Subhash Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik



Tel. Nos: (020) 2562 1227/1212/1205 Fax no. : 020 25699232 Ganeshkhind, Pune - 07 Email : pgadmis@pun.unipune.ac.in

**Ref. No.:** PGS/1737

Date :09/10/2022

To, The Principal / Director / Head Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik [CPHN018080]

Sir/Madam

The Ph.D. cases forwarded by your Institute/Centre were placed before the Research & Recognition Committee in Pharmaceutics (Science and Technology) held on 19/07/2022. The decision/s of Research & Recognition Committee are as follows :

Sr.No.	Name of the candidate & Name of the Guide	Remarks
1.	Mayur Popat Sawant Guide : Dr. Deokar Gitanjali Sambhajirao	Topic Approved and Admitted w.e.f. 23/04/2022 as follows :- Formulation, Optimization and Evaluation of
		Nanoparticulate Drug Delivery System for treatment of cancer

Please comply with the directions of Reasearch & Recognition Committee and University Communicate to this office at the earliest.

Thanking You,

Yours faithfully,

ullu

Assistant Registrar (P.G.Admissions)

- Mr./Ms. Mayur Popat Sawant Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik
- Dr.Deokar Gitanjali Sambhajirao Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik



Tel. Nos: (020) 2562 1227/1212/1205 Fax no. : 020 25699232 Ganeshkhind, Pune - 07 Email : pgadmis@pun.unipune.ac.in

**Ref. No.:** PGS/243

Date :27/03/2023

To, The Principal / Director / Head Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik [CPHN018080]

Sir/Madam

The Ph.D. cases forwarded by your Institute/Centre were placed before the Research & Recognition Committee in Pharmaceutics (Science and Technology) held on 26/12/2022. The decision/s of Research & Recognition Committee are as follows :

Sr.No.	Name of the candidate & Name of the Guide	Remarks
1	Puja Manulal Waghela Guide : Dr. Thombre Nilima Abhijeet	Topic Approved and Admitted w.e.f. 27/08/2022 as follows :-
1.		Formulation Development and Evaluation of Colon Targeted Drug Delivery System

Please comply with the directions of Research & Recognition Committee and communicate to this office at the earliest.

Thanking You,

Yours faithfully,

onner

Deputy Registrar (P.G.Admissions)

- Mr./Ms. Puja Manulal Waghela Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik
- Dr. Thombre Nilima Abhijeet Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik



Tel. Nos: (020) 2562 1227/1212/1205 Fax no. : 020 25699232 Ganeshkhind, Pune - 07 Email : pgadmis@pun.unipune.ac.in

**Ref. No.:** PGS/1737

Date :09/10/2022

To, The Principal / Director / Head Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik [CPHN018080]

Sir/Madam

The Ph.D. cases forwarded by your Institute/Centre were placed before the Research & Recognition Committee in Pharmaceutics (Science and Technology) held on 19/07/2022. The decision/s of Research & Recognition Committee are as follows :

Sr.No.	Name of the candidate & Name of the Guide	Remarks
1	Rajendra Tryambak Mogal Guide : Dr. Patil Moreshwar Pandharinath	Topic Approved and Admitted w.e.f. 23/04/2022 as follows :-
1.		Formulation Development and Evaluation of Poorly Soluble Drugs by Cocrystal Technique

Please comply with the directions of Reasearch & Recognition Committee and University Communicate to this office at the earliest.

Thanking You,

Yours faithfully,

Bullu

Assistant Registrar (P.G.Admissions)

- Mr./Ms. Rajendra Tryambak Mogal Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik
- Dr.Patil Moreshwar Pandharinath Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik



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**Ref. No.:** PGS/1737

Date :09/10/2022

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Sir/Madam

The Ph.D. cases forwarded by your Institute/Centre were placed before the Research & Recognition Committee in Pharmaceutics (Science and Technology) held on 19/07/2022. The decision/s of Research & Recognition Committee are as follows :

Sr.No.	Name of the candidate & Name of the Guide	Remarks
1	Rupesh Anil Saindane Guide : Dr. Thombre Nilima Abhijeet	Topic Approved and Admitted w.e.f. 23/04/2022 as follows :-
1.		Formulation Development and Evaluation of Co- crystal Drug Delivery System

Please comply with the directions of Reasearch & Recognition Committee and University Communicate to this office at the earliest.

Thanking You,

Yours faithfully,

Sulli

Assistant Registrar (P.G.Admissions)

- Mr./Ms. Rupesh Anil Saindane Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik
- Dr. Thombre Nilima Abhijeet Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik



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## Ref. No.: PGS/1699

Date :01/10/2022

To, The Principal / Director / Head Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik [CPHN018080]

Sir/Madam

The Ph.D. cases forwarded by your Institute/Centre were placed before the Research & Recognition Committee in Pharmaceutical Chemistry (Science and Technology) held on 19/07/2022. The decision/s of Research & Recognition Committee are as follows :

Sr.No.	Name of the candidate & Name of the Guide	Remarks
1	Sandeep Rangnath Purkar Guide : Dr. Kankate Rani Shantaram	Topic Approved and Admitted w.e.f. 23/04/2022 as follows :-
1.		Design, Synthesis and Antifungal Evaluation of Substituted Benzotriazole Derivatives

Please comply with the directions of Reasearch & Recognition Committee and University Communicate to this office at the earliest.

Thanking You,

Yours faithfully,

Sulli

Assistant Registrar (P.G.Admissions)

- Mr./Ms. Sandeep Rangnath Purkar Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik
- Dr.Kankate Rani Shantaram Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik



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Ref. No.: PGS/pgs/3246

Date :29/06/2022

To, The Principal / Director Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik [CPHN018080]

Sir/Madam

The Ph.D. cases forwarded by your Institute/Centre in the subject Pharmaceutical Chemistry (Science and Technology) have been approved on behalf of Research & Recongnition committee and the decisions of the committee are as follows :

Sr.No.	Name of the candidate & Name of the Guide	Remarks
1	Shantanu Sanjay Ghodke Guide : Dr. Rishipathak Dinesh Dattatraya	Topic Approved and Admitted w.e.f. 23/04/2022as follows :-
1.		Design and Synthesis of Bioactive Benzofused Nitrogen Containing Heterocyclic Derivatives

Please comply with the directions of Reasearch & Recognition Committee and University Communicate to this office at the earliest.

Thanking You,

Yours faithfully,

Bullu

Assistant Registrar (P.G.Admissions)

- Mr./Ms. Shantanu Sanjay Ghodke Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik
- Dr.Rishipathak Dinesh Dattatraya Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik



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**Ref. No.:** PGS/243

Date :27/03/2023

To, The Principal / Director / Head Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik [CPHN018080]

Sir/Madam

The Ph.D. cases forwarded by your Institute/Centre were placed before the Research & Recognition Committee in Pharmaceutics (Science and Technology) held on 26/12/2022. The decision/s of Research & Recognition Committee are as follows :

Sr.No.	Name of the candidate & Name of the Guide	Remarks
1	Sharad Sudhakar Kharat Guide : Dr. Patil Moreshwar Pandharinath	Topic Approved and Admitted w.e.f. 27/08/2022 as follows :-
1.		Formulation and Development of Chronotherapeutic Drug Delivery System

Please comply with the directions of Research & Recognition Committee and communicate to this office at the earliest.

Thanking You,

Yours faithfully,

onner

Deputy Registrar (P.G.Admissions)

- Mr./Ms. Sharad Sudhakar Kharat Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik
- Dr.Patil Moreshwar Pandharinath Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik



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**Ref. No.:** PGS/1737

Date :09/10/2022

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Sir/Madam

The Ph.D. cases forwarded by your Institute/Centre were placed before the Research & Recognition Committee in Pharmaceutics (Science and Technology) held on 19/07/2022. The decision/s of Research & Recognition Committee are as follows :

Sr.No.	Name of the candidate & Name of the Guide	Remarks
1.	Shradha Jagannath Sangle Guide : Dr. Thombre Nilima Abhijeet	Topic Approved and Admitted w.e.f. 23/04/2022 as follows :-
		Formulation Development and Evaluation of Polyherbal Cosmeceutical formulation

Please comply with the directions of Reasearch & Recognition Committee and University Communicate to this office at the earliest.

Thanking You,

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Sulli

Assistant Registrar (P.G.Admissions)

- Mr./Ms. Shradha Jagannath Sangle Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik
- Dr. Thombre Nilima Abhijeet Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik



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Sir/Madam

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Sr.No.	Name of the candidate & Name of the Guide	Remarks
1.	Sonali Ravindra Patil Guide : Dr. Chhajed Santosh Subhash	Topic Approved and Admitted w.e.f. 27/08/2022 as follows :- Development Preparation And Evaluation of
		Phytosomes Containing Different Phytoconstituents

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Thanking You,

Yours faithfully,

onnes

**Deputy Registrar** (**P.G.Admissions**)

- Mr./Ms. Sonali Ravindra Patil Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik
- Dr.Chhajed Santosh Subhash Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik



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Sr.No.	Name of the candidate & Name of the Guide	Remarks
1.	Sonkamble Sneh Diwakar Guide : Dr. Rishipathak Dinesh Dattatraya	Topic Approved and Admitted w.e.f. 23/04/2022 as follows :-
		Design and Synthesis of Biologically active piperazine substituted Quinazolinone derivatives

Please comply with the directions of Reasearch & Recognition Committee and University Communicate to this office at the earliest.

Thanking You,

Yours faithfully,

Sulli

Assistant Registrar (P.G.Admissions)

- Mr./Ms. Sonkamble Sneh Diwakar Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik
- Dr.Rishipathak Dinesh Dattatraya Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik



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## Ref. No.: PGS/1699

Date :01/10/2022

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Sir/Madam

The Ph.D. cases forwarded by your Institute/Centre were placed before the Research & Recognition Committee in Pharmaceutical Chemistry (Science and Technology) held on 19/07/2022. The decision/s of Research & Recognition Committee are as follows :

Sr.No.	Name of the candidate & Name of the Guide	Remarks
1.	Supriya Ravindra Bhamare Guide : Dr. Sonawane Sandeep Suresh	Topic Approved and Admitted w.e.f. 23/04/2022 as follows :- Study of Forced Degradation Behavior and
		Development of Validated Stability Indicating Methods for Pharmaceuticals

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Thanking You,

Yours faithfully,

ullu

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- Mr./Ms. Supriya Ravindra Bhamare Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik
- Dr.Sonawane Sandeep Suresh Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik



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**Ref. No.:** PGS/243

Date :27/03/2023

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Sir/Madam

The Ph.D. cases forwarded by your Institute/Centre were placed before the Research & Recognition Committee in Pharmaceutics (Science and Technology) held on 26/12/2022. The decision/s of Research & Recognition Committee are as follows :

Sr.No.	Name of the candidate & Name of the Guide	Remarks
1.	Vaishnavi Avdhut Pathak Guide : Dr. Kshirsagar Sanjay Jayprakash	Topic Approved and Admitted w.e.f. 27/08/2022 as follows :- Design and Development of Formulation for
		Effective Management of Polycystic Ovarian Syndrome

Please comply with the directions of Research & Recognition Committee and communicate to this office at the earliest.

Thanking You,

Yours faithfully,

onnes

Deputy Registrar (P.G.Admissions)

- Mr./Ms. Vaishnavi Avdhut Pathak Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik
- Dr.Kshirsagar Sanjay Jayprakash Mumbai Educational Trust MET Institute of Pharmacy Addr: Bhujbal Knowledge City Adgav Ta: Nashik Dist: Nashik

This is to certify that the research work presented in this dissertation entitled, "POLYHERBAL HANDWASH" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 by Ms. TEJASHREE R. NIKAM, Ms. MANSI G. SATPUTE, Ms. PAYAL S. PORJE, Ms. PRATIKSHA P. PAGAR, Mr. TEJAS R. SONAWANE, under the guidance and supervision of DR. SUNITA N. SURSE.

This dissertation is now ready for examination.

Place: Nashik

Date:23 /05/2022



Name of the Guide

DR. SUNITA N. SURSE.



This is to certify that the research work presented in this dissertation entitled, "POLYHERBAL HANDWASH" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 by Ms. TEJASHREE R. NIKAM, Ms. MANSI G. SATPUTE, Ms. PAYAL S. PORJE, Ms. PRATIKSHA P. PAGAR, Mr. TEJAS R. SONAWANE, under the guidance and supervision of DR. SUNITA N. SURSE.

This dissertation is now ready for examination.

Place: Nashik

Date:23/05/2022





Dr. S. J. Kshirsagar

Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422 003

PRINCIPAL MET's Institute of Pharmacy Adgaon, Nashik

MET's Institute of Pharmacy, Bhujbal Knowledge City, Nashik

2



This is to certify that the research work presented in this dissertation entitled, **"To improve patient compliance of geriatric patients by formulating bedsores spray"** submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of **MET's Institute of Pharmacy**, **Bhujbal Knowledge City**, **Adgaon**, **Nashik 422003** during the academic year 2021-2022 by **Mr. GAUTAM N. BAJAJ, Mr. ADITYA S. BYAS, Ms.HEEMANI T. DAVE, GARGEE V. DHANESHWAR, SUPRIYA S.NARWADE**, under the guidance and supervision of **DR. SANJAY J. KSHIRSAGAR**.

This dissertation is now ready for examination.

Place: Nashik

Date:

Dr. S. J. Kshirsagar

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This dissertation is now ready for examination.

Place: Nashik

Name of the Guide

DR. Sanjay J. Kshirsagar

Date:

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Place: Nashik

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This dissertation is now ready for examination.

Place: Nashik

Date:23/05/2022





Dr. S. J. Kshirsagar

Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422 003

PRINCIPAL MET's Institute of Pharmacy Adgaon, Nashik

MET's Institute of Pharmacy, Bhujbal Knowledge City, Nashik

2



This is to certify that the research work presented in this dissertation entitled, **"To improve patient compliance of geriatric patients by formulating bedsores spray"** submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of **MET's Institute of Pharmacy**, **Bhujbal Knowledge City**, **Adgaon**, **Nashik 422003** during the academic year 2021-2022 by **Mr. GAUTAM N. BAJAJ, Mr. ADITYA S. BYAS, Ms.HEEMANI T. DAVE, GARGEE V. DHANESHWAR, SUPRIYA S.NARWADE**, under the guidance and supervision of **DR. SANJAY J. KSHIRSAGAR**.

This dissertation is now ready for examination.

Place: Nashik

Date:

Dr. S. J. Kshirsagar

**Principal** Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422 003

This is to certify that the research work presented in this dissertation entitled **"To improve patient compliance of geriatric patients by formulating bedsores spray"** submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 by Mr. GAUTAM N. BAJAJ, Mr. ADITYA S. BYAS, Ms.HEEMANI T. DAVE, GARGEE V. DHANESHWAR, SUPRIYA S.NARWADE, under the guidance and supervision of DR. SANJAY J. KSHIRSAGAR.

This dissertation is now ready for examination.

Place: Nashik

Name of the Guide

DR. Sanjay J. Kshirsagar

Date:



This is to certify that the research work presented in this dissertation entitled, "Screening of Acorus calamus Linn. Extract for its calcium channel blocking activity on tissue preparation" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 by Mr. Sanket Dnyaneshwar Badgujar, Ms. Laxmi Avinash Jadhav, Ms. Sakshi Mahesh Jadhav, Mr. Ganesh Vinayak Jamdar, Ms. Aishwarya Suhas Lad under the guidance and supervision of Ms. Anjali B. Tajanpure

This dissertation is now ready for examination.

Place: Nashik

Date: 23/05/22



Dr. S. J. Kshirsagar

Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422 003

PRINCIPAL, MET's Institu-Adgaon,



Tajanpure This dissertation is now ready for examination Ms. Aishwarya Suhas Lad under the guidance and supervision of Ms. Anjali B. Avinash Jadhav, Ms. Sakshi Mahesh Jadhav, Mr. Ganesh Vinayak Jamdar, academic year 2021-2022 by Mr. Sanket Dnyaneshwar Badgujar, Ms. Laxmi Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the University, Pune was carried out in the laboratories of MET's Institute of requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune activity "Screening of Acorus calamus Linn. Extract for its calcium channel blocking This is to certify that the research work presented in this dissertation entitled. on tissue preparation" submitted in the partial fulfillment of the

Place: Nashik

Date: 23/05/22

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5

Guide

Ms. Anjatt B Tajanpure



This is to certify that the research work presented in this dissertation entitled, "Comparative study of Marketed product of tulsi and fresh lives of tulsi used as immunity booster" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 by Mr. Akash Khanapure, under the guidance and supervision of Dr. S. P. Ahirrao This dissertation is now ready for examination.

elles

Place: Nashik

Dr. S. J. Kshirsagar

Date:



This is to certify that the research work presented in this dissertation entitled, "Comparative study of Marketed product of tulsi and fresh lives of tulsi used as immunity booster" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 by Mr. Akash Khanapure, under the guidance and supervision of Dr. S. P. Ahirrao This dissertation is now ready for examination.

Striwal.

Place: Nashik

Date:

Name of the Guide Guide



This is to certify that the research work presented in this dissertation entitled, **Formulation Of Herbal mouthwash( clove, turmeric, liquorice , Tulsi)** submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of **MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003** during the academic year 2021-2022 by **Bhushan Arun Nikam,** under the guidance and supervision of **Dr. UD Laddha** This dissertation is now ready for examination.

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Place: Nashik

Dr. S. J. Kshirsagar

Date:



This is to certify that the research work presented in this dissertation entitled, **Formulation Of Herbal mouthwash( clove, turmeric, liquorice , Tulsi)** submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of **MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003** during the academic year 2021-2022 by **Bhushan Arun Nikam** under the guidance and supervision of Dr. UD Laddha This dissertation is now ready for examination.

7 2 Ladolhar

Place: Nashik

Date:

Name of the Guide Guide



This is to certify that the research work presented in this dissertation entitled, **To prepare and evaluate herbal mouth wash** submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of **MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003** during the academic year 2021-2022 by **Chordiya Yash Sanjay**, under the guidance and supervision of **Dr. UD Laddha** 

This dissertation is now ready for examination.

refer

Place: Nashik

Dr. S. J. Kshirsagar

Date:



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This dissertation is now ready for examination.

Heladelhar

Place: Nashik

Date:

Name of the Guide Guide



This is to certify that the research work presented in this dissertation entitled, **Nutrient Chocolate Bar** submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of **MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003** during the academic year 2021-2022 by **Dakshita Yatin Raut,** under the guidance and supervision of **Dr. UD Laddha** This dissertation is now ready for examination.

relier

Dr. S. J. Kshirsagar

Place: Nashik Date:



This is to certify that the research work presented in this dissertation entitled, **Nutrient Chocolate Bar** submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of **MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003** during the academic year 2021-2022 by **Dakshita Yatin Raut** under the guidance and supervision of Dr. UD Laddha This dissertation is now ready for examination.

Pheladelha

Place: Nashik Date: Name of the Guide Guide



This is to certify that the research work presented in this dissertation entitled, "Antiacne moisturizer by incorporating tea tree oil" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 by Ms. Dhanashree Salve, under the guidance and supervision of Dr. D. S. Bhambere

This dissertation is now ready for examination.

ello

Dr. S. J. Kshirsagar

Place: Nashik

Date:



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This dissertation is now ready for examination.



Place: Nashik Date: 24-05-22

Dr. S. J. Kstlirsagar Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422 003



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This dissertation is now ready for examination.



Aul 2415/22

Dr. Sunita Surse. (Guide)

Place -Nashik

Date- 24-05-22



### DECLARATION

I hereby declare that the dissertation entitled "Formulation and development of herbal face scrub" is based on the work carried out by me in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 under the guidance and supervision of Dr. Sunita Surse.

Place: Nashik Date: 24-05-22



Name of the student Ms. Barve Ravina Valu, Ebale Deshmukh Dhanshri Hemant, Somuch Bagul Mayuri karbhari.



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Dr. S. J. Kshirsagar

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Place: Nashik



This is to certify that the research work presented in this dissertation entitled, **"To improve patient compliance of geriatric patients by formulating bedsores spray"** submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of **MET's Institute of Pharmacy**, **Bhujbal Knowledge City**, **Adgaon**, **Nashik 422003** during the academic year 2021-2022 by **Mr. GAUTAM N. BAJAJ, Mr. ADITYA S. BYAS, Ms.HEEMANI T. DAVE, GARGEE V. DHANESHWAR, SUPRIYA S.NARWADE**, under the guidance and supervision of **DR. SANJAY J. KSHIRSAGAR**.

This dissertation is now ready for examination.

Place: Nashik

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Dr. S. J. Kshirsagar

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This dissertation is now ready for examination.

Place: Nashik

Name of the Guide

DR. Sanjay J. Kshirsagar



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This dissertation is now ready for examination.

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Dr. S. J. Kshirsagar

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This dissertation is now ready for examination.

Place: Nashik

Name of the Guide

DR. Sanjay J. Kshirsagar



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Dr. S. J. Kshirsagar

Place: Nashik



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This is to certify that the research work presented in this dissertation entitled, "Screening of Acorus calamus Linn. Extract for its calcium channel blocking activity on tissue preparation" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 by Mr. Sanket Dnyaneshwar Badgujar, Ms. Laxmi Avinash Jadhav, Ms. Sakshi Mahesh Jadhav, Mr. Ganesh Vinayak Jamdar, Ms. Aishwarya Suhas Lad under the guidance and supervision of Ms. Anjali B. Tajanpure

This dissertation is now ready for examination.

Place: Nashik

Date: 23/05/22



Dr. S. J. Kshirsagar

Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422 003

PRINCIPAL, MET's Institu-Adgaon,



Tajanpure This dissertation is now ready for examination Ms. Aishwarya Suhas Lad under the guidance and supervision of Ms. Anjali B. Avinash Jadhav, Ms. Sakshi Mahesh Jadhav, Mr. Ganesh Vinayak Jamdar, academic year 2021-2022 by Mr. Sanket Dnyaneshwar Badgujar, Ms. Laxmi Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the University, Pune was carried out in the laboratories of MET's Institute of requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune activity "Screening of Acorus calamus Linn. Extract for its calcium channel blocking This is to certify that the research work presented in this dissertation entitled. on tissue preparation" submitted in the partial fulfillment of the

Place: Nashik

Date: 13/05/22

lealnug ADGAON, NASIK -Knowledg KOEWIR Ms. Anjatt B Tajanpure

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Guide



This is to certify that the research work presented in this dissertation entitled, **Formulation Of Herbal mouthwash( clove, turmeric, liquorice , Tulsi)** submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of **MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003** during the academic year 2021-2022 by **Omkar Nagendra Jadhav,** under the guidance and supervision of **Dr. UD Laddha** This dissertation is now ready for examination.

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Place: Nashik

Dr. S. J. Kshirsagar



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Place: Nashik

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Name of the Guide Guide



This is to certify that the research work presented in this dissertation entitled, "Comparative study of Marketed product of tulsi and fresh lives of tulsi used as immunity booster" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 by Mr. Pradip Khandve, under the guidance and supervision of Dr. S. P. Ahirrao This dissertation is now ready for examination.

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Place: Nashik

Dr. S. J. Kshirsagar



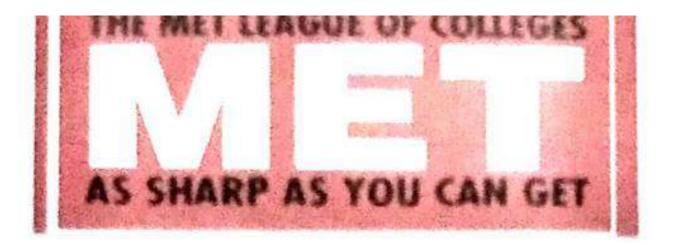
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Place: Nashik

Date:

Name of the Guide Guide



This is to certify that the research work presented in this dissertation entitled, "Isolation and Extraction of Pectin and Starch from Finger Millet (Ragi)" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET'S Institute of pharmacy, Bhujbal knowledge city, Adgaon, Nashik 422003 during the academic year 2021-2022 by Ms. Shivanjali Jejurkar, Ms. Sanjana Kikale, Ms. Sakshi Pagar, Ms. Sejal Jagtap, Ms. Priyanka Borse, under the guidance and supervision of (Dr.Gitanjali.S.Deokar).

This dissertation is now ready for examination.

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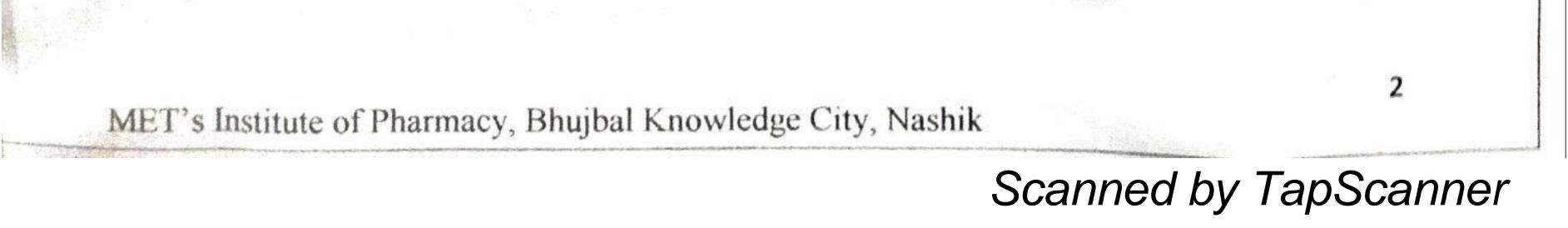
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# Place: Nashik Date: $2\zeta/05/22$



Dr. S. J. Kshirsagar PRINCIPAL MET's Prefite pal Pharmacy Augaon, Nashik Bhujbal Knowledge City MET's Institute of pharmacy, Adgaon, Nashik- 422003

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This dissertation is now ready for examination.

Place: Nashik

Date: 26/05/22

184 Dr. Gitanjali. S. Deokar

Guide





This is to certify that the research work presented in this dissertation entitled, **"Formulation and development of herbal face scrub"** submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of **MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003** during the academic year 2021-2022 by **Ms. Bagul Mayuri karbhari, Barve Ravina Valu, Deshmukh Dhanshri Hemant**, under the guidance and supervision of **Dr. Sunita Surse.** 

This dissertation is now ready for examination.



Place: Nashik Date: 24-05-22

Dr. S. J. Kstlirsagar Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422 003



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This dissertation is now ready for examination.



Aul 2415/22

Dr. Sunita Surse. (Guide)

Place -Nashik

Date- 24-05-22



### DECLARATION

I hereby declare that the dissertation entitled "Formulation and development of herbal face scrub" is based on the work carried out by me in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 under the guidance and supervision of Dr. Sunita Surse.

Place: Nashik Date: 24-05-22



Name of the student Ms. Barve Ravina Valu, Ebale Deshmukh Dhanshri Hemant, Somuch Bagul Mayuri karbhari.



This is to certify that the research work presented in this dissertation entitled, "Screening of Acorus calamus Linn. Extract for its calcium channel blocking activity on tissue preparation" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 by Mr. Sanket Dnyaneshwar Badgujar, Ms. Laxmi Avinash Jadhav, Ms. Sakshi Mahesh Jadhav, Mr. Ganesh Vinayak Jamdar, Ms. Aishwarya Suhas Lad under the guidance and supervision of Ms. Anjali B. Tajanpure

This dissertation is now ready for examination.

Place: Nashik

Date: 23/05/22



Dr. S. J. Kshirsagar

Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422 003

PRINCIPAL, MET's Institu-Adgaon,



Tajanpure This dissertation is now ready for examination Ms. Aishwarya Suhas Lad under the guidance and supervision of Ms. Anjali B. Avinash Jadhav, Ms. Sakshi Mahesh Jadhav, Mr. Ganesh Vinayak Jamdar, academic year 2021-2022 by Mr. Sanket Dnyaneshwar Badgujar, Ms. Laxmi Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the University, Pune was carried out in the laboratories of MET's Institute of requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune activity "Screening of Acorus calamus Linn. Extract for its calcium channel blocking This is to certify that the research work presented in this dissertation entitled. on tissue preparation" submitted in the partial fulfillment of the

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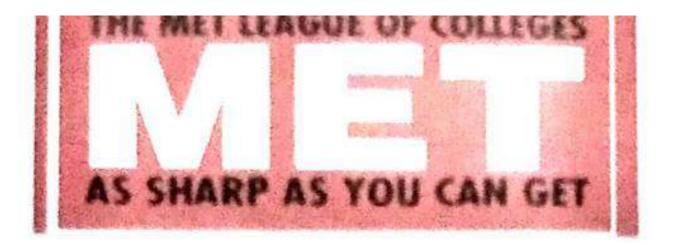
lealnug ADGAON, NASIK -Knowledg KOEWIR Ms. Anjatt B Tajanpure

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Guide



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This dissertation is now ready for examination.

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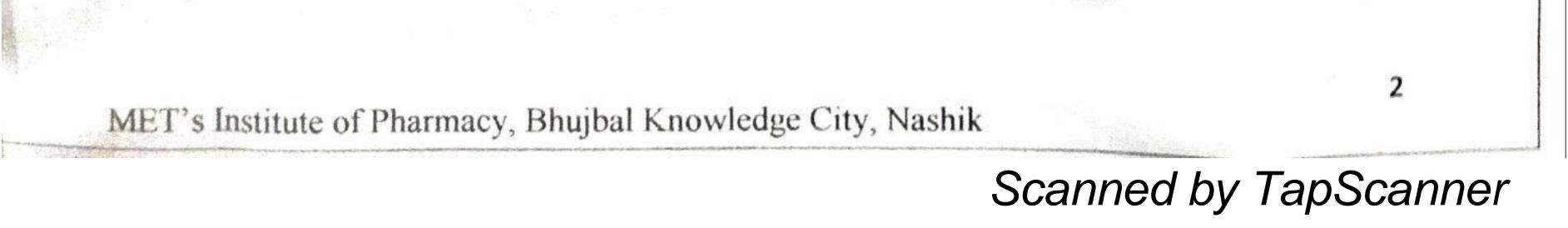
A Contraction

# Place: Nashik Date: $2\zeta/05/22$



Dr. S. J. Kshirsagar PRINCIPAL MET's Prefite pal Pharmacy Augaon, Nashik Bhujbal Knowledge City MET's Institute of pharmacy, Adgaon, Nashik- 422003

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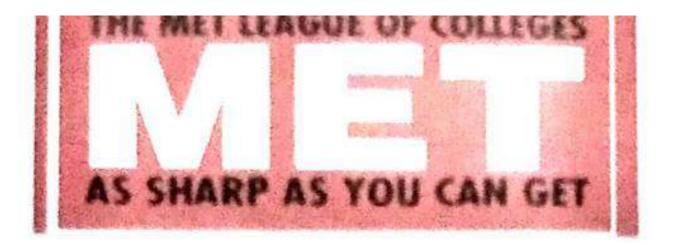
Place: Nashik

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184 Dr. Gitanjali. S. Deokar

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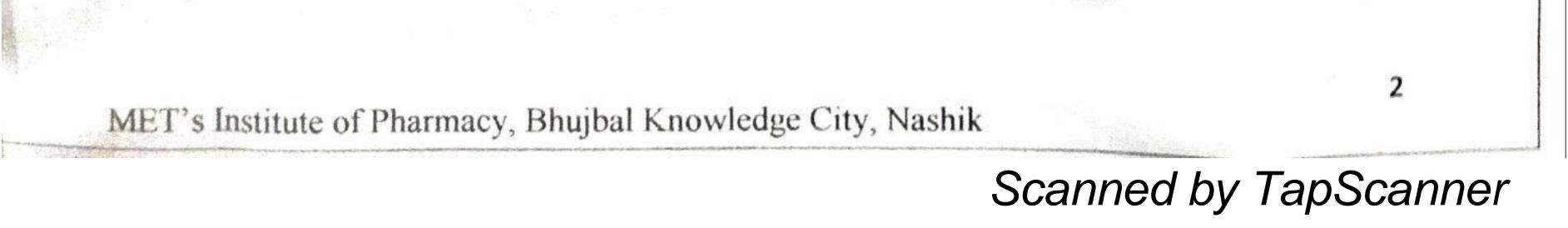
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Place: Nashik

Date: 26/05/22

184 Dr. Gitanjali. S. Deokar

Guide





This is to certify that the research work presented in this dissertation entitled, **To prepare and evaluate herbal mouth wash** submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of **MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003** during the academic year 2021-2022 by **Shirole Kiran Rajendra**, under the guidance and supervision of **Dr. UD Laddha** 

This dissertation is now ready for examination.

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Dr. S. J. Kshirsagar



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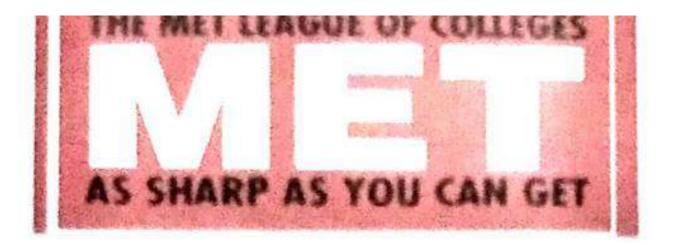
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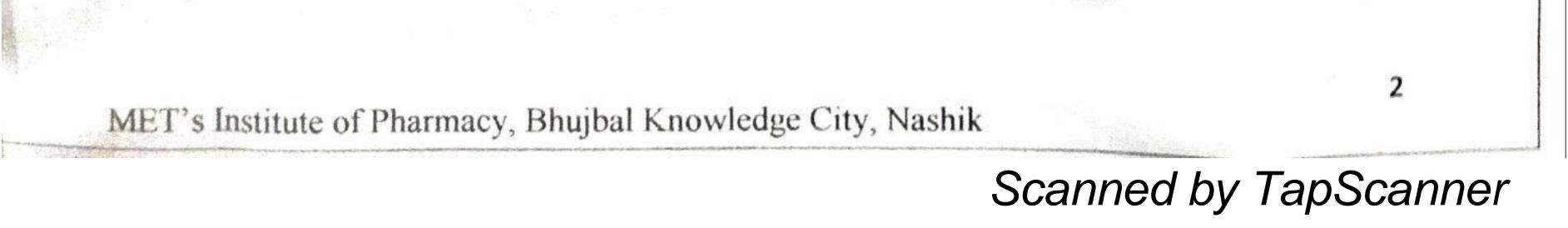
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This dissertation is now ready for examination.

Place: Nashik

Date: 26/05/22

184 Dr. Gitanjali. S. Deokar

Guide





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This dissertation is now ready for examination.

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Place: Nashik Date: Dr. S. J. Kshirsagar



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This dissertation is now ready for examination.

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Place: Nashik

Dr. S. J. Kshirsagar



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Date:23 /05/2022



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Dr. S. J. Kshirsagar

Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422 003

PRINCIPAL MET's Institute of Pharmacy Adgaon, Nashik

MET's Institute of Pharmacy, Bhujbal Knowledge City, Nashik

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Dr. S. J. Kshirsagar

Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422 003

PRINCIPAL MET's Institute of Pharmacy Adgaon, Nashik

MET's Institute of Pharmacy, Bhujbal Knowledge City, Nashik

2



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Place: Nashik

Dr. S. J. Kshirsagar



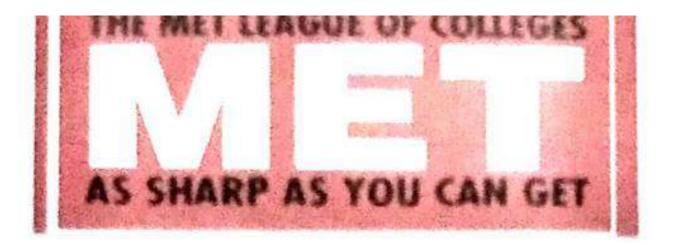
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Place: Nashik

Date:



This is to certify that the research work presented in this dissertation entitled, "Isolation and Extraction of Pectin and Starch from Finger Millet (Ragi)" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET'S Institute of pharmacy, Bhujbal knowledge city, Adgaon, Nashik 422003 during the academic year 2021-2022 by Ms. Shivanjali Jejurkar, Ms. Sanjana Kikale, Ms. Sakshi Pagar, Ms. Sejal Jagtap, Ms. Priyanka Borse, under the guidance and supervision of (Dr.Gitanjali.S.Deokar).

This dissertation is now ready for examination.

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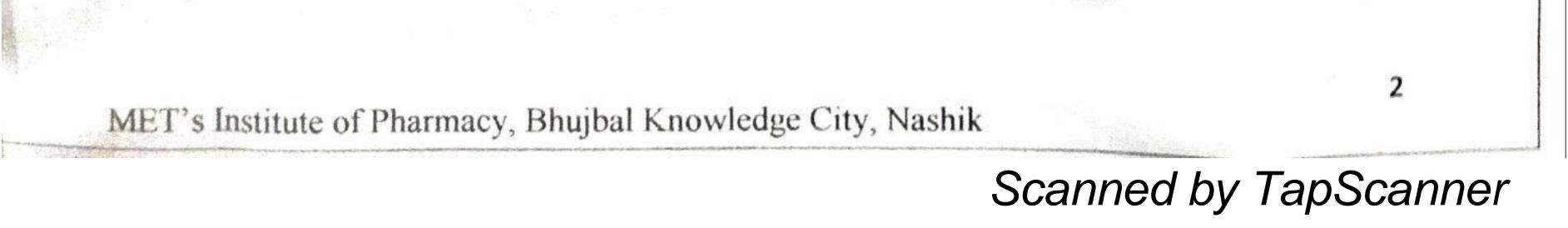
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# Place: Nashik Date: $2\zeta/05/22$



Dr. S. J. Kshirsagar PRINCIPAL MET's Prefite pal Pharmacy Augaon, Nashik Bhujbal Knowledge City MET's Institute of pharmacy, Adgaon, Nashik- 422003

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This dissertation is now ready for examination.

Place: Nashik

Date: 26/05/22

184 Dr. Gitanjali. S. Deokar

Guide





This is to certify that the research work presented in this dissertation entitled, **Nutrient Chocolate Bar** submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of **MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003** during the academic year 2021-2022 by **Sakshi Subhash Wagh,** under the guidance and supervision of **Dr. UD Laddha** 

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Place: Nashik Date:



This is to certify that the research work presented in this dissertation entitled, "Screening of Acorus calamus Linn. Extract for its calcium channel blocking activity on tissue preparation" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 by Mr. Sanket Dnyaneshwar Badgujar, Ms. Laxmi Avinash Jadhav, Ms. Sakshi Mahesh Jadhav, Mr. Ganesh Vinayak Jamdar, Ms. Aishwarya Suhas Lad under the guidance and supervision of Ms. Anjali B. Tajanpure

This dissertation is now ready for examination.

Place: Nashik

Date: 23/05/22



Dr. S. J. Kshirsagar

Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422 003

PRINCIPAL, MET's Institu-Adgaon,



Tajanpure This dissertation is now ready for examination Ms. Aishwarya Suhas Lad under the guidance and supervision of Ms. Anjali B. Avinash Jadhav, Ms. Sakshi Mahesh Jadhav, Mr. Ganesh Vinayak Jamdar, academic year 2021-2022 by Mr. Sanket Dnyaneshwar Badgujar, Ms. Laxmi Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the University, Pune was carried out in the laboratories of MET's Institute of requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune activity "Screening of Acorus calamus Linn. Extract for its calcium channel blocking This is to certify that the research work presented in this dissertation entitled. on tissue preparation" submitted in the partial fulfillment of the

Place: Nashik

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Ms. Anjatt B Tajanpure



This is to certify that the research work presented in this dissertation entitled, "Antiacne moisturizer by incorporating tea tree oil" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 by Mr. Shaikh MD Sohel, under the guidance and supervision of Dr. D. S. Bhambere

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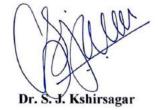
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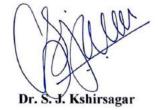
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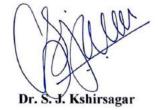
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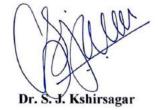
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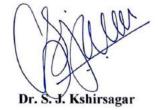
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Place: Nashik

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Date: 25/05/2022



Dr. S. J. Kshirsagar

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Date: 25/05/2022

Mr. Pratap Pawar

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# BHUJBAL KNOWLEDGE CITY MET'S INSTITUTE OF PHARMACY ADGAON, NASHIK-422 003



## CERTIFICATE

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This dissertation is now ready for examination.

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Date: 25/05/2022



Dr. S. J. Kshirsagar

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# HERBAL SKIN BRIGHTNING GEL

A Dissertation Submitted To Savitribai Phule Pune University, Pune In Partial Fulfillment of Requirements for the Award of Degree of

#### **BACHELOR OF PHARMACY**

BY

Ms. Yogita V. Ahire

Mr. Vaibhav U. Dhikale

Ms. Vaishnavi K. Holgade

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Mr. Yash B. Kulkarni

Guide

DR. SANTOSH S. CHHAJED Co Guide MS. SMITA KOTHMIRE



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This is to certify that the research work presented in this dissertation entitled, "Herbal Skin Brightening Gel" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2022-2023 by Mr. Vaibhav U. Dhikale under the guidance and supervision of Dr. Santosh S. Chhajed and Ms. Smita Kothmire.

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Malle Dr. S. J. Kshirsagar

Place: **Nashik** Date: 9/05/2023

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Place: Nashik Date: 09-05-2023

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Jus Dr. Santosh S. Chhajed

Guide

Ms. Smita Kothmire

Co Guide

# HERBAL SKIN BRIGHTNING GEL

A Dissertation Submitted To Savitribai Phule Pune University, Pune In Partial Fulfillment of Requirements for the Award of Degree of

#### **BACHELOR OF PHARMACY**

BY

Ms. Yogita V. Ahire

Mr. Vaibhav U. Dhikale

Ms. Vaishnavi K. Holgade

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Mr. Yash B. Kulkarni

Guide

DR. SANTOSH S. CHHAJED Co Guide MS. SMITA KOTHMIRE



BHUJBAL KNOWLEDGE CITY MET's INSTITUTE OF PHARMACY ADGAON, NASHIK-422 003 2022-2023



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Mr. Yash B. Kulkarni

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Ms. Smita Kothmire

Co Guide

**Development of Herbal Hair Tonic** 

A Dissertation Submitted To

Savitribai Phule Pune University, Pune

In Partial Fulfillment of Requirements for the Award of

**Degree of** 

**BACHELOR OF PHARMACY** 

BY

Ashlesha sunil kapadane Pooja Bhimashankar Mitkar

Akshada Padmakar Desale

Guide

Mr.Rakesh Shelke



BHUJBAL KNOWLEDGE CITY MET' S INSTITUTE OF PHARMACY ADGAON, NASHIK-422 003 2021-2022

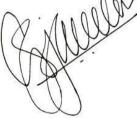


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Place: Nashik

Date: 30/05/2022



Dr. S. J. Kshirsagar

Principal

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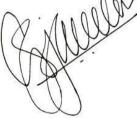


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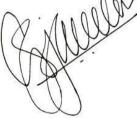


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Name of the Guide Guide **Development of Herbal Face Toner** 

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In Partial Fulfillment of Requirements for the Award of

**Degree of** 

**BACHELOR OF PHARMACY** 

BY

Kalyani Ghotekar

Sakshi Sonawane

Akansha Zugare

Guide Mr.Rakesh Shelke



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Place: Nashik

Date:30/05/2022

Name of the Guide Guide



This is to certify that the research work presented in this dissertation entitled, "Screening of Acorus calamus Linn. Extract for its calcium channel blocking activity on tissue preparation" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 by Mr. Sanket Dnyaneshwar Badgujar, Ms. Laxmi Avinash Jadhav, Ms. Sakshi Mahesh Jadhav, Mr. Ganesh Vinayak Jamdar, Ms. Aishwarya Suhas Lad under the guidance and supervision of Ms. Anjali B. Tajanpure

This dissertation is now ready for examination.

Place: Nashik

Date: 23/05/22



Dr. S. J. Kshirsagar

Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422 003

PRINCIPAL, MET's Institu-Adgaon,



Tajanpure This dissertation is now ready for examination Ms. Aishwarya Suhas Lad under the guidance and supervision of Ms. Anjali B. Avinash Jadhav, Ms. Sakshi Mahesh Jadhav, Mr. Ganesh Vinayak Jamdar, academic year 2021-2022 by Mr. Sanket Dnyaneshwar Badgujar, Ms. Laxmi Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the University, Pune was carried out in the laboratories of MET's Institute of requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune activity "Screening of Acorus calamus Linn. Extract for its calcium channel blocking This is to certify that the research work presented in this dissertation entitled. on tissue preparation" submitted in the partial fulfillment of the

Place: Nashik

Date: 23/05/22

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Ms. Anjatt B Tajanpure

ALMOND UNDER EYE GEL

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**BACHELOR OF PHARMACY** 

BY

AYUSH NATHWANI ASHUTOSH R. MAHATME HIMANSHU BARVE

SHUBHAM KOTWAL

**RISHIKESH PATIL** 

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**DR. MRS. NEELAM DASHPUTRE** 



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This dissertation is now ready for examination.

Place: **Nashik** Date:

Dr. Mrs. Neelam Dashputre Guide



# MET's INSTITUTE OF PHARMACY ADGAON, NASHIK-422 003 2021-2022

#### CERTIFICATE

This is to certify that the research work presented in this dissertation entitled, **"Formulation and development of SLS free Toothpaste"** submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of **MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003** during the academic year 2021-2022 by **Ms.Tanuja Mahale, Mr.Shubham Bhagat, Mr.Pavan Yamgar, Mr.Dhiraj Navare** under the guidance and supervision of (**Dr. Nilima A. Thombre**).

This dissertation is now ready for examination.





Dr. S. J. Kshirsagar

Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422 003



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Place: Nashik Date:  $26(s^2) = 22$  Dr. Nilima A. Thombre Guide ALMOND UNDER EYE GEL

A Dissertation Submitted To Savitribai Phule Pune University, Pune In Partial Fulfillment of Requirements for the Award of Degree of

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AYUSH NATHWANI ASHUTOSH R. MAHATME HIMANSHU BARVE

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**RISHIKESH PATIL** 

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Place: **Nashik** Date:

Dr. Mrs. Neelam Dashputre Guide



This is to certify that the research work presented in this dissertation entitled, **"Formulation and Evalution Of Poly-herbal Hair Conditioner "** submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of **MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003** during the academic year 2021-2022 by **Ms. Dawange Komal Bhausaheb, Kedare Pooja Yashwant** under the guidance and supervision of **Dr. Sunita Surse.** 

This dissertation is now ready for examination.

0.

Dr. S. J. Kshirsagar

Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422 003

Place: Nashik Date: 27/5/22



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This dissertation is now ready for examination.

Dr. Sunita Surse. (Guide)

Place -Nashik Date- 27/5/22



#### DECLARATION

I hereby declare that the dissertation entitled "Formulation and Evaluation Of Polyherbal Hair Conditioner" is based on the work carried out by me in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 under the guidance and supervision of Dr. Sunita Surse.

Place: Nashik Date:

Name of the student Ms. Dawange komal Bhausaheb. Ms. Kedare Pooja Yashwant.



This is to certify that the research work presented in this dissertation entitled, "Comparative study of Marketed product of tulsi and fresh lives of tulsi used as immunity booster" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 by Ms. Krushnali Ukande, under the guidance and supervision of Dr. M. P. Patil This dissertation is now ready for examination.



Dr. S. J. Kshirsagar

Place: Nashik Date:



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Place: Nashik Date: Dr. M. P. Patil Guide



This is to certify that the research work presented in this dissertation entitled, "Development, Validation and Stability Indicating Method of B-receptor agonist drug using Forced Degradation Study" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University. Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 by Ms. Neha R. Mali, Mr. Pramod B. Kutke, Mr. Prasad D. Rayte, Mr. Sumeet D. Kuyate, Mr. Sidhant V. Byas under the guidance and supervision of Mr. Rohan S. Ahire.

This dissertation is now ready for examination.



Place: Nashik Date: 25/5 2022

Dr. S. J. Kshirsagar

Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422 003 PRINCIPAL MET's Institute of Pharmacy Adgaon, Nashik



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This dissertation is now ready for examination.



S. Ahire

Mr. Rohan S. Ahire

**UG Guide** 

Place: Nashik

Date: 25/5/2022

# DECLARATION

1 hereby declare that the dissertation entitled "Development, Validation and Stability Indicating Method of B-receptor agonist drug using Forced Degradation Study" is based on the work carried out by me in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 under the guidance and supervision of Mr. Rohan S. Ahire.



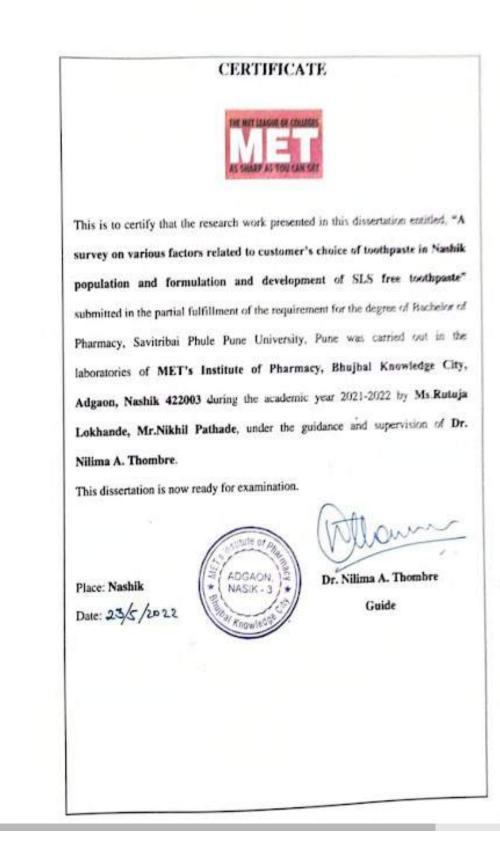
Place: Nashik

Date: 25/5/2022

Ms. Neha R. Mali Mr. Pramod B. Kutke Mr. Sumeet D. Kuyate Mr. Prasad D. Rayte Mr. Sidhant V. Byas

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# MET's INSTITUTE OF PHARMACY ADGAON, NASHIK-422 003 2021-2022

#### CERTIFICATE

This is to certify that the research work presented in this dissertation entitled, **"Formulation and development of SLS free Toothpaste"** submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of **MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003** during the academic year 2021-2022 by **Ms.Tanuja Mahale, Mr.Shubham Bhagat, Mr.Pavan Yamgar, Mr.Dhiraj Navare** under the guidance and supervision of (**Dr. Nilima A. Thombre**).

This dissertation is now ready for examination.





Dr. S. J. Kshirsagar

Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422 003



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This dissertation is now ready for examination.

antre

Place: Nashik Date:  $26(s^2) = 22$  Dr. Nilima A. Thombre Guide **Development of Herbal Hair Tonic** 

A Dissertation Submitted To

Savitribai Phule Pune University, Pune

In Partial Fulfillment of Requirements for the Award of

**Degree of** 

**BACHELOR OF PHARMACY** 

BY

Ashlesha sunil kapadane Pooja Bhimashankar Mitkar

Akshada Padmakar Desale

Guide

Mr.Rakesh Shelke



BHUJBAL KNOWLEDGE CITY MET' S INSTITUTE OF PHARMACY ADGAON, NASHIK-422 003 2021-2022

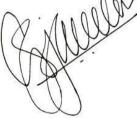


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Place: Nashik

Date: 30/05/2022



Dr. S. J. Kshirsagar

Principal

PRINCIPAL MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, NASHIK-422 003.



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examination.



Place: Nashik

Date:30/05/2022

Name of the Guide Guide



This is to certify that the research work presented in this dissertation entitled, "Development, Validation and Stability Indicating Method of B-receptor agonist drug using Forced Degradation Study" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University. Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 by Ms. Neha R. Mali, Mr. Pramod B. Kutke, Mr. Prasad D. Rayte, Mr. Sumeet D. Kuyate, Mr. Sidhant V. Byas under the guidance and supervision of Mr. Rohan S. Ahire.

This dissertation is now ready for examination.



Place: Nashik Date: 25/5 2022

Dr. S. J. Kshirsagar

Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422 003 PRINCIPAL MET's Institute of Pharmacy Adgaon, Nashik



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This dissertation is now ready for examination.



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Mr. Rohan S. Ahire

**UG Guide** 

Place: Nashik

Date: 25/5/2022

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Place: Nashik

Date: 25/5/2022

Ms. Neha R. Mali Mr. Pramod B. Kutke Mr. Sumeet D. Kuyate Mr. Prasad D. Rayte Mr. Sidhant V. Byas

This is to certify that the research work presented in this dissertation entitled, "POLYHERBAL HANDWASH" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 by Ms. TEJASHREE R. NIKAM, Ms. MANSI G. SATPUTE, Ms. PAYAL S. PORJE, Ms. PRATIKSHA P. PAGAR, Mr. TEJAS R. SONAWANE, under the guidance and supervision of DR. SUNITA N. SURSE.

This dissertation is now ready for examination.

Place: Nashik

Date:23 /05/2022



Name of the Guide

DR. SUNITA N. SURSE.



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This dissertation is now ready for examination.

Place: Nashik

Date:23/05/2022





Dr. S. J. Kshirsagar

Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422 003

PRINCIPAL MET's Institute of Pharmacy Adgaon, Nashik

MET's Institute of Pharmacy, Bhujbal Knowledge City, Nashik

2

ALMOND UNDER EYE GEL

A Dissertation Submitted To Savitribai Phule Pune University, Pune In Partial Fulfillment of Requirements for the Award of Degree of

**BACHELOR OF PHARMACY** 

BY

AYUSH NATHWANI ASHUTOSH R. MAHATME HIMANSHU BARVE

SHUBHAM KOTWAL

**RISHIKESH PATIL** 

Guide

**DR. MRS. NEELAM DASHPUTRE** 



BHUJBAL KNOWLEDGE CITY MET'S INSTITUTE OF PHARMACY ADGAON, NASHIK-422 003 2021-2022



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This dissertation is now ready for examination.

Principal

Dr. S. J. Kshirsagar

Frincipel MET's Institute Of Pharmacy Adgeon.Neshik-3

Place: **Nashik** Date:



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This dissertation is now ready for examination.

Place: **Nashik** Date:

Dr. Mrs. Neelam Dashputre Guide



This is to certify that the research work presented in this dissertation entitled, "Capsicum and Garlic ointment" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 by Ms Khule Snehal Changdev, Ms Choursiya Kajal Ashwin, Ms Nikam Samruddhi Sanjay ,Ms Chavan Gayatri Vishwas, Ms Jadhav Sakshi Dilip, under the guidance and supervision of Dr Pavan Udavant. This dissertation is now ready for examination.

ADGAON

ASHIK

Date: 2415202

Dr Payan Udavant

Guide



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This dissertation is now ready for examination.

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Place: Nashik

Dr. S. J. Kshirsagar

Date:



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Feladelhar

Place: Nashik

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Name of the Guide Guide



# MET's INSTITUTE OF PHARMACY ADGAON, NASHIK-422 003 2021-2022

#### CERTIFICATE

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This dissertation is now ready for examination.





Dr. S. J. Kshirsagar

Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422 003



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antre

Place: Nashik Date:  $26(s^2) = 22$  Dr. Nilima A. Thombre Guide



This is to certify that the research work presented in this dissertation entitled, "Title" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 by Mr. Asole Rahul Kiran, Mr. Mahajan Sahil Manish, Ms. Sujgure Akanksha Dattatray Ms. Vyavahare Maheshwari Dilip, Ms. Yeole Gayatri Balkrishna, under the guidance and supervision of Dr.S.P.Kakad

This dissertation is now ready for examination.

Dr. S. P. Kakad

Guide

Date: 30/05/2022



This is to certify that the research work presented in this dissertation entitled, "Herbal Beard Spray" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 by Mr. Asole Rahul Kiran, Mr. Mahajan Sahil Manish, Ms. Sujgure Akanksha Dattatray, Ms. Vyavahare Maheshwari Dilip, Ms. Yeole Gayatri Balkrishna under the guidance and supervision of Dr. S. P. Kakad

This dissertation is now ready for examination.

#### Dr. S. J. Kshirsagar PRINCIPAL MET s institute of Pharmacy Bhujbal Knowledge City Adgaon NASHIK 422 003

Dr. S. J. Kshirsagar

#### Principal

Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422 003

Place: Nashik

Date: 30/05/2022



This is to certify that the research work presented in this dissertation entitled, "Development, Validation and Stability Indicating Method of B-receptor agonist drug using Forced Degradation Study" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University. Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 by Ms. Neha R. Mali, Mr. Pramod B. Kutke, Mr. Prasad D. Rayte, Mr. Sumeet D. Kuyate, Mr. Sidhant V. Byas under the guidance and supervision of Mr. Rohan S. Ahire.

This dissertation is now ready for examination.



Place: Nashik Date: 25/5 2022

Dr. S. J. Kshirsagar

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This dissertation is now ready for examination.



S. Ahire

Mr. Rohan S. Ahire

**UG Guide** 

Place: Nashik

Date: 25/5/2022

# DECLARATION

1 hereby declare that the dissertation entitled "Development, Validation and Stability Indicating Method of B-receptor agonist drug using Forced Degradation Study" is based on the work carried out by me in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 under the guidance and supervision of Mr. Rohan S. Ahire.



Place: Nashik

Date: 25/5/2022

Ms. Neha R. Mali Mr. Pramod B. Kutke Mr. Sumeet D. Kuyate Mr. Prasad D. Rayte Mr. Sidhant V. Byas



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ADGAON

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Place: Nashik

Date: 2415202

Dr Payan Udavant

Guide



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10939

Place: Nashik

Dr. S. J. Kshirsagar

Date:



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Place: Nashik Date: Dr. M. P. Patil Guide



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Place: Nashik Date: 25/5 2022

Dr. S. J. Kshirsagar

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S. Ahire

Mr. Rohan S. Ahire

**UG Guide** 

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Place: Nashik

Date: 25/5/2022

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Place: Nashik Date: Dr. M. P. Patil Guide



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Place: Nashik

Dr. S. J. Kshirsagar

Date:



This is to certify that the research work presented in this dissertation entitled, "Comparative study of Marketed product of tulsi and fresh lives of tulsi used as immunity booster" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 by Ms. Ms. Anushka Jadhav, under the guidance and supervision of Dr. M. P. Patil This dissertation is now ready for examination.



Place: Nashik Date: Dr. M. P. Patil Guide **Development of Herbal Hair Tonic** 

A Dissertation Submitted To

Savitribai Phule Pune University, Pune

In Partial Fulfillment of Requirements for the Award of

**Degree of** 

**BACHELOR OF PHARMACY** 

BY

Ashlesha sunil kapadane Pooja Bhimashankar Mitkar

Akshada Padmakar Desale

Guide

Mr.Rakesh Shelke



BHUJBAL KNOWLEDGE CITY MET' S INSTITUTE OF PHARMACY ADGAON, NASHIK-422 003 2021-2022

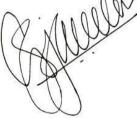


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Place: Nashik

Date: 30/05/2022



Dr. S. J. Kshirsagar

Principal

PRINCIPAL MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, NASHIK-422 003.



This is to certify that the research work presented in this dissertation entitled, "Development of Herbal Hair Tonic"" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 by Mr/Ms/Mrs Ashlesha .sunil kapadane, Pooja bhimashankar mitkar, Akshada padmakar desale, , under the guidance and supervision of Mr.Rakesh Shelke sir. This dissertation is now ready for

examination.



Place: Nashik

Date:30/05/2022

Name of the Guide Guide ALMOND UNDER EYE GEL

A Dissertation Submitted To Savitribai Phule Pune University, Pune In Partial Fulfillment of Requirements for the Award of Degree of

**BACHELOR OF PHARMACY** 

BY

AYUSH NATHWANI ASHUTOSH R. MAHATME HIMANSHU BARVE

SHUBHAM KOTWAL

**RISHIKESH PATIL** 

Guide

**DR. MRS. NEELAM DASHPUTRE** 



BHUJBAL KNOWLEDGE CITY MET'S INSTITUTE OF PHARMACY ADGAON, NASHIK-422 003 2021-2022



This is to certify that the research work presented in this dissertation entitled, "ALMOND UNDER EYE GEL" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 by Ayush H. Nathwani, Ashutosh R. Mahatme, Himanshu P. Barve, Shubham Y. Kotwal, Rishikesh K. Patil under the guidance and supervision of Dr. Mrs. Neelam Dashputre.

This dissertation is now ready for examination.

Principal

Dr. S. J. Kshirsagar

Frincipel MET's Institute Of Pharmacy Adgeon.Neshik-3

Place: **Nashik** Date:



This is to certify that the research work presented in this dissertation entitled, "ALMOND UNDER EYE GEL" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 by Ayush H. Nathwani, Ashutosh R. Mahatme, Himanshu P. Barve, Shubham Y. Kotwal, Rishikesh K. Patil, under the guidance and supervision of Dr. Mrs. Neelam Dashputre.

This dissertation is now ready for examination.

Place: **Nashik** Date:

Dr. Mrs. Neelam Dashputre Guide



This is to certify that the research work presented in this dissertation entitled, "Title" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 by Mr. Asole Rahul Kiran, Mr. Mahajan Sahil Manish, Ms. Sujgure Akanksha Dattatray Ms. Vyavahare Maheshwari Dilip, Ms. Yeole Gayatri Balkrishna, under the guidance and supervision of Dr.S.P.Kakad

This dissertation is now ready for examination.

Dr. S. P. Kakad

Guide

Date: 30/05/2022

Place: Nashik



This is to certify that the research work presented in this dissertation entitled, "Herbal Beard Spray" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 by Mr. Asole Rahul Kiran, Mr. Mahajan Sahil Manish, Ms. Sujgure Akanksha Dattatray, Ms. Vyavahare Maheshwari Dilip, Ms. Yeole Gayatri Balkrishna under the guidance and supervision of Dr. S. P. Kakad

This dissertation is now ready for examination.

#### Dr. S. J. Kshirsagar PRINCIPAL MET s institute of Pharmacy Bhujbal Knowledge City Adgaon NASHIK 422 003

Dr. S. J. Kshirsagar

#### Principal

Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422 003

Place: Nashik

Date: 30/05/2022



This is to certify that the research work presented in this dissertation entitled, **"Formulation and development of herbal face scrub"** submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of **MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003** during the academic year 2021-2022 by **Ms. Bagul Mayuri karbhari, Barve Ravina Valu, Deshmukh Dhanshri Hemant**, under the guidance and supervision of **Dr. Sunita Surse.** 

This dissertation is now ready for examination.



Place: Nashik Date: 24-05-22

Dr. S. J. Kstlirsagar Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422 003



This is to certify that the research work presented in this dissertation entitled, **"Formulation and development of herbal face scrub"** submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of **MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003** during the academic year 2021-2022 by Ms. Bagul Mayuri karbhari, Barve Ravina Valu, Deshmukh Dhanshri Hemant, under the guidance and supervision of **Dr. Sunita Surse.** 

This dissertation is now ready for examination.



Aul 2415/22

Dr. Sunita Surse. (Guide)

Place -Nashik

Date- 24-05-22



# DECLARATION

I hereby declare that the dissertation entitled "Formulation and development of herbal face scrub" is based on the work carried out by me in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 under the guidance and supervision of Dr. Sunita Surse.

Place: Nashik Date: 24-05-22



Name of the student Ms. Barve Ravina Valu, Ebale Deshmukh Dhanshri Hemant, Somuch Bagul Mayuri karbhari.



This is to certify that the research work presented in this dissertation entitled, "Development, Validation and Stability Indicating Method of B-receptor agonist drug using Forced Degradation Study" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University. Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 by Ms. Neha R. Mali, Mr. Pramod B. Kutke, Mr. Prasad D. Rayte, Mr. Sumeet D. Kuyate, Mr. Sidhant V. Byas under the guidance and supervision of Mr. Rohan S. Ahire.

This dissertation is now ready for examination.



Place: Nashik Date: 25/5 2022

Dr. S. J. Kshirsagar

Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422 003 PRINCIPAL MET's Institute of Pharmacy Adgaon, Nashik



This is to certify that the research work presented in this dissertation entitled, "Development, Validation and Stability Indicating Method of B-receptor agonist drug using Forced Degradation Study" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 by Ms. Neha R. Mali, Mr. Pramod B. Kutke, Mr. Sumeet D. Kuyate, Mr. Prasad D. Rayte, Mr. Sidhant V. Byas, under the guidance and supervision of Mr. Rohan S. Ahire.

This dissertation is now ready for examination.



S. Ahire

Mr. Rohan S. Ahire

**UG Guide** 

Place: Nashik

Date: 25/5/2022

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Place: Nashik

Date: 25/5/2022

Ms. Neha R. Mali Mr. Pramod B. Kutke Mr. Sumeet D. Kuyate Mr. Prasad D. Rayte Mr. Sidhant V. Byas



This is to certify that the research work presented in this dissertation entitled. "Formulation and Development of Lip Balm from Beta Vulgaris(Beet Root)" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute Of Pharmacy, Bhujbal knowledge city, Adgaon, Nashik 422003 during the academic year 2021-2022 by Mr.Pranav Chinchole ,Mr.Tejas Ghumare, Mr.Sanket Gite, Mr.Sahil Sawale, Mr. Shivam Taralkar, under the guidance and supervision of Mr.Abhish B. Jadhav

This dissertation is now ready for examination.

Place: **Nashik** Date: 25/5/22

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Place: **Nashik** Date: 2-5/5/22

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Mr. Abhish B. Jadhav Project Guide



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MET's Institute of Pharmacy, Bhujbal Knowledge City, Nashik



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Mr. Abhish B. Jadhav Project Guide

MET's Institute of Pharmacy, Bhujbal Knowledge City, Nashik

# FORMULATION AND EVALUATION OF DARKNESS REMOVAL POWDER A Dissertation Submitted To

Savitribai Phule Pune University, Pune

In Partial Fulfillment of Requirements for the Award of

**Degree** of

## **BACHELOR OF PHARMACY**

BY

Gauri Santosh Badgujar, Samiksha Vijay Bhagat, Sakshi Pravil Bhamare, Poonam Vijay Chate, Sukanya Vilas Chavanke.

> Guide Mr. Rahul R. Sable



BHUJBAL KNOWLEDGE CITY MET'S INSTITUTE OF PHARMACY ADGAON, NASHIK-422 003 2021-2021



This is to certify that the research work presented in this dissertation entitled, "Formulation and evaluation of darkness removal powder" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 by Ms. Gauri Santosh Badgujar, Samiksha Vijay Bhagat, Sakshi Pravil Bhamare, Poonam Vijay Chate, Sukanya Vilas Chavanke. under the guidance and supervision of Mr. Rahul Sable sir.

This dissertation is now ready for examination.

Place: Nashik

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Date: 25 05 2022

Dr. S. J. Kshirsagar

Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422 003



PRINCIPAL MET's Institute of Pharmacy Adgaon, Nashik-3.



# DECLARATION

1 hereby declare that the dissertation entitled "Formulation and evaluation of darkness removal powder" is based on the work carried out by me in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 under the guidance and supervision of Guide.

Place: Nashik

2

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Date: 25 05 2022

Gauri Santosh Badgujar, Samiksha Vijay Bhagat, Sakshi Pravil Bhamare, Poonam Vijay Chate, Sukanya Vilas Chavanke.



This is to certify that the research work presented in this dissertation entitled, "Formulation and evaluation of darkness removal powder" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 by Ms. Gauri Santosh Badgujar, Samiksha Vijay Bhagat, Sakshi Pravil Bhamare, Poonam Vijay Chate, Sukanya Vilas Chavanke. Under the guidance and supervision of Mr. Rahul R. Sable.

This dissertation is now ready for examination.

Mr. Rahul Sable

Guide



Place: Nashik

Date 25 05 2022

# Acknowledgments

The authors are thankful to **MET's Institute of Pharmacy**, **Adgaon**, **Nashik** for providing sample, for providing necessary facilities, for providing laboratory to carry out this work and study.

We take this opportunity to express our profound and deep regards to our guide Mr. Rahul R. Sable, MET's Institute of pharmacy, for his exemplary guidance, monitoring and constant encouragement throughout the course of this project. The blessing, help and guidance given by him time to time shall carry us a long way in the journey of life on which we are about to embark.

Place: Nashik Date: 25 05 2022 Gauri Santosh Badgujar Samiksha Vijay Bhagat Sakshi Pravil Bhamare Poonam Vijay Chate Sukanya Vilas Chavanke

# FORMULATION AND EVALUATION OF DARKNESS REMOVAL POWDER A Dissertation Submitted To

Savitribai Phule Pune University, Pune

In Partial Fulfillment of Requirements for the Award of

**Degree** of

## **BACHELOR OF PHARMACY**

BY

Gauri Santosh Badgujar, Samiksha Vijay Bhagat, Sakshi Pravil Bhamare, Poonam Vijay Chate, Sukanya Vilas Chavanke.

> Guide Mr. Rahul R. Sable



BHUJBAL KNOWLEDGE CITY MET'S INSTITUTE OF PHARMACY ADGAON, NASHIK-422 003 2021-2021



This is to certify that the research work presented in this dissertation entitled, "Formulation and evaluation of darkness removal powder" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 by Ms. Gauri Santosh Badgujar, Samiksha Vijay Bhagat, Sakshi Pravil Bhamare, Poonam Vijay Chate, Sukanya Vilas Chavanke. under the guidance and supervision of Mr. Rahul Sable sir.

This dissertation is now ready for examination.

Place: Nashik

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Date: 25 05 2022

Dr. S. J. Kshirsagar

Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422 003



PRINCIPAL MET's Institute of Pharmacy Adgaon, Nashik-3.



# DECLARATION

1 hereby declare that the dissertation entitled "Formulation and evaluation of darkness removal powder" is based on the work carried out by me in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 under the guidance and supervision of Guide.

Place: Nashik

2

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Date: 25 05 2022

Gauri Santosh Badgujar, Samiksha Vijay Bhagat, Sakshi Pravil Bhamare, Poonam Vijay Chate, Sukanya Vilas Chavanke.



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This dissertation is now ready for examination.

Mr. Rahul Sable

Guide



Place: Nashik

Date 25 05 2022

# Acknowledgments

The authors are thankful to **MET's Institute of Pharmacy**, **Adgaon**, **Nashik** for providing sample, for providing necessary facilities, for providing laboratory to carry out this work and study.

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Place: Nashik Date: 25 05 2022 Gauri Santosh Badgujar Samiksha Vijay Bhagat Sakshi Pravil Bhamare Poonam Vijay Chate Sukanya Vilas Chavanke



This is to certify that the research work presented in this dissertation entitled, "A survey on various factors related to customer's choice of toothpaste in Nashik population and formulation and development of SLS free toothpaste" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 by Ms.Rutuja Lokhande, Mr.Nikhil Pathade, under the guidance and supervision of Dr. Nilima A. Thombre.

This dissertation is now ready for examination.

Place: Nashik Date: 23/5/2022



Dr. Nilima A. Thombre

Guide

# FORMULATION AND EVALUATION OF DARKNESS REMOVAL POWDER A Dissertation Submitted To

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> Guide Mr. Rahul R. Sable



BHUJBAL KNOWLEDGE CITY MET'S INSTITUTE OF PHARMACY ADGAON, NASHIK-422 003 2021-2021



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Place: Nashik

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Dr. S. J. Kshirsagar

Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422 003



PRINCIPAL MET's Institute of Pharmacy Adgaon, Nashik-3.



# DECLARATION

1 hereby declare that the dissertation entitled "Formulation and evaluation of darkness removal powder" is based on the work carried out by me in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 under the guidance and supervision of Guide.

Place: Nashik

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Date: 25 05 2022

Gauri Santosh Badgujar, Samiksha Vijay Bhagat, Sakshi Pravil Bhamare, Poonam Vijay Chate, Sukanya Vilas Chavanke.



This is to certify that the research work presented in this dissertation entitled, "Formulation and evaluation of darkness removal powder" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 by Ms. Gauri Santosh Badgujar, Samiksha Vijay Bhagat, Sakshi Pravil Bhamare, Poonam Vijay Chate, Sukanya Vilas Chavanke. Under the guidance and supervision of Mr. Rahul R. Sable.

This dissertation is now ready for examination.

Mr. Rahul Sable

Guide



Place: Nashik

Date 25 05 2022

# Acknowledgments

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We take this opportunity to express our profound and deep regards to our guide Mr. Rahul R. Sable, MET's Institute of pharmacy, for his exemplary guidance, monitoring and constant encouragement throughout the course of this project. The blessing, help and guidance given by him time to time shall carry us a long way in the journey of life on which we are about to embark.

Place: Nashik Date: 25 05 2022 Gauri Santosh Badgujar Samiksha Vijay Bhagat Sakshi Pravil Bhamare Poonam Vijay Chate Sukanya Vilas Chavanke



This is to certify that the research work presented in this dissertation entitled, **"Formulation and Evalution Of Poly-herbal Hair Conditioner "** submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of **MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003** during the academic year 2021-2022 by **Ms. Dawange Komal Bhausaheb, Kedare Pooja Yashwant** under the guidance and supervision of **Dr. Sunita Surse.** 

This dissertation is now ready for examination.

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Dr. S. J. Kshirsagar

Principal Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422 003

Place: Nashik Date: 27/5/22



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This dissertation is now ready for examination.

Dr. Sunita Surse. (Guide)

Place -Nashik Date- 27/5/22



## DECLARATION

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Place: Nashik Date:

Name of the student Ms. Dawange komal Bhausaheb. Ms. Kedare Pooja Yashwant.



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This dissertation is now ready for examination.

Dr. S. P. Kakad

Guide

Date: 30/05/2022

Place: Nashik



This is to certify that the research work presented in this dissertation entitled, "Herbal Beard Spray" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 by Mr. Asole Rahul Kiran, Mr. Mahajan Sahil Manish, Ms. Sujgure Akanksha Dattatray, Ms. Vyavahare Maheshwari Dilip, Ms. Yeole Gayatri Balkrishna under the guidance and supervision of Dr. S. P. Kakad

This dissertation is now ready for examination.

#### Dr. S. J. Kshirsagar PRINCIPAL MET s institute of Pharmacy Bhujbal Knowledge City Adgaon NASHIK 422 003

Dr. S. J. Kshirsagar

### Principal

Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422 003

Place: Nashik

Date: 30/05/2022



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Dr. S. P. Kakad

Guide

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This dissertation is now ready for examination.

#### Dr. S. J. Kshirsagar PRINCIPAL MET s institute of Pharmacy Bhujbal Knowledge City Adgaon NASHIK 422 003

Dr. S. J. Kshirsagar

### Principal

Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422 003

Place: Nashik

Date: 30/05/2022



This is to certify that the research work presented in this dissertation entitled, "Capsicum and Garlic ointment" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 by Ms Khule Snehal Changdev, Ms Choursiya Kajal Ashwin, Ms Nikam Samruddhi Sanjay ,Ms Chavan Gayatri Vishwas, Ms Jadhav Sakshi Dilip, under the guidance and supervision of Dr Pavan Udavant. This dissertation is now ready for examination.

ADGAON

ASHIK

Place: Nashik

Date: 2415202

Dr Payan Udavant

Guide



This is to certify that the research work presented in this dissertation entitled, "Title" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 by Mr. Asole Rahul Kiran, Mr. Mahajan Sahil Manish, Ms. Sujgure Akanksha Dattatray Ms. Vyavahare Maheshwari Dilip, Ms. Yeole Gayatri Balkrishna, under the guidance and supervision of Dr.S.P.Kakad

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Dr. S. P. Kakad

Guide

Date: 30/05/2022

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This dissertation is now ready for examination.

#### Dr. S. J. Kshirsagar PRINCIPAL MET s institute of Pharmacy Bhujbal Knowledge City Adgaon NASHIK 422 003

Dr. S. J. Kshirsagar

### Principal

Bhujbal Knowledge City MET's Institute of Pharmacy, Adgaon, Nashik- 422 003

Place: Nashik

Date: 30/05/2022

ALMOND UNDER EYE GEL

A Dissertation Submitted To Savitribai Phule Pune University, Pune In Partial Fulfillment of Requirements for the Award of Degree of

**BACHELOR OF PHARMACY** 

BY

AYUSH NATHWANI ASHUTOSH R. MAHATME HIMANSHU BARVE

SHUBHAM KOTWAL

**RISHIKESH PATIL** 

Guide

**DR. MRS. NEELAM DASHPUTRE** 



BHUJBAL KNOWLEDGE CITY MET'S INSTITUTE OF PHARMACY ADGAON, NASHIK-422 003 2021-2022



This is to certify that the research work presented in this dissertation entitled, "ALMOND UNDER EYE GEL" submitted in the partial fulfillment of the requirement for the degree of Bachelor of Pharmacy, Savitribai Phule Pune University, Pune was carried out in the laboratories of MET's Institute of Pharmacy, Bhujbal Knowledge City, Adgaon, Nashik 422003 during the academic year 2021-2022 by Ayush H. Nathwani, Ashutosh R. Mahatme, Himanshu P. Barve, Shubham Y. Kotwal, Rishikesh K. Patil under the guidance and supervision of Dr. Mrs. Neelam Dashputre.

This dissertation is now ready for examination.

Principal

Dr. S. J. Kshirsagar

Frincipel MET's Institute Of Pharmacy Adgeon.Neshik-3

Place: **Nashik** Date:



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This dissertation is now ready for examination.

Place: **Nashik** Date:

Dr. Mrs. Neelam Dashputre Guide