Medicinal Plants: Folklore, Phytochemistry and Pharmacology

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Preface

This book is a comprehensive reference that bridges traditional knowledge with modern scientific insights into the use of medicinal plants. The book explores the cultural significance and ethnobotanical traditions associated with various plants, while also delving into the chemical constituents—such as alkaloids, flavonoids, and essential oils—that underpin their therapeutic properties. By integrating folklore with phytochemistry and pharmacological data, the book highlights the potential of these natural resources for developing modern medicines. It serves as an essential resource for researchers, healthcare professionals, and students, offering a holistic understanding of the role of medicinal plants in health and healing

However, based on the title, the book likely explores the intersection of traditional knowledge and modern science in the study of medicinal plants. It probably delves into the ethnobotanical uses of various plants, examining their historical and cultural significance in folk medicine across different regions. Furthermore, the book might bridge traditional wisdom and modern pharmacology, offering insights into preclinical and clinical studies, mechanisms of action, and therapeutic applications. Overall, it could serve as a comprehensive reference for researchers, pharmacists, and students interested in the scientific underpinnings of plant-based medicine..

We hope that this book serves as a valuable resource for students and professionals, fostering a deeper understanding of Medicinal plants and its ethnopharmacological aspects.

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About Authors

Dr. Paras Gupta: Presently working as Associate Professor, United Institute of Pharmacy, Naini(Prayagraj) has completed his B. Pharm from Institute of Pharmacy, Bundelkhand University, Jhansi(U.P.), M. Pharm in PharmacognosyandPhytochemistry from Vinayaka Mission's University, Salem, T.N., Ph D from Mansarover global University, Sehore, M.P.. He has over 14 years of experience in Academics, Research & Administration in various Pharmacy Institutions. His keen interest is in herbal drug standardization and development of herbal formulation. He has his credit of more than 28 research/review publication in National/ International journal of repute, granted with 1 Indian design patent, 1 UK Design patent and published 4 Indian patent. He is Life member of APTI.

Dr. Sangeeta Dwivedi: Dr. Sangeeta Dwivedi completed her B. Pharm. from Department of Pharmacy, Barkatullah University, Bhopal. She has qualified GATE IN 2009 with 95.56 percentile, completed her M. Pharm. in Pharmacology at B. R. Nahata College of Pharmacy, Mandsaur, and holds a Ph.D. from DAVV. She has guided many graduate and postgraduate students. She has an experience of almost 12 years in academics. Her research interests are Pharmacology, Human Anatomy & Physiology, Pathophysiology and Biochemistry. Presently she is working as an Associate Professor in Acropolis Institute of Pharmaceutical Education and Research, Indore. She has contributed 17 papers in National and International journals. Ms. Dwivedi is also author of several books including "Pharma Aspiration" (CBS Publisher),"Pathophysiology" (Techmex Publisher), "Practical book on human anatomy and physiology" (PV Publisher), Experimental Pharmacology-I and II(PV Publisher), and Medicinal chemistry-III (PV Publisher).

Dr. Sumeet Dwivedi: Dr. Sumeet Dwivedi is presently working as Associate Professor, Acropolis Institute of Pharmaceutical Education and Research, Indore, M.P. He has completed his B. Pharm from Smriti College of Pharmaceutical Education, Indore, MP; M.Pharm with Honors & Gold Medal in Pharmacognosy &

Phytochemistry from Vinayaka Mission's University, Salem, TN, Ph.D. from Suresh Gyan Vihar University, Jaipur, RJ, India. He has awarded with Fellowship FLSL in 2013 from Pavan Education society Gujrat for his outstanding performance in research on herbal medicine and herbal formulations. He has over 16 year of experience in Academics, Research and Administration in various Pharmacy Institutions. He has his credit of more than 300 research/review papers in various national and international Journal of repute, has more than 100 abstract in various Seminar & Conferences, published 40 books and serving as Executive Editor, International Journal of Pharmacy and Life Sciences, Reviewer of many Journals and Editorial Board Member of several International Journal viz., African Journals, American J. of Pharmacy etc. He has been awarded as Young Scientist award in 2018, Young Researcher award in 2018, Inspirational Teacher award in 2019, Young Achiever award in 2020, Eminient Researcher Award, 2024 & Best Innovator Award 2024 by various organizations. He has also received letter of appreciation by DHR Industrial, India for adopting his research work formula and methodology for formulation of herbal oil and shampoo in Nov, 2018. He has delivered more than 50 lectures in various Conferences & Seminar. Dr. Dwivedi has successfully organized 6 Seminar funded by MPCST & AERB; Workshop on Medicinal plants and completed two major research project funded by Omar Al-Mukhtar University, Al- Bayda, Libya & Research Cell, OUI. He has also Published 19 Indian Patent, granted with 1 Indian Patent, 1 Australian Patent, 14 Indian Design, 5 UK Design Patent & 1 Copyright. He has guided more than 35 Postgraduate students, awarded eight Ph.D and presently 2 students are working under him for their Doctorate. He has keen interest in Herbal Medicine, Documentation and Validation of herbal dosage form. He is involved in research on biological & pharmacological screening, formulation, standardization of herbals, cultivation practices of medicinal plants and phenological studies of herbs.

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Chapter 1

Traditional Importance and Phytochemistryof *Abutilon indicum*

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Abstract: This plant consists of various chemical constituents that possess medicinal activities. *Abutilon indicum* is found in various parts of the world, mainly in tropical regions, and has been used to treat various diseases, includinganti-inflammatory, anti-ulcer, anti-venom, anti-diabetic, analgesic, anti-cancer, etc. The different parts of the plant such as roots, bark, flowers, and leaves are used as medicines. It has an appreciating use in the Siddha system of medicine. The various phytochemical constituents present in the plant are glycosides, amino acids, flavonoids, alkaloids, and saponins.

Keywords:*Abutilon indicum*, Anti-inflammatory, Phytochemical, Medicinal plant

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