



AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.

3.3.2 Number of books and chapters in edited volumes/books published and papers published in national/ international conference proceedings per

Teacher during the year **2022-2023**

S l. n o	Name of the teacher	Title of the book/ chapters published	Title of the paper	Title of the proceedings of the conference	Name of the conference	National / International	Year of publication	ISBN/ISSN number of the proceeding	Affiliating Institute at the time of publication	Name of the publisher
1	Thatikayala Mahender	Ayurvedic Remedies For The Kidney Diseases	Ayurvedic Remedies For Kidney Stones	-	-	National	2022	978-81-956220-1-6	Avanthi Institute Of Pharmaceutical Sciences	Published by Academic Decipher Press, Mumbai
2	Thatikayala Mahender	Ayurvedic Remedies For Jaundice	Ayurvedic Remedies For Jaundice	-	-	National	2022	978-81-958127-0-7	Avanthi Institute Of Pharmaceutical Sciences	Published by Academic Decipher Press, Mumbai
3	Thatikayala Mahender	Benzimidazole: Pharmacological, Profile	Benzimidazole: Pharmacological, Profile	-	-	International	2022	doi:10.5772/intechopen.95148	Avanthi Institute Of Pharmaceutical Sciences	Published by IntechOpen

AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES



PRINCIPAL
AVANTHI INSTITUTE OF
PHARMACEUTICAL SCIENCES
Gunthapally (V), Abdullapurmet (M),
R.R. Dist., Telangana



AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.

S l. n o	Name of the teacher	Title of the book/ chapters published	Title of the paper	Title of the proceedings of the conference	Name of the conference	National / International	Year of publication	ISBN/ISSN number of the proceeding	Affiliating Institute at the time of publication	Name of the publisher
4	Dr. K. Balaji	-	-	72 –Indian pharmaceutical congress Nagpur	72 –Indian pharmaceutical congress Nagpur	International	2023	-	Avanthi Institute Of Pharmaceutical Sciences	-
5	P V. Pavan kumar	-	Formulation and characterization of phospholipids of mangiferin	One day international conference on new horizons in pharmaceutical, biomedical and biosciences	One day international conference on new horizons in pharmaceutical, biomedical and biosciences	International	2023	-	Avanthi Institute Of Pharmaceutical Sciences	-
6	S.Koti Reddy	-	The quality of services in pharmacy	National conference on pharmacy and pharmaceutical sciences	National conference on pharmacy and pharmaceutical sciences	National	2022	-	Avanthi Institute Of Pharmaceutical Sciences	-

AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES



PRINCIPAL
AVANTHI INSTITUTE OF
PHARMACEUTICAL SCIENCES
Gunthapally (V), Abdullapurmet (M),
R.R. Dist. Telangana.



AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.

S l. n o	Name of the teacher	Title of the book/ chapters published	Title of the paper	Title of the proceedings of the conference	Name of the conference	National / International	Year of publication	ISBN/ISSN number of the proceeding	Affiliating Institute at the time of publication	Name of the publisher
7	Dr.Nihar Ranjan Das	-	Drug Resistance decrease by home medicine	National conference on pharmacy and pharmaceutical sciences	National conference on pharmacy and pharmaceutical sciences	National	2022	-	Avanthi Institute Of Pharmaceutical Sciences	-
8	P.Lavanya	-	3D printing in pharmaceutical industry	National conference on pharmacy and pharmaceutical sciences	National conference on pharmacy and pharmaceutical sciences	National	2022	-	Avanthi Institute Of Pharmaceutical Sciences	-
9	K.Sandhya	-	The quality of Services in pharmacy	National conference on pharmacy and pharmaceutical sciences	National conference on pharmacy and pharmaceutical sciences	National	2022	-	Avanthi Institute Of Pharmaceutical Sciences	-

AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES



PRINCIPAL
AVANTHI INSTITUTE OF
PHARMACEUTICAL SCIENCES
Gunthapally (V), Abdullapurmet (M),
R.R. Dist., Telangana.



AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES

(Approved by PCI, AICTE & Affiliated to JNTUH)

Gunthapally (V), Abdullapurmet (M), R.R. Dist., Near Ramoji Filmcity, Hyderabad - 501 512.

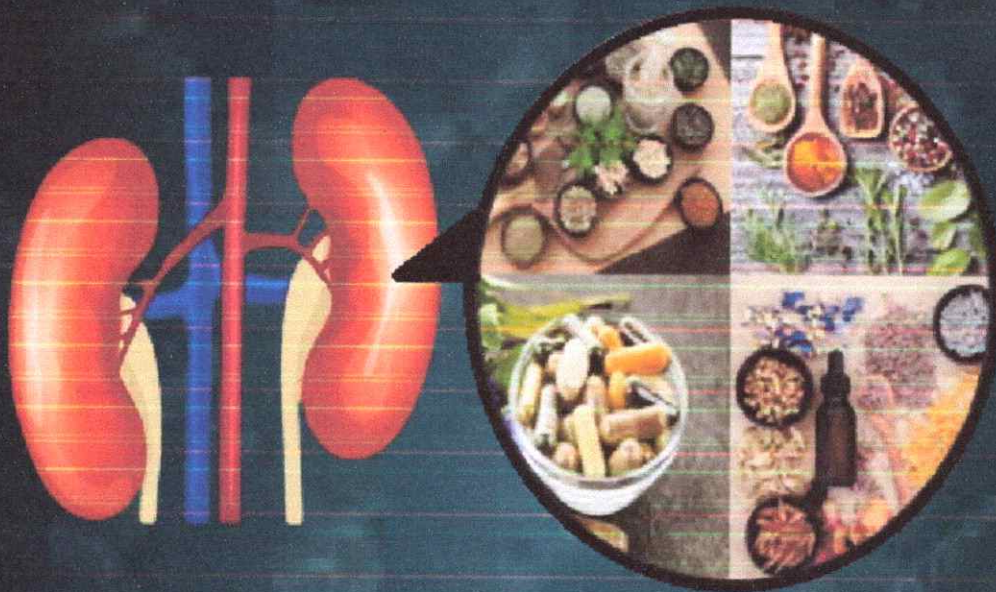
Sl. no	Name of the teacher	Title of the book/chapters published	Title of the paper	Title of the proceedings of the conference	Name of the conference	National / International	Year of publication	ISBN/ISSN number of the proceeding	Affiliating Institute at the time of publication	Name of the publisher
10	P Lavanya	-	Formulation and evaluation of colon specific sulfasalazine loaded microspheres	International conference on Pharma summit 2022: drug discovery and community trial	International conference on Pharma submit 2022: drug discovery and community trial	International	2022	-	Avanthi Institute Of Pharmaceutical Sciences	-
11	A. Sruthi	-	Camera in a pill	National conference on pharmacy and pharmaceutical sciences	National conference on pharmacy and pharmaceutical sciences	National	2022	-	Avanthi Institute Of Pharmaceutical Sciences	-

AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES



PRINCIPAL
AVANTHI INSTITUTE OF
PHARMACEUTICAL SCIENCES
Gunthapally (V), Abdullapurmet (M),
R.R. Dist., Telangana.

AYURVEDIC REMEDIES FOR THE KIDNEY DISEASES



DR. SARIKA PRANAM PATIL

DR. MAYURI GURAV (MORE)

MR. THATIKAYALA MAHENDER

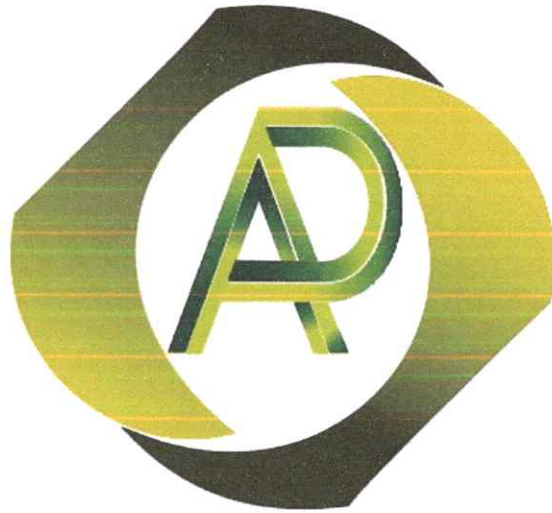
ACADEMIC DECIPHER PRESS

Quality with Simplicity



PRINCIPAL
Avanthi Institute of Pharmaceutical Sciences
Gunthapally (V), Hayath Nagar (M),
Ranga Reddy Dist.

**AYURVEDIC REMEDIES FOR THE
KIDNEY DISEASES**



**ACADEMIC DECIPHER PRESS,
MUMBAI**

PRICE: RS.550/-

ISBN: 978-81-956220-1-6

FIRST EDITION: SEP 2022



A handwritten signature in blue ink, consisting of a series of loops and a long horizontal stroke.

PRINCIPAL

**Gunthapally (V), Hayath Nagar (M),
Ranga Reddy Dist.**

AYURVEDIC REMEDIES FOR THE KIDNEY DISEASES

EDITORS DETAILS



Dr. Sarika Pranam Patil
Assistant Professor,
Dr. Shivajirao Kadam college of
Pharmacy Kasabe Digraj Sangli
Maharashtra India, 416305

Dr. Mayuri Gurav(More)
Assistant Professor,
IVM's Indrayani Institute of
Pharmaceutical Education and
Research, Talegaon Dabhade,
Pune-410507



Mr. Thatikayala Mahender
Assistant Professor,
Avanthi Institute of Pharmaceutical
Sciences, Hayathnagar, Hyderabad,
Rangareddy, Telengana-501512



PRINCIPAL

Avanthi Institute of Pharmaceutical Sciences
Guntur, (V), Hayathnagar (M),
Ranga Reddy Dist.

Published by
Academic Decipher Press, Mumbai
Website: <https://academicdecipher.in/>
WhatsApp No.: 7400253569
Email: admin@academicdecipher.in,
academicdecipher.in@gmail.com

© Copyrights reserved

The text of this publication or any part thereof should not be copied, reduced, used, photocopied or transmitted in any language or stored in any information storage device including but not limited to computer, laptop, CD, pen drive, hard disc, email drive, mobile, etc for distribution or use without prior permission of the publisher, editors and authors. Breach of this condition is liable to legal action.

Edition: Sep 2022

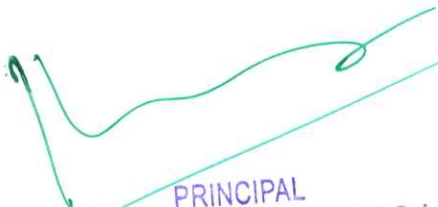
Price: Rs.550/-

ISBN: 978-81-956220-1-6

Every effort has been made to avoid the errors in this publication. In spite of this the errors may have crept in. Any mistake, error or discrepancy so noted and shall be brought to our notice will be taken care in next edition. The publisher take no responsibility with regards to the accuracy of information contained in this book and cannot accept any legal responsibility of any errors or omissions.

Exclusively marketed & distributed by Academic Decipher Press, Mumbai.
For sale in India and abroad.




PRINCIPAL
Ananth Institute of Pharmaceutical Sciences
Gunthapally (V), Hayath Nagar (M),
Ranga Reddy Dist.

CONTENT

SR. NO.	NAME OF CHAPTER	PAGE NO.
1	AYURVEDIC REMEDIES FOR CHRONIC KIDNEY DISEASE M. K. Vijayalakshmi, Dr. R. Srinivasan, Akshaya. T, Aswini. T, Priya Dhaarani. C	1
2	UPDATED REVIEW OF PLANTS FOR THE PREVENTION AND MANAGEMENT OF KIDNEY STONES Dr. A. Ravi Kiran, Dr. B. Madhava Reddy, Ms. K Sai Vineela, Ms. KVS Sushumna, Mr. K. Gourinadh, Mr. D. Rajesh Reddy	9
3	MEDICINAL HERBS IN AYURVEDA FOR PREVENTION AND MANAGEMENT OF ASHMARI Dr. Mahalaxmi Mohan, Dr. R. S. Bhambar, Ms. Kothawade Priti Ashok, Mr. Shekhar Wagh, Ms. Apeksha Patole	24
4	AYURVEDIC REMEDIES OF RENAL STONE Dr. Sarika Patil Mam, Dr. Sidhartha Patil Sir, Miss. Mujawar Shaista Ayyub, Miss. Shailaja Satish Patil, Mr. Prasad Pandurang Yadav	37
5	AYURVEDIC REMEDIES FOR RENAL DISORDERS Gauri Kisan Kale, Shivani Bhalekar, Shravni Paradhi, Neha Konnojiya, DR. Sanjay Arote, Dr. Mayuri Gurav	48
6	A SHORT REVIEW ON NEPHROLITHIASIS TREATMENT THROUGH AYURVEDA Dr. Radhika Bindu, Dr. Abhay Dharamsi, Ms. Ritika Bhagat, Ms. Baishakhee Bishoyi, Ms. Harshita Jaiswal	58
7	AYURVEDA'S HOLISTIC APPROACH TOWARDS NEPHROLITHIASIS Dr. Monita Gide, Ms. Rupali Bhoje, Ms. Vaishnavi Gawade, MS. Riddhi Dudhawade, Ms. Vaishali Karmalkar	64
8	HERBAL SOURCES AS A REMEDY FOR UROLITHIASIS AN OVERVIEW Dr. Yenduri Suvarna, Dr. B. Ramesh, Huma Sulthana, Kotalwar Vaibhav, Shreyas B S	74
9	AYURVEDIC REMEDIES FOR ASHMARI Dr. Norma Rebello, Dr. Savita Tauro, Shubham V Munde, Tresa B Kalathil, Renny J Daniel, Nitin S Ade	102
10	CURRENT UPDATE ON AYURVEDIC REMEDEIS FOR PREVENTION AND MANAGEMENT OF KIDNEY STONE Kiran S. Bhise, Ab Ahesan, Siddiqui Iliyas, Syed Shahed	114
11	AYURVEDIC REMEDIES FOR KIDEY STONES Mr. Thatikayala Mahender, Mr. Errojula Avinash, Mr. Bolla Saiteja, Mr. Muppavaram Shiva, Mr. Kanna Madhu, P. V. Pavankumar	143
12	A REVIEW ON AYURVEDIC REMEDIES FOR PYELONEPHRITIS Dr. Bijal Prajapati, Dr. Abhay Dharamsi, Ms. Archana Rajan Pillai, Ms. Ekta Singh, Mr. Meet A Jayswal, Mr. Preyash Panchal	155




PRINCIPAL
 Avanti Institute of Pharmaceutical Sciences
 Gunthapally (V), Hayath Nagar (M),
 Ranga Reddy Dist.

PREFACE

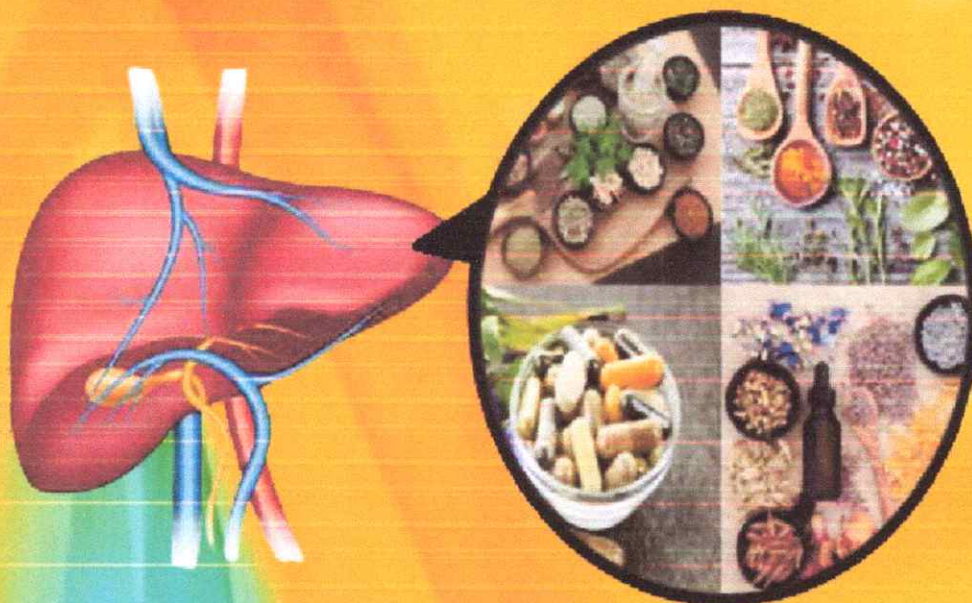
This book is a result of extensive literature survey done by students of pharmacy, and other science fraternity from different colleges all over India. The information in this book is not intended to be a substitute for professional medical advice. Do not use this information to diagnose any disease, also the book should not be used for ayurvedic treatment of any disease. However, the book is published to serve as a guide for people wishing to do research on our indigenous plants which can be used in the treatment of various diseases of kidney.

We are thankful to all the contributors as without their help publishing this book would have not been possible. We wish all our readers knowledgeable and research-oriented reading.




PRINCIPAL
Avanthi Institute of Pharmaceutical Sciences
Gunthapally (V), Hayath Nagar (M),
Ranga Reddy Dist.

AYURVEDIC REMEDIES FOR THE LIVER DISEASES



DR. SNEHA R. SAGAR

MRS. MADHURI SURAJ NALAWADE

MR. OMKAR BHARAT TIPUGADE

ACADEMIC DECIPHER PRESS

Quality with Simplicity



PRINCIPAL
Avanthi Institute of Pharmaceutical Sciences
Ganthapally (V), Hayathi Nagar (M),
Ranga Reddy Dist.

**AYURVEDIC REMEDIES FOR THE
LIVER DISEASES**



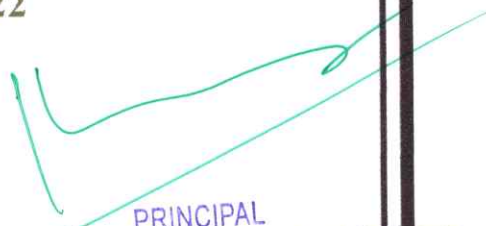
**ACADEMIC DECIPHER PRESS,
MUMBAI**

PRICE: RS.550/-

ISBN: 978-81-958127-0-7

FIRST EDITION: SEP 2022




PRINCIPAL

Aruna Institute of Pharmaceutical Sciences
Gandhinagar, Hayathnagar,
Ranga Reddy Dist.

AYURVEDIC REMEDIES FOR THE LIVER DISEASES

EDITORS DETAILS



Dr. Sneha R. Sagar
Assistant Professor,
L.J. Institute of Pharmacy, LJ
University, Ahmedabad, Gujarat,
India-382210

Mrs. Madhuri Suraj Nalawade
Assistant Professor,
Abhinav Education Society's
College of Pharmacy, Narhe
,Pune-41, Maharashtra ,India.



Mr. Omkar Bharat Tipugade
Assistant Professor,
Genesis Institute of Pharmacy,
Sonyachi Shirol, Tal:
Radhanagari, Dist: Kolhapur
Maharashtra 416212, India.



A handwritten signature in green ink, appearing to be "S. Sagar".

PRINCIPAL
Avanti Institute of Pharmaceutical Sciences
Gunthapalle (V), Hayathnagar (M),
Ranga Reddy Dist.

Published by
Academic Decipher Press, Mumbai
Website: <https://academicdecipher.in/>
WhatsApp No.: 7400253569
Email: admin@academicdecipher.in,
academicdecipher.in@gmail.com

© Copyrights reserved

The text of this publication or any part thereof should not be copied, reduced, used, photocopied or transmitted in any language or stored in any information storage device including but not limited to computer, laptop, CD, pen drive, hard disc, email drive, mobile, etc for distribution or use without prior permission of the publisher, editors and authors. Breach of this condition is liable to legal action.

Edition: Sep 2022

Price: Rs.550/-

ISBN: 978-81-958127-0-7

Every effort has been made to avoid the errors in this publication. In spite of this the errors may have crept in. Any mistake, error or discrepancy so noted and shall be brought to our notice will be taken care in next edition. The publisher take no responsibility with regards to the accuracy of information contained in this book and cannot accept any legal responsibility of any errors or omissions.

Exclusively marketed & distributed by Academic Decipher Press, Mumbai.
For sale in India and abroad.




PRINCIPAL
Avanthi Institute of Pharmaceutical Sciences
Gunthapally (V), Hayathi Nagar (M),
Ranga Reddy Dist.

CONTENT

SR. NO.	NAME OF CHAPTER	PAGE NO.
1	AYURVEDA FOR LIVER CIRRHOSIS - A NATURAL CURE Dr. Misari Patel, Dr. Shreeraj Shah, Bhalani Sweta Alpeshkumar, Aayan Rangwala	1
2	AYURVEDIC REMEDIES FOR HEPATITIS B Dr. Sneha Sagar, Dr. Shreeraj Shah, Ms. Yashvi Mehta, Ms. Keya Thakar, Ms. Pahini Upadhyay, Ms. Shagun Kalolia	11
3	AYURVEDIC REMEDIES FOR HEPATITIS C VIRUS M. K. Vijayalakshmi, Dr. R. Srinivasan, Sowmiya. G, Sakthi. S, Jayashree. D	17
4	FATTY LIVER DISEASE: AN AYURVEDIC APPROACH FOR MANAGEMENT Dipak Siddhanna Gumate, Bilal Jilani Shaikh, Rohan Rajnikant Vakhariya, Dr. Indrayani Damodar Raut	27
5	LIVER CIRRHOSIS: THROUGH THE LENS OF AYURVEDA Dr. Mrs. Urmila Joshi, Dr. Mrs. Swati Patil, Mr. Yash Ganatra, Ms. Niharika Puri, Ms. Komal Pawar, Ms. Jidnya Patil	35
6	AYURVEDIC PERSPECTIVE ON THE MANAGEMENT OF LIVER CIRRHOSIS Prashant Chaturvedi, Abhijeet Puri, Dr. Savita Tauro, Pradnya Desai, Samiksha Mhatre, Pranay Uttekar, Shalini Tiwari	45
7	AYURVEDIC FORMULATION FOR LIVER ILLNESSES Mrs. Vrushali Gokhle, Dr. Savita Tauro, Ms. Mrunal Kumar Patil, Ms. Leena Thakare, Mr. Jatin Prajapat	68
8	LIVER CIRRHOSIS AND AYURVEDA Mr. Pavankumar P. Wankhade, Dr. Niraj Sudhakar Vyawahare, Devika Sunil Jadhav, Ritu Sanjay Chavan, Sanya Sunil Lisboa, Samiksha Suryakant Deokar	80
9	AYURVEDIC REMEDIES ON PRIMARY BILIARY CHOLANGITIS Miss. Shweta Shivaling Bobade, Miss. Komal Pol, Mr. Mahesh Mali, Miss. Vaishnavi P. More, Mrs. Pradnya Jagtap, Mr. Sumit Musale, Dr. Rajashree Chavan	91
10	AYURVEDA - A HOLISTIC AND PROPHYLACTIC APPROACH FOR HEPATOCELLULAR CARCINOMA Mrs. Madhuri Suraj Nalawade, Dr. Trupti A. Tuse, Mr. Laxman Bandgar, Ms. Dhanashree Dorge, Ms. Siya Veer, Ms. Shrutika Jadhav	109
11	A REVIEW OF AYURVEDIC HERBS FOR THE TREATMENT OF NAFLD AND NASH Mr. Sanket Sunil Shirodkar, Ms. Priya Ravindra Jadhav, Dr. Anuradha Majumdar	135
12	HEPATITIS B: A REVIEW OF EFFECTIVE AYURVEDIC REMEDIES Ms. Bin Hawail Manal Saleh, Ms. Karpe Pooja Ashokrao, Dr. S. R. Lahoti, Dr. Abubakar Salam Bawazir	173
13	AYURVEDIC REMEDIES FOR HEPATITIS Mrs. Ch. Rajeshwari, Ms. Injam Thapaswi, Ms. V. Raaga Sindhu, Mr. N. Krishna Chaitanya, Ms. Addula Sanjana. G. Pulla Reddy	184
14	AYURVEDIC REMEDIES FOR JAUNDICE Mr. Thatikayala Mahender, Mr. Aleti Dharma Teja, Mr. Pathuri Pranay, Mr. Kamitikari Arjun, Mr. Nalla Akhil, Mr. P. V. Pavankumar	195
15	A HOLISTIC REVIEW ON HEPATOPROTECTIVE ACTIVITY OF STREBLUS ASPER Seemanta Nayan Das, Priyanka Sarmah, Rinkita Roy, Eric Barla, Pranjit Baruah, Abdul Baquee Ahmed, Shekhar Chandra Borah	202




PRINCIPAL
 Avanti Institute of Pharmaceutical Sciences
 Gunthakota (V), Hayathi Nagar (M),
 Ranga Reddy Dist.

PREFACE

This book is a result of extensive literature survey done by students of pharmacy, and other science fraternity from different colleges all over India. The information in this book is not intended to be a substitute for professional medical advice. Do not use this information to diagnose any disease, also the book should not be used for ayurvedic treatment of any disease. However, the book is published to serve as a guide for people wishing to do research on our indigenous plants which can be used in the treatment of various diseases of liver.

We are thankful to all the contributors as without their help publishing this book would have not been possible. We wish all our readers knowledgeable and research-oriented reading.




PRINCIPAL
Avanthi Institute of Pharmaceutical Sciences
Cantonment (V), Hayath Nagar (M),
Ranga Reddy Dist.

Chapter

Benzimidazole: Pharmacological Profile

*Mahender Thatikayala, Anil Kumar Garige
and Hemalatha Gadegoni*

Abstract

Benzimidazole is a bicyclic heterocyclic aromatic compound in which benzene fused to imidazole moiety. Benzimidazole holds a vital role in the field of medicinal chemistry which possesses wide variety of pharmacological activities like antibacterial, anti cancer, antifungal, antileishmanial, anti tubercular, anti viral and anti malarial respectively, hence the benzimidazole moiety attracting the medicinal chemist to synthesize the different benzimidazole derivatives with wide variety of pharmacological activities. The book chapter mainly discussed the anti cancer, anti HIV, antileishmanial and anti tubercular activities of recently synthesized benzimidazole derivatives.

Keywords: benzimidazole, anti cancer, anti HIV, antileishmanial, anti tubercular

1. Introduction

Benzimidazole is bicyclic heterocyclic aromatic compound in which benzene ring fused to 4 and 5 position of imidazole ring, it contain two nitrogen atoms at 1 and 3 position exhibit both acidic and basic nature called amphoteric nature and exists in two equivalent tautomeric forms, when the hydrogen present at first position nitrogen atom possess acidic nature, when the hydrogen present at third position nitrogen atom possess basic nature (**Figures 1**) [1]. Benzimidazole is a very important important pharmacophore among all the heterocyclic compounds due to its important pharmacological activities like anti-Alzheimer [2], antibacterial [3], anti cancer [4], anti-diabetic [5], antifungal [6], anti HIV [7], anti leishmanial [8], anti inflammatory [9], analgesic [9], anti malarial [10], anti microbial [11] and anti tubercular [12] activity, there are many benzimidazole derivatives are using to treat many diseases, few presently marketing drugs contain benzimidazole moiety are the bezitramide using as an analgesic, ridinilazole sing as antibacterial, the candesartan, mibefradil using as anti-hypertensive drugs, mebendazole, albendazole, thiabendazole, and flubendazole usng as antihelminthics, astemizole, bilastine using as antihistamines, pantoprazole, lansoprazole, esomeprazole, ilaprazole using as proton pump inhibitors, bendamustine, selumetinib, galeterone, pracinostat using as antitumor agents and envirodine, samatasvir, and maribavir using as antiviral agents (**Figures 2**) [13–17].

1



IntechOpen
PRINCIPAL
Avanthi Institute of Pharmaceutical Sciences
Ganthapally (V), Hayath Nagar (M),
Ranga Reddy Dist.

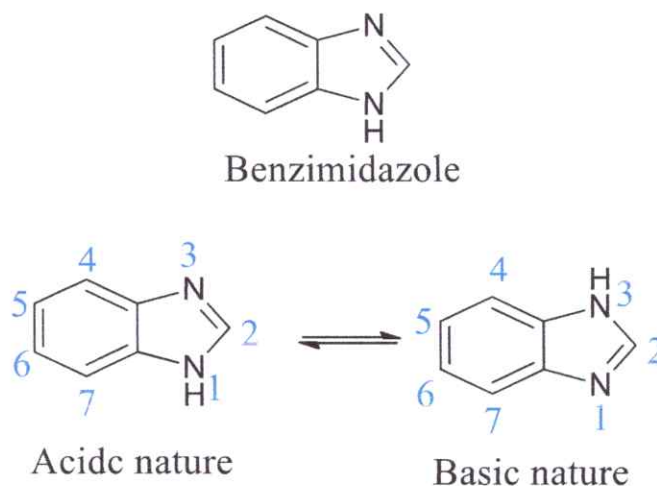


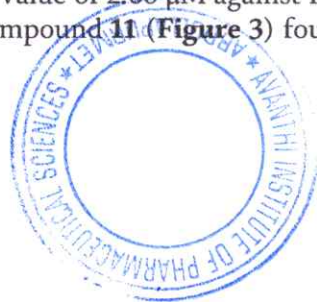
Figure 1.
Chemistry of benzimidazole [1].

2. Pharmacological profile of benzimidazole derivatives

2.1 Anti cancer activity

In the year of 2019 Tahlan et al., reported the synthesis and anti cancer activity of the new benzimidazole derivatives, among all the derivatives the compound **1** (**Figure 3**) found to be best activity at IC_{50} value of $4.53 \mu M$ against the human colorectal cancer cell line [4], same authors in 2018 reported the compound **2** (**Figure 3**) showed best activity at IC_{50} value of $4.12 \mu M$ against the human colorectal carcinoma cell line (HCT116) [18], same year few authors reported the synthesis, anti anti cancer activity of the new benzimidazole derivatives, Aikman et al., reported the compound **3** (**Figure 3**) found to be best active compound at EC_{50} value of $5 \pm 2 \mu M$ against the melanoma (A375) cells [19], Mohamed et al., reported the compound **4** (**Figure 3**) showed best activity at IC_{50} value of $80,35, 72 \mu g/ml$ against the against human breast adenocarcinoma (MCF-7), human lung carcinoma (A549), human epitheloid cervix carcinoma (HELA) [20], Gohary et al., reported the compound **5** (**Figure 3**) showed significant activity at IC_{50} value of $0.022, 0.014, 0.015 \mu M$ against the against liver cancer (HepG2), colon cancer (HCT-116), breast cancer (MCF-7) cells [21], in 2017 Wang et al., reported the synthesis, anti-cancer activity of the chrysin benzimidazole derivatives, the compound **6** (**Figure 3**) showed significant activity at IC_{50} values of $25.72 \pm 3.95 \mu M$ against MFC cells [22] and Yadav et al., reported the anti cancer activity of synthesized the 2-(1*H*-benzo[d]imidazol-2-ylthio)acetamido)-*N*-(substituted-4-oxothiazolidin-3-yl)acetamides, the compound **7, 8** (**Figure 3**) showed significant activity at IC_{50} value of $0.00005, 0.00012 \mu M/ml$ against HCT116 cell line [23], Onnis et al., reported the anti cancer activity of benzimidazolehydrazones, the compound **9** (**Figure 3**) showed excellent activity at IC_{50} value of $0.98 \pm 0.02 \mu M$ against human T-lymphoblastic leukemia (CEM) cells [24].

In 2015 few authors worked on synthesis of benzimidazole and evaluated the anti-cancer activity, the Gao et al., reported the compound **10** (**Figure 3**) showed good activity at IC_{50} value of $2.68 \mu M$ against K562 and HepG-2 cells [25], Kamal et al., reported the compound **11** (**Figure 3**) found to be best at IC_{50} value of $1.8 \mu M$ against



PRINCIPAL
Avanti Institute of Pharmaceutical Sciences
Gunthapally (V), Hayath Nagar (M),
Ranga Reddy Dist.

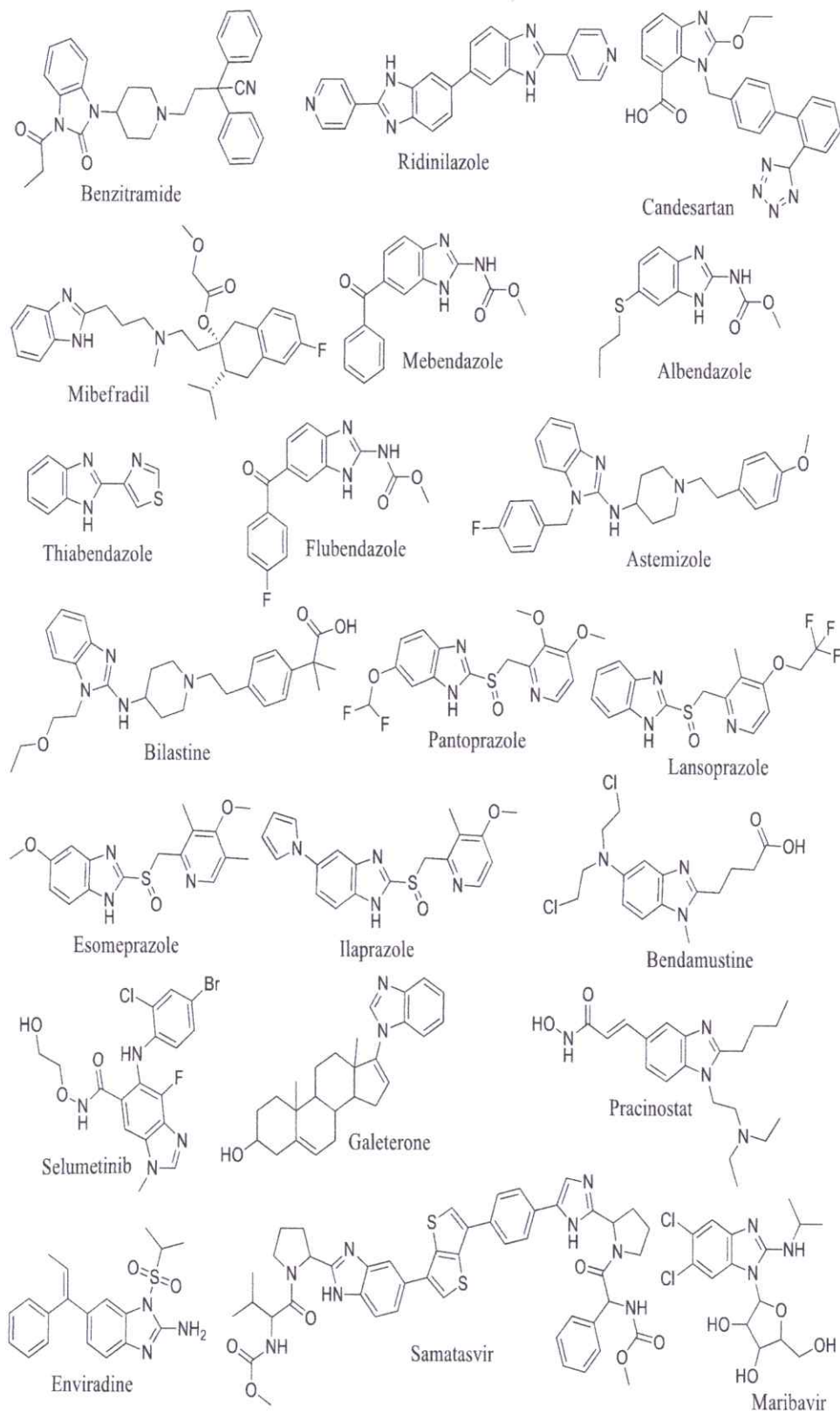


Figure 2. Structures of marketing drugs containing benzimidazole moiety [13–17].



PRINCIPAL
Anant Institute of Pharmaceutical Sciences
Gandhinagar (V), Hayath Nagar (M),
Ranga Reddy Dist.

Conflict of interest

The authors declare no conflict of interest.



A handwritten signature in green ink, consisting of a stylized 'M' followed by a horizontal line.

PRINCIPAL

Avanathi Institute of Pharmaceutical Sciences
Ganthapalle (V), Hayathnagar (M),
Ranga Reddy Dist.

Author details

Mahender Thatikayala^{1*}, Anil Kumar Garige² and Hemalatha Gadegoni³


¹ Avanathi Institute of Pharmaceutical Sciences, Hyderabad, Telangana, India

² Jayamukhi Institute of Pharmaceutical Sciences, Warangal, Telangana, India

³ Pathfinder Institute of Pharmacy Education and Research, Warangal, Telangana, India

*Address all correspondence to: mahenderpharma395@gmail.com

IntechOpen

© 2022 The Author(s). Licensee IntechOpen. This chapter is distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/3.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. 

We are IntechOpen, the world's leading publisher of Open Access books Built by scientists, for scientists

6,200

Open access books available

169,000

International authors and editors

185M

Downloads

Our authors are among the

154

Countries delivered to

TOP 1%

most cited scientists

12.2%

Contributors from top 500 universities



WEB OF SCIENCE™

Selection of our books indexed in the Book Citation Index
in Web of Science™ Core Collection (BKCI)

Interested in publishing with us?
Contact book.department@intechopen.com

Numbers displayed above are based on latest data collected.
For more information visit www.intechopen.com



PRINCIPAL
Kanchi Institute of Pharmaceutical Sciences
Guntur, Ray (V), Hayath Nagar (M),
Ranga Reddy Dist.

72nd INDIAN PHARMACEUTICAL CONGRESS



NAGPUR



Theme: "Access to Quality & Affordable Medical Products"

72nd Indian Pharmaceutical Congress, Nagpur

January 20-22, 2023



आज़ादी का अमृत महोत्सव

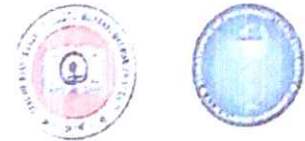
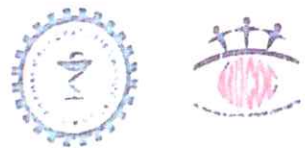


CERTIFICATE OF PARTICIPATION

It is our pleasure to certify that

Dr. K. BALAJI

has participated as delegate in the 72nd Indian Pharmaceutical Congress held at Department of Pharmaceutical Sciences, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur January 20-22, 2023.



VGS
Dr. V. G. Somani
President, IPCA

Atul
Mr. Atul Mandlekar
Chairman, LOC

Milind
Prof. Milind Umekar
Organising Secretary, LOC

Prakash
Prof. Prakash Itankar
Organising Secretary, LOC



AVANTHI
PRINCIPAL
INSTITUTE OF
PHARMACEUTICAL SCIENCES
Abdulla gurmet (M),
Guathaga, Dist.



75
आज़ादी का
अमृत महोत्सव



MOTHERHOOD UNIVERSITY, Roorkee

ENLIGHTENING WORLD



Certificate of Presentation

is to certify that P.V. Pavan Kumar Participated & Presented
/Poster entitled Formulation and characterization of phospholipids of mangifera
is secured..... 2nd position. Position during
3 day International Conference on "New Horizons in Pharmaceutical, Biomedical and Bio-Sciences
on 06th May 2023 at Faculty of Pharmaceutical Sciences, Motherhood University, Roorkee, Uttarakhan

In association with



Seema

Dr.) Seema Tomar
Secretary



[Signature]
Prof. (Dr.) Amit Sharma
Organizing Secretary

[Signature]
PRINCIPAL
Prof. (Dr.) M. Kannadasan
Convener

Prof. (Dr.) M. Kannadasan
Convener

[Signature]
Prof. (Dr.) Narendra Sharr
Vice-Chancellor



TWO DAYS "NATIONAL CONFERENCE ON PHARMACY AND PHARMACEUTICAL SCIENCES" (NCPPS- 2022)



APTI

ORGANIZED BY

CMR COLLEGE OF PHARMACY

Approved by AICTE & PCI, New Delhi, Affiliated to JNTU Hyderabad, B. Pharmacy Program Accredited by NBA KANDLAKOYA (V), MEDCHAL, HYDERABAD, TELANGANA - 501401.



In Association with

Association of Pharmaceutical Teachers of India (APTI)
Telangana State Branch



CERTIFICATE

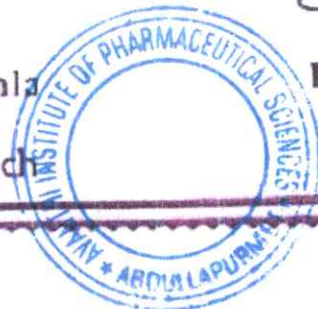
S.KOTI REDDY

This is to certify that Prof./Dr./Mr./Ms. of
AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES Presented a Poster / Oral entitled
THE QUALITY OF SERVICES IN PHARMACY..... in the
TWO DAYS "NATIONAL CONFERENCE ON PHARMACY AND PHARMACEUTICAL SCIENCES" [NCPPS-2022] organized by CMR College of Pharmacy, Hyderabad on 29th & 30th December, 2022.

Dr. Krishna Mohan Chinnala
President
APTI, Telangana State Branch

Dr. T. Rama Rao
Convener

Dr. Ch. Gopal Reddy
Secretary & Correspondent



PRINCIPAL

Avanthi Institute of Pharmaceutical Sciences
Cunthala (V), Hayathnagar
Ranga Reddy Dist.



TWO DAYS "NATIONAL CONFERENCE ON PHARMACY AND PHARMACEUTICAL SCIENCES" (NCPPS- 2022)



APTI

ORGANIZED BY

CMR COLLEGE OF PHARMACY

Approved by AICTE & PCI, New Delhi, Affiliated to JNTU Hyderabad. B. Pharmacy Program Accredited by NBA KANDLAKOYA (V), MEDCHAL, HYDERABAD, TELANGANA - 501401.



In Association with
Association of Pharmaceutical Teachers of India (APTI)
Telangana State Branch

CERTIFICATE

Dr.NIHAR RANJAN DAS

This is to certify that Prof./Dr./Mr./Ms. of
AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES Presented a Poster / Oral entitled
DRUG RESISTANCE DECREASE BY HOME MEDICINE in the
TWO DAYS "NATIONAL CONFERENCE ON PHARMACY AND PHARMACEUTICAL SCIENCES" [NCPPS-2022] organized by **CMR College of Pharmacy, Hyderabad** on 29th & 30th December, 2022.

Dr. Krishna Mohan Chinnala
President
APTI, Telangana State Branch



Dr. T. Rama Rao
Convener

Dr. Ch. Gopal Reddy
Secretary & Correspondent

PRINCIPAL

Ranga Reddy Dist.



TWO DAYS "NATIONAL CONFERENCE ON PHARMACY AND PHARMACEUTICAL SCIENCES" (NCPPS- 2022)



ORGANIZED BY

CMR COLLEGE OF PHARMACY

Approved by AICTE & PCI, New Delhi, Affiliated to JNTU Hyderabad, B. Pharmacy Program Accredited by NBA KANDLAKOYA (V), MEDCHAL, HYDERABAD, TELANGANA - 501401.



In Association with

Association of Pharmaceutical Teachers of India (APTI)



Telangana State Branch

CERTIFICATE

This is to certify that Prof./Dr./Mr./Ms. **P.LAVANYA** of AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES Presented a Poster / Oral entitled 3D PRINTING IN PHARMACEUTICAL INDUSTRY in the TWO DAYS "NATIONAL CONFERENCE ON PHARMACY AND PHARMACEUTICAL SCIENCES" [NCPPS-2022] organized by CMR College of Pharmacy, Hyderabad on 29th & 30th December, 2022.

Dr. Krishna Mohan Chinnala
President
APTI, Telangana State Branch

Dr. T. Rama Rao
Convener

Dr. Ch. Gopal Reddy
Secretary & Correspondent



PRINCIPAL
Avanthi Institute of Pharmaceutical Sciences
Gunthapally (V), Hayath Nagar (M),
Ranga Reddy Dist.



TWO DAYS "NATIONAL CONFERENCE ON PHARMACY AND PHARMACEUTICAL SCIENCES" (NCPPS- 2022)



ORGANIZED BY

CMR COLLEGE OF PHARMACY

Approved by AICTE & PCI, New Delhi, Affiliated to JNTU Hyderabad, B. Pharmacy Program Accredited by NBA KANDLAKOYA (V), MEDCHAL, HYDERABAD, TELANGANA - 501401.



In Association with

Association of Pharmaceutical Teachers of India (APTI)
Telangana State Branch



CERTIFICATE

K.SANDHYA

This is to certify that Prof./Dr./Mr./Ms. of
AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES Presented a Poster / Oral entitled
THE QUALITY OF SERVICES IN PHARMACY..... in the
TWO DAYS "NATIONAL CONFERENCE ON PHARMACY AND PHARMACEUTICAL SCIENCES" [NCPPS-2022] organized by CMR College of Pharmacy, Hyderabad on 29th & 30th December, 2022.

Dr. Krishna Mohan Chinnala
President
APTI, Telangana State Branch

Dr. T. Rama Rao
Convener

Dr. Ch. Gopal Reddy
Secretary & Correspondent



PRINCIPAL
Avanthi Institute of Pharmaceutical Sciences
Gunthapally (V), Hayath Nagar (M),
Ranga Reddy Dist.



Pharma Summit 2022:
Drug Discovery & Community Trial
27th & 28th August 2022

CERTIFICATE

OF BEST ORAL PRESENTATION



PHARMA SUMMIT 2022

DRUG DISCOVERY AND COMMUNITY TRIAL

27th & 28th August 2022 | Virtual Conference & Expo

BIOTECHNICAL UNITED innovators

P.LAVANYA

This is to certify that Mr/Ms/Mrs..... has presented his/her
research paper titled FORMULATION AND EVALUATION OF COLON SPECIFIC DRUG DELIVERY
SYSTEM OF SULFASALAZINE LOADED MICROSPHERES..... which has been

awarded as **Best Oral Presentation** in International Conference on "Pharma Summit 2022: Drug Discovery and
Community Trial" organized by Association of Pharmaceutical Research (APR) on 27th & 28th August 2022.

Dr. Anil Kharla

Partner - Modern Laboratories
Director - Nanitani Medical Laboratories Pvt Ltd
Chairman - Modern Group of Institutions
Indore, Madhya Pradesh, India

Ms. Priyamvada Jain

Associate Director Regulatory Affairs
Lalant Generics Limited
Sector Noida, Uttar Pradesh
India

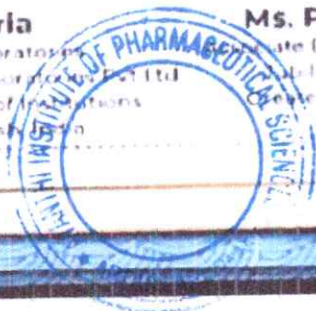
Dr. Md Salahuddin

Principal
Al Armeen College of Pharmacy
Bangalore, Karnataka
India



Mr. Rudra Bhanu Satpathy

CEO & Founder
Association of Pharmaceutical
Research (APR), India



PRINCIPAL

Aradhana

Hayashi



TWO DAYS "NATIONAL CONFERENCE ON PHARMACY AND PHARMACEUTICAL SCIENCES" (NCPPS- 2022)



APTI

ORGANIZED BY

CMR COLLEGE OF PHARMACY

Approved by AICTE & PCI, New Delhi, Affiliated to JNTU Hyderabad, B. Pharmacy Program Accredited by NDA KANDLAKOYA (V), MEDCHAL, HYDERABAD, TELANGANA - 501401.



In Association with

Association of Pharmaceutical Teachers of India (APTI)
Telangana State Branch

CERTIFICATE

A.SRUTHI

This is to certify that Prof./Dr./Mr./Ms. of
AVANTHI INSTITUTE OF PHARMACEUTICAL SCIENCES Presented a Poster / Oral entitled

CAMERA IN A PILL

..... in the
TWO DAYS "NATIONAL CONFERENCE ON PHARMACY AND PHARMACEUTICAL SCIENCES" [NCPPS-2022] organized by CMR College of Pharmacy, Hyderabad on 29th & 30th December, 2022.

Dr. Krishna Mohan Chinnala
President
APTI, Telangana State Branch

Dr. T. Rama Rao
Convener

Dr. Ch. Gopal Reddy
Secretary & Correspondent



Handwritten notes and stamps in blue ink, including 'PRINCIPAL' and 'Dr. Ch. Gopal Reddy Dist.'