# SYNTHESIS, CHARACTERIZATION, INSILICO PREDICTION AND BIOLOGICAL ACTIVITY OF SOME 2, 4, 6 TRI SUBSTITUTED PYRIMIDINE DERIVATIVES

#### **A THESIS**

Submitted To



### JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR In partial fulfillment of the requirements for the award of the degree of

#### MASTER OF PHARMACY

In

### PHARMACEUTICAL CHEMISTRY

Submitted By

B. SWAPNA

B.Pharm.,

Regd. NO. 22M71S0201

Under the guidance of

Y.PRADEEP KUMAR

M. Pharm, (Ph. D)

Professor & Head

Department of Pharmaceutical chemistry



## ANNAMACHARYA COLLEGE OF PHARMACY (Autonomous)

New Boyanapalli, Rajampet, Annamayya Dist. - 516126, A.P., India.

Approved by PCI, AICTE, New Delhi, accredited by NAAC, Bangalore with an "A" Grade.

JUNE-2024







## DEPARTMENT OF PHARMACEUTICAL CHEMISTRY ANNACHARYA COLLEGE OF PHARMACY

Sponsored by ANNAMACHARYA EDUCATIONAL TRUST (Regd. 135/IV/97)

Accredited by NAAC with 'A' Grade, Bangalore, Accredited by NBA (UG Programme),

New Delhi Recognized u/s 2(f) & 12(B) of the UGC Act, 1956, New Delhi, Recognized ResearchCenter, JNTUA, Anantapur

#### CERTIFICATE

This is to certify that the dissertation work entitled "SYNTHESIS, CHARACTERIZATION, INSILICO PREDICTION AND BIOLOGICAL ACTIVITY OF SOME 2, 4, 6 TRI SUBSTITUTED PYRIMIDINE DERIVATIVES" is a bonifide research work done by Ms.B.SWAPNA, Reg.NO: 22M71S0201 in partial fulfillment of the requirement for the award of the degree of MASTER OF PHARMACY in Department of Pharmaceutical chemistry. The research work was carried out in Annamacharya College of Pharmacy and submitted to Jawaharlal Nehru Technological University, Anantapur, under my supervision and guidance during the academic year 2023 – 2024. The results embodied in this dissertation have not been submitted to any other University or Institute for the award of any degree or diploma.

RESEARCH SUPERVISOR

Y. Pradeep Kumar

M. Pharm, (Ph. D)

Associate Professor

Department of Pharmaceutical chemistry

ANCP, Rajampet

a voice examination held on: 02/07/2014

Examiner 1

External Examiner

New Boyanapa.ii
Pin 616 126
Rojanipot

Examiner

Internal Examiner





## ANNAMACHARY COLLEGE OF PHARMACY

Sponsored by ANNAMACHARYA EDUCATIONAL TRUST (Regd. 135/IV/97)

Accredited by NAAC with 'A' Grade, Bangalore, Accredited by NBA (UG Programme), New Delhi Recognized u/s 2(f) & 12(B) of the UGC Act, 1956, New Delhi, Recognized Research Center, JNTUA, Anantapuram

#### CERTIFICATE

dissertation work entitled certify that the This CHARACTERIZATION, INSILICO PREDICTION AND BIOLOGICAL ACTIVITY OF SOME 2, 4, 6 TRI SUBSTITUTED PYRIMIDINE DERIVATIVES" that is being submitted by Ms. B. SWAPNA, Reg.NO: 22M71S0201, in partial fulfillment of the requirement for the award of degree of MASTER OF PHARMACY in Department of PHARMACEUTICAL CHEMISTRY, to Jawaharlal Nehru Technological University Anantapur, is a record of bonifide research work done by her in Annamacharya College of Pharmacy, Rajampet, and under the supervision and guidance of Y.PRADEEP KUMAR, M.Pharm, (Ph.D) Professor & Head, Department of Pharmaceutical chemistry, ANCP, during the academic year 2023-2024.

> PRINCIPAL Dr. D. SWARNALATHA

M. Pharm., Ph.D., F.I.C., FAGE., FICCP, MISTE.,

PROFESSOR & PRINCIPAL

Thallapaka Panchayat, New Boyanapalli (Post), Rajampet - 516126, Annamayya District. A.P., India

Tel: 08565-251865 (Principal), 251867 (Office), 251868 (Exam Cell) Mobile: +91 9848998651, +91 9912342118 E-mail



**A THESIS** 

Submitted To



#### JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR

In partial fulfillment of the requirements for the award of the degree of

#### **MASTER OF PHARMACY**

In

#### **PHARMACEUTICS**

Submitted By

B. POOJA

B.Pharm.,

Regd. NO. 22M71S0301

Under the guidance of

#### Dr. P. DWARAKANADHA REDDY

M. Pharm, Ph. D, FIC, FAGE, MISTE

Professor & Head

Department of Pharmaceutics



#### ANNAMACHARYA COLLEGE OF PHARMACY(Autonomous)

New Boyanapalli, Rajampet, Annamayya Dist. - 516126, A.P., India.

Approved by PCI, AICTE, New Delhi, Accredited by NAAC, Bangalore with an "A" Grade.

**JUNE-2024** 





#### ANNACHARYA COLLEGE OF PHARMACY

Sponsored by ANNAMACHARYA EDUCATIONAL TRUST (Regd. 135/IV/97)

Accredited by NAAC with 'A' Grade, Bangalore, Accredited by NBA (UG Programme),

New Delhi Recognized u/s 2(f) & 12(B) of the UGC Act, 1956, New Delhi, Recognized Research Center,

JNTUA, Anantapur

#### CERTIFICATE

This is to certify that the dissertation work entitled "Bilosomes a Novel Approach for Drug Delivery System to Treat Hypertension" is a bonifide research work done by Ms.B.POOJA, Reg.NO: 22M71S0301 in partial fulfillment of the requirement for the award of the degree of MASTER OF PHARMACY in Department of PHARMACEUTICS. The research work was carried out in Annamacharya College of Pharmacy and submitted to Jawaharlal Nehru Technological University, Anantapur, under my supervision and guidance during the academic year 2023 – 2024. The results embodied in this dissertation have not been submitted to any other University or Institute for the award of any degree or diploma.

RESEARCH SUPERVISOR

Dr. P. DWARAKANADH REDDY,

M. Pharm, Ph. D, FIC, FAGE, MISTE

Professor & Head

Department of Pharmaceutics

ANCP, Rajampet

Viva voice examination held on: 02/07/2024

Examiner 1

External Examiner

New Boyanapalli Pin: 516 126 Rajampet

OLLEGA

Examiner 2

Internal Examiner







#### ANNAMACHARY COLLEGE OF PHARMACY

Sponsored by ANNAMACHARYA EDUCATIONAL TRUST (Regd. 135/IV/97)

Accredited by NAAC with 'A' Grade, Bangalore, Accredited by NBA (UG Programme), New Delhi Recognized u/s 2(f) & 12(B) of the UGC Act, 1956, New Delhi, Recognized Research Center, JNTUA, Anantapuram

Dr. D. Swarnalatha M. Pharm., Ph.D., F.I.C., FAGE., FICCP, MISTE., PRINCIPAL

#### **CERTIFICATE**

This is certify that the dissertation work entitled "BILOSOMES - A NOVEL **APPROACH** FOR DRUG DELIVERY SYSTEM TO TREAT HYPERTENSION" that is being submitted by Ms.B.POOJA, Reg.No: 22M71S0301, in partial fulfillment of the requirement for the award of degree of MASTER OF PHARMACY in Department of PHARMACEUTICS, to Jawaharlal Nehru Technological University Anantapur, is a record of bonifide research work done by her in Annamacharya College of Pharmacy, Rajampet, and under the supervision and guidance of Dr. P. DWARAKANADHA REDDY, M.Pharm, Ph.D, FIC, FAGE, MISTE Professor& Head, Department of Pharmaceutics, ANCP, during the academic year 2023-2024.

PRINCIPAL
Dr. D. SWARNALATHA
M. Pharm., Ph.D., F.I.C., FAGE., FICCP, MISTE.,

PROFESSOR & PRINCIPAL



## ANALYTICAL METHOD DEVELOPMENT AND VERIFICATION REPORT FOR RELATED COMPOUNDS OF GALANTAMINE HBR BY HPLC

**A THESIS** 

Submitted to



#### JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR

in partial fulfillment of the requirements for the award of the degree of

#### **MASTER OF PHARMACY**

ın

#### PHARMACEUTICAL QUALITY ASSURANCE

Submitted by
Mr. G.YASHWANTH PAVAN

B.Pharm

Reg.No.: 22M71S0402 Dept. of PQA

Under the guidance of
Mr. M. Madhu
M.Pharm.,(Ph.D.)
Associate Professor



DEPT. OF PHARMACEUTICAL QUALITY ASSURANCE

#### **ANNAMACHARYA COLLEGE OF PHARMACY**

New Boyanapalli, Rajampet, Annamayya Dist. - 516126, A.P., India.

JUNE - 2024



## DEPT. OF PHARMACEUTICAL ANALYSIS ANNAMACHARYA COLLEGE OF PHARMACY

(Autonomous)

New Boyanapalli, Rajampet, Y.S.R. Dist. - 516126, A.P., India.

#### CERTIFICATE

This is to certify that the dissertation work entitled "ANALYTICAL METHOD DEVELOPMENT AND VERIFICATION REPORT FOR RELATED COMPOUNDS OF GALANTAMINE HBR BY HPLC" is a bonafide research work done by Mr. G.YASHWANTH PAVAN [Reg.No. 22M71S0402] in partial fulfilment of the requirement for the award of degree of Master of Pharmacy. The research work was carried out in Annamacharya College of Pharmacy and submitted to Jawaharlal Nehru Technological University Anantapur, under the supervision and guidance of Mr. M. MADHU, M. Pharm.,(Ph.D) during the academic year 2024-2025.

The results embodied in this dissertation have not been submitted to any other University or Institute for the award of any degree.

Principal Dr. D. Swarnalatha M. Pharm., Ph.D. Research Guide
M. Madhu M.Pharm (Ph.D)
Asso. Professor,

Viva-voce examination held on <u>oa/o1/2021</u>

Internal Examiner

New Boyanapa Paris 18 145 Paris

**External Examiner** 

ANNAMACHARYA COLLEGE OF PHARMACY

Sponsored by ANNAMACHARYA EDUCATIONAL TRUST (Regd. 135/IV/97)
Approved by AICTE & PCI, New Delhi, Affiliated to JNTUA, Ananthapuramu,
edited by NAAC with 'A' Grade, Bangalore, Accredited by NRA (I/C Programme). New Delhi

Accredited by NAAC with 'A' Grade, Bangalore, Accredited by NBA (UG Programme), New Delhi Recognized u/s 2(f) & 12(B) of the UGC Act, 1956, New Delhi, Recognized Research Center, JNTUA, Ananthapuramu,

Dr.D.Swarnalatha M. Pharm., Ph.D., FIC., F.

M. Pharm., Ph.D., FIC., FAGE., FICCP., MISTE.

Principal

#### **CERTIFICATE**

This is to certify that the dissertation work entitled "ANALYTICAL METHOD DEVELOPMENT AND VERIFICATION REPORT FOR RELATED COMPOUNDS OF GALANTAMINE HBR BY HPLC is a bonafide research work done by Mr. G.YASHWANTH PAVAN [Reg.No. 22M71S0402] in partial fulfilment of the requirement for the award of degree of Master of Pharmacy. The research work was carried out in Annamacharya College of Pharmacy and submitted to Jawaharlal Nehru Technological University Anantapur, under the supervision and guidance of Mr. M. MADHU, M. Pharm., (Ph.D.) during the academic year 2024-2025.

Dr. D. SWARNALATHA

Professor & Principal

ANNAMACHARYA COLLEGE OF PHARMACY NEW BOYANAPALLI - 516 126 RAJAMPET, ANNAMAYYA DISL A.P

# RP-HPLC METHOD DEVELOPMENT AND VALIDATION FOR RELATED SUBSTANCE PROFILING OF DOXAZOSIN MESYLATE IN TABLET DOSAGE FORM

#### **A THESIS**

Submitted to



## JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR

in partial fulfillment of the requirements for the award of the degree of

#### **MASTER OF PHARMACY**

in

## PHARMACEUTICAL QUALITY ASSURANCE

Submitted by

#### **SHAIK AFIYA PARVEEN**

Reg. No. 22M71S0401

**Dept. of Pharmaceutical Quality Assurance** 

Under the quidance of

#### Mr. E. GIREESH KUMAR

M.Pharm., (Ph.D.)

**Associate Professor** 

**Dept. of Pharmaceutical Quality Assurance** 



# DEPT. OF PHARMACEUTICAL QUALITY ASSURANCE ANNAMACHARYA COLLEGE OF PHARMACY

New Boyanapalli, Rajampet, Annamayya Dist. - 516126, A.P., India.

Affiliated to JNTUA, Ananthapuramu, Approved by PCI, New Delhi, Accredited by NAAC, Bangalore



### DEPT. OF PHARMACEUTICAL QUALITY ASSURANCE ANNAMACHARYA COLLEGE OF PHARMACY

New Boyanapalli, Rajampet, Annamayya Dist. - 516126, A.P., India.

#### CERTIFICATE

This is to certify that the dissertation work entitled "RP-HPLC Method Development and Validation for Related Substance Profiling of Doxazosin Mesylate in Tablet dosage form" is a bonafide research work done by SHAIK AFIYA PARVEEN (22M71S0401) in partial fulfillment of the requirement for the award of degree of Master of Pharmacy in Pharmaceutical Quality Assurance.

The research work was carried out in Cohance Lifesciences, Hyderabad, Telangana and submitted to Jawaharlal Nehru Technological University Anantapur, under my supervision and guidance during the academic year 2023-2024.

The results embodied in this dissertation have not been submitted to any other University or Institute for the award of any degree or diploma.

> Mr. E. GIREESH KUMAR M.Pharm., (Ph.D.)

Associate Professor Dept. of Pharm. Quality Assurance

ANCP, Rajampet

EGE New Boyanapalli pin: 516 126

Project Viva-Voce Examination conducted on ... 02 07 2029



#### ANNAMACHARYA COLLEGE OF PHARMACY

New Boyanapalli, Rajampet, Annamayya Dist. - 516126, A.P., India.

Dr. D. Swarnalatha M.Pharm., Ph.D., FIC, FAGE, MISTE Principal

#### **CERTIFICATE**

This is to certify that the dissertation work entitled "RP-HPLC Method Development and Validation for Related Substance Profiling of Doxazosin Mesylate in Tablet dosage form" that is being submitted by SHAIK AFIYA PARVEEN (22M71S0401) in partial fulfillment of the requirement for the award of degree of Master of Pharmacy in Pharmaceutical Quality Assurance, to Jawaharlal Nehru Technological University Anantapur, is a record of bonafide research work done by her in Cohance Lifesciences, Hyderabad, Telangana under supervision and guidance of Mr. E. Gireesh Kumar, Associate Professor, Dept. of Pharmaceutical Quality Assurance, during the academic year 2023-2024.

PRINCIPAL
PRINCIPAL
ANNAMACHARYA COLLEGE OF PHARMACY
NEW BOYANAPALLI - 516 126
RAJAMPET, ANNAMAYYA DIST. A.P