AIMS AND SCOPE

ANNALS OF **PHYTOMEDICINE**

An International Journal

Print ISSN: 2278-9839 Online ISSN: 2393-9885

Impact factor

International Scientific Indexing: 1.021 Scientific Indexing Services : 0.812 Annals of Phytomedicine (AP), is an international, peer-reviewed scientific journal, dedicated to publishing cutting edge research in all areas of phytomedicine. It will publish significant and outstanding developments in all phases of phytomedicine, thus ensuring its scientific priority. The manuscripts intended for publication shall be rigorously refereed and selected on the basis of quality and originality of the work. The journal is aimed at publishing and disseminating the innovative findings in the field of pharmacognosy, phytopharmacology, phytotherapy, chemistry of natural products, phytopharmaceuticals, biological activity of plant extracts and isolated compounds, clinical studies of standardized phytopreparations, phytotoxicity and standardization of drugs and also other related aspects within a single publication.

ANNALS OF PHYTOMEDICINE: An International Journal

BOARD OF EDITORS

Editor-in-Chief: Dr. Irfan Ali Khan Managing Editor: Dr. Atiya Khanum

Associate Editors

Professor Syed Ibrahim Rizvi : Allahabad, Uttar Pradesh, India

Dr. Suaib Luqman: Lucknow, Uttar Pradesh, India Dr. Kuntal Das : Bengaluru, Karnataka, India Dr. K. Nagaiah: Hyderabad, Telangana State, India

Dr. Sayeed Ahmed: New Delhi, India

Coordinating Editors

Dr. Narayan Prasad Yadav: Lucknow, Uttar Pradesh, India Dr. Kanti Bhooshan Pandey: Bhavnagar, Gujarat, India Dr. M. Salman Khan: Lucknow, Uttar Pradesh, India Dr. V.V. Asha: Thiruvananthapuram, Kerala, India Dr. Satyendra Kumar: Ghaziabad, Uttar Pradesh, India

Editorial Board

Dr. Mansoor Alam: Lucknow, Uttar Pradesh, India Professor Sunil K. Khare: New Delhi, India Professor Asna Urooj: Mysore, Karnataka, India Professor Rana Kausar : Hyderabad, Telangana State, India Professor Raman Dang : Bengaluru, Karnataka, India Professor Mohd. Yunus Khaleel Ansari: Aligarh, Uttar Pradesh, India Professor Anupama Koneru: Hyderabad, Telangana State, India Professor Professor Irshad Mahmood : Aligarh, Uttar Pradesh, India Professor Paramjyothi Swamy : Kalaburgi, Karnataka, India Professor Mohammed Ibrahim : Hyderabad, Telangana State, India Professor Samiullah Khan: Aligarh, Uttar Pradesh, India Dr. M.U.R. Naidu: Hyderabad, Telangana State, India Professor Usha Mukundan : Mumbai, Maharashtra, India Professor Archana Giri: Hyderabad, Telangana State, India Professor N. Geetha: Kodaikanal, Tamilnadu, India Professor Syed Mohiuddin : Hyderabad, Telangana State, India Professor B. Andallu: Anantapur, Andhra Pradesh, India Dr. Wamik Azmi : Shimla, Himachal Pradesh, India Professor B. Prathibha Devi : Hyderabad, Telangana State, India

Senior Editors

Professor Wajahat Husain : Aligarh, Uttar Pradesh, India Dr. Khalid M. Siddiqui : New Delhi, India Professor Kaisar Jamil : Hyderabad, Telangana State, India Professor N. Udupa: Manipal, Karnataka, India Professor S.Y. Anwar : Hyderabad, Telangana State, India Professor Mohd Iqbal : New Delhi, India Professor P.B. Kavi Kishor: Hyderabad, Telangana State, India Dr. Munawwar Husain Kazmi: Hyderabad, Telangana State, India Professor Mohammed Anis : Aligarh, Uttar Pradesh, India Professor B. Dashavantha Reddy: Hyderabad, Telangana State, India Professor M. Lakshmi Narasu: Hyderabad, Telangana State, India Dr. M.A.A. Khan: New Delhi, India Professor Anil Kumar: Indore, Madhya Pradesh, India Professor Najmul Islam: Aligarh, Uttar Pradesh, India Professor P. Venkatachalam : Salem, Tamilnadu, India Professor B. Madhava Reddy: Hyderabad, Telangana State, India Professor Srinath Rao: Kalaburgi, Karnataka, India

Foreign Editors

Professor Stanley P. Azen: California, United States of America Professor Rand R. Wilcox: California, United States of America Professor Munir Ozturk: Izmir, Turkey

Professor Ngatu Nlandu Roger: Nankoku, Kochi, Japan

Professor Zahra Emam Djoeh : Tehran, Iran

Professor Aruni Weerasinghe : Arunadhapura, Sri Lanka

Professor Darab Yazdani: Tehran, Iran

Professor Zora Dajic Stevanovic: Belgrade, Republic of Servia

Professor Nazim Sekeraglu: Analya, Turkey

Professor Christina Ramirez Kitchen: California, United States of America

Professor Jamila Kathoon Adam: Durban, South Africa

Professor S.A. Farooq: Muscat, Oman

Dr. Mastura Binti Mohtar: Kepong, Selangor Darul Ehsan, Malaysia Dr. Adnan Ahmad Khan: Kansas City, United States of America Dr. Getha Krishnasamy : Kepong, Selangor Darul Ehsan, Malaysia

Professor Ufuk Cakatay: Istanbul, Turkey Dr. Rizwana Mubeen: Al.Khobar, Saudi Arabia

Advisory Board

Professor Bibi Ameenah Firdous Gurib-Fakim: Managing Director, CEPHYR, BioPark Mauritius, Socoto Phoenicia, Phoenix, Mauritius Her Excellency Professor Bibi Ameenah Firdous Gurib-Fakim President of Mauritius

Padma Shri Dr. E. A. Siddiq : Former DDG (ICAR), New Delhi Presently Honorary Director, Institute of Biotechnology, Acharya N.G. Ranga Agriculture University, Rajendra Nagar, Hyderabad-500030, Telangana State, India

Padma Shri Dr. P. Pushpangadan: Former Director, Tropical Botanic Garden and Research Institute, Thiruvananthapuram-695562, Kerala, India Presently Director General, Amity Institute for Herbal and Biotech Products Development, 3-Ravi Nagar, Peroorkada P.O., Thiruvananthapuram-695 005, Kerala, India

Padma Shri Dr. Seyed E. Hasnain: Former V.C., Hyderabad Central University, Hyderabad-500046, Telangana State, India Presently Professor IIT Delhi, Hauz Khas, New Delhi-110016, India

Professor Habil Akos Mathe: President, International Council for Medicinal and Aromatic Plants, Hungary

Dr. Abd. Latif Mohmod: Director General of FRIM, Forest Research Institute Malaysia, 52109 Kepong, Selangor Darul Ehsan, Malaysia

Professor P.K. Abdul Azis: Former V.C., Cochin University of Science and Technology, Kerala, India

Former V.C., Aligarh Muslim University, Aligarh, Uttar Pradesh, India Presently V.C., University of Science and Technology, Meghalaya, India

Dr. G.N. Qazi: V.C., Hamdard Univeristy, New Delhi-110062, India

Professor Raja Sab: V.C., Tumkur University, Tumkur-572101, Karnataka, India

Professor G. Bhagyanarayana: V.C., Palamuru University, Mahabubnagar-504001, Telangana State, India

Professor Mohammad Yunus : V.C., Mohammed Ali Jauhar University, Rampur-244901, Uttar Pradesh, India

Dr. Ahmad Kamal: Outstanding Scientist, IICT, Hyderabad-500007, Telangana State, India

Professor Rais-Ur-Rahman: Director General, Department of AYUSH, Ministry of Health and Family Welfare, Government of India, AYUSH Bhawan, 'B'-Block. G.P.O. Complex, I.N.A., New Delhi-110023, India

Dr. A. Subramoniam: Former Director, Tropical Botanic Garden and Research Institute, Thiruvananthapuram-695562, Kerala, India

Professor C. Manohara Chary: Emeritus Scientist, Department of Botany, Osmania University, Hyderabad-500007, Telangana State, India

ANNALS OF **PHYTOMEDICINE**

An International Journal

Print ISSN: 2278-9839

Online ISSN: 2393-9885

Impact factor

International Scientific Indexing: 1.021 Scientific Indexing Services

ABSTRACTING AND INDEXING

Chemical Abstract Services (CAS Database), USA: International Scientific Indexing (ISI), Dubai: Scientific Indexing Services (SIS), USA: CiteFactor; J-Gate, Bengaluru, India; Google Scholar and ResearchGate. The journal is also covered by abstracting services of Medicinal and Aromatic Plants Abstracts (MAPA) and Indian Science Abstracts (ISA): New Delhi, India and Indian Citation Index: New Delhi, India

A BIANNUAL RESEARCH JOURNAL OF PHYTOMEDICINE

Print ISSN ISSN: 2278-9839 Online ISSN ISSN: 2393-9885

Frequency HALF YEARLY: Annals of Phytomedicine is a six

monthly research journal, publish two times a year,

i.e., in June and December.

Copyright

Submission of a manuscript to Annals of Phytomedicine implies that authors have certified that the scientific work described has neither been published nor is under consideration for publication anywhere else. It also implies that the content of the manuscript has been approved by all coauthors or otherwise by competent authority of the organization where the work was carried out.

The corresponding author signs and accepts all responsibility on behalf of any and all coauthors. Transfer of copyright to Annals of Phytomedicine of Ukaaz Publications, becomes effective if and when the article is accepted for publication.

Membership: Subscriptions are available on a calendar year basis.

Annual subscription	India	Foreign	SAARC Countries
Individual	Rs. 1500/-	US \$ 100	US \$ 100
Institutional	Rs. 2000/-	US \$ 200	US \$ 150

Printing charges

All the papers submitted for the publication in "Annals of Phytomedicine" will be charged at the rate of Rs. 200/- (\$15) per typed page of the manuscript. The authors are advised to prepare the manuscript typed in double space on one side of A4 size white paper with 10 font size in Page Maker format / MS-Word, keeping proper margin on each side.

Payments are accepted only through demand draft (DD) in favour of "Annals of Phytomedicine-Ukaaz Publications", payable at Hyderabad, Telangana State, India.

Instructions for preparation of manuscript is given on next page

Any enquiry relating to subscription should be sent to the **Managing** Editor for orders, claims, product enquries and other related matters of the article.

All rights are reserved, no part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means-electronic, mechanical, photocopying, recording, without the prior written permission of the publisher.

Copyright Ukaaz Publications, Hyderabad, India Publisher Editor-in-Chief: Dr. Irfan Ali Khan Circulation Managing Editor: Dr. Atiya Khanum

Technical support A. Rajkumar

Distribution National and International

National Managing Editor: Dr. Atiya Khanum

Contact: Export Division International

> UBS Publishers' Distributors Pvt. Ltd. First Floor, Mpl No. 4948, Plot No. 47, Daryaganj, New Delhi 110002, India Telephone: 011 - 23266646-47 011 - 23274846

Fax: +91 11 23276593 E-mail: ubspd@ubspd.com

Editor-in-Chief Managing Editor Editorial Office

Dr. Irfan Ali Khan Dr. Atiya Khanum

16-11-511/D/408, Shalivahana Nagar,

Moosarambagh, Hyderabad-500036,

Telangana State, India

Tel.: 040-24547392, 040-65704477,

Mobiles

Editor-in-Chief : +91-09246509453 Managing Editor: +91-09246584140

E-mail: ukaaz@yahoo.com

Website: www.ukaazpublications.com

Print ISSN : 2278-9839 Online ISSN: 2393-9885

While utmost care is taken in presenting accurate information, Annals of Phytomedicine assumes no responsibility for the statements, opinions, subject matter and also errors or omissions. All material published in Annals of Phytomedicine is covered under copyright. Unauthorized reproduction is prohibited.

ANNALS OF PHYTOMEDICINE: An International Journal

Print ISSN : 2278-9839 Online ISSN : 2393-9885 Impact factor

International Scientific Indexing: 1.021 Scientific Indexing Services: 0.812

A BIANNUAL RESEARCH JOURNAL OF PHYTOMEDICINE

Volume 4, Number 2, December 2015

Table of contents

Invited commentary

1. Herbal medicine in India

Mohammad Yunus

Review

4. Hepatoprotective leads from plants

P. Pushpangadan, T.P. Ijinu, Vipin M. Dan and V. George

Review

18. Bioactive principles of Gymnema sylvestre R.Br.: From yesterday's tradition to tomorrow's drug

Shabana Parveen, Karishma Chester and Syed Akhtar Husain

Review

34. Mechanistic approach of drug discovery from natural substances for thrombocytopenia: A major cause of death in dengue fever patients

Varisha Anjum, S.H. Ansari and Sayeed Ahmad

49. Sacran, a new sulfated glycosaminoglycan-like polysaccharide from river alga

Aphanothece sacrum (Suringar) Okada alleviates hemorrhoid syndrome: Case report

Nlandu Roger Ngatu, Maiko Kaneko Okajima, Luzitu Severin Nangana, Samuel Vumi-Kiaku, Tatsuo Kaneko, Sakiko Kanbara, Roger Di-Mosi Wumba and Stanislas Wembonyama-Okitotsho

- 52. Antioxidative and pro-oxidative property of *Matricaria chamomilla* L. flower for the variants of deoxyribose degradation Suchita Srivastava, Ritesh Kumar and Suaib Luqman
- 59. Phytochemical investigations of in vitro propagated plant Taxus wallichiana Zucc.

An endangered anticancer medicinal plant of Indian origin

Kuntal Das, Raman Dang, Nagesh Ghanshala and P.E. Rajasekharan

- 67. In vitro clonal propagation of Salacia oblonga WALL: An endangered medicinal plant K.G.K. Deepak, G. Suneetha and Ch. Surekha
- 71. Bioactive phytoconstituents in methanolic extract and ethyl acetate fraction of methanolic extract of coriander (*Coriandrum sativum* L.) seeds

C.U. Rajeshwari and B. Andallu

- 77. Normal and genetically transformed tissue cultures of *Calotropis procera* (Ait) R.Br. for production of secondary metabolites Sayeed Ahmad, Madhukar Garg, Ennus Tajjudin Tamboli and Rasheeduz Zafar
- 83. Anti-inflammatory and antioxidants properties of the ethanolic stem bark extract of *Cordia africana* Lam. R.G. Tijjani, A.U. Zezi, R. Shafiu and M.L. Umar
- 88. Anticancer activity of acetone and methanol extracts of Terminalia chebula Retz and

Withania somnifera (Linn.) Dunal on HeLa cell line

Mary Grace Jinukuti and Archana Giri

93. Comparative study on phytochemical, antimicrobial and antioxidant activity of Sapindus mukorossi Gaertn. and Rheum emodi Wall. ex Meissn.: In vitro studies

Meesala Srinivasarao, Mangamoori Lakshminarasu, A. Anjum and Mohammed Ibrahim

- Antiphytopathogenic potential of chitosanase obtained from Bacillus amyloliquefaciens KJ782424
 Manisha Sharma and Wamik Azmi
- 102. Effect of phosphorus on plant growth and nutrient accumulation in a high and a low zinc accumulating chickpea genotypes
 Shadab Naseer Siddiqui, Shahid Umar, Azamal Husen and Muhammad Iqbal
- 106. Aromatic wild-type plants at terai region of Uttar Pradesh with traditional knowledge Ranjeet Kumar Yadav and Archana Mishra

Cover photograph: Antioxidative and pro-oxidative property of Matricaria chamomilla L.

flower for the variants of deoxyribose degradation

Suchita Srivastava, Ritesh Kumar and Suaib Luqman