

# The Dhaka University Journal of Pharmaceutical Sciences

(Dhaka Univ. J. Pharm. Sci.)

Vol. 21, No. 2

December, 2022

This publication is covered by CAS, HINARI, Embase™, Embase-Elsevier, SCIENCE, ROAD, CROSSREF, MEDIA, SCIMAGO, ADAT, Directory of Research Journals Indexing, ResearchGate, JournalTOCs, Internetchemistry, Academic Accelerator, Microsoft Academic and several other abstracting systems.

In addition all papers of each issue are available in  
<[www.dujps.com](http://www.dujps.com)> and <[www.banglajol.info/index.php](http://www.banglajol.info/index.php)>

## EDITORIAL BOARD

### Editor

**Emeritus Prof. Dr. A. K. Azad Chowdhury**

Department of Clinical Pharmacy and Pharmacology  
University of Dhaka

### Associate Editors

**Prof. Dr. Sitesh Chandra Bachar**

Dean, Faculty of Pharmacy  
University of Dhaka

**Prof. Dr. Md. Abdur Rashid**

Department of Pharmaceutical Chemistry  
University of Dhaka

### Members

**Prof. Dr. S. M. Abdur Rahman**

Chairman  
Department of Clinical Pharmacy and Pharmacology  
University of Dhaka

**Professor Dr. Md. Khalid Hossain**

Department of Pharmaceutical Chemistry  
University of Dhaka

**Professor Dr. Md. Elias Al-Mamun**

Chairman, Department of Pharmaceutical Technology  
University of Dhaka

**Professor Dr. Reza-ul-Jalil**

Department of Pharmaceutical Technology  
University of Dhaka

**Professor Dr. Nazmul Qais**

Department of Clinical Pharmacy and Pharmacology  
University of Dhaka

**Professor Dr. Monira Ahsan**

Department of Pharmaceutical Chemistry  
University of Dhaka

**Professor Dr. Md. Saiful Islam**

Department of Clinical Pharmacy and Pharmacology  
University of Dhaka

**Professor Dr. Abu Shara Shamsur Rouf**

Department of Pharmaceutical Technology  
University of Dhaka

**Professor Dr. Mohammad Mehedi Masud**

Department of Pharmaceutical Chemistry  
University of Dhaka

**Prof. Dr. Md. Liaquat Ali**

Former Vice Chancellor  
University of Health Sciences, Dhaka

**Dr. Munirul Alam**

Senior Scientist, Infectious Diseases Division, International  
Centre for Diarrheal Disease and Research (icddr,b),  
Dhaka

**Prof. Dr. Md. Sayedur Rahman**

Department of Pharmacology, Bangabandhu  
Sheikh Mujib Medical University (BSMMU), Dhaka

---

**Published by:** Emeritus Prof. Dr. A. K. Azad Chowdhury, Editor, *The Dhaka University Journal of Pharmaceutical Sciences*, Faculty of Pharmacy, University of Dhaka, Dhaka-1000, Bangladesh on behalf of the Editorial Board.

**Impact Factor: GIF = 0.835 (2015); RG = 0.67 (2018); Citeschore = 0.38 (2017)**

## EDITORIAL ADVISORY BOARD

**Prof. Dr. Claire Anderson**

School of Pharmacy  
The University of Nottingham, UK

**Prof. Dr. Dennis Ross**

Harvard Medical School  
Harvard University, USA

**Prof. Dr. Colin N A Palmer**

Chair of Pharmacogenomics, School of Medicine  
University of Dundee, UK

**Prof. Dr. Abu Serajuddin**

College of Pharmacy and Health Sciences  
St. John's University, New York, USA

**Prof. Dr. Muhammad Ilias**

Research Institute of Pharmaceutical Sciences  
The University of Mississippi, USA

**Prof. Dr. Muhammad Jamil Habib**

College of Pharmacy, Howard University  
Washington DC, USA

**Prof. Dr. Satyajit Dey Sarker**

Director of School of Pharmacy and Biomolecular  
Sciences, Liverpool John Moores University, UK

**Prof. Dr. Muhammad Delwar Hussain**

College of Pharmacy  
California Health Sciences University, USA

**Prof. Dr. Panna Thapa**

KU School of Science  
Kathmandu University (KU), Nepal

**Dr. Omar Faruk Khan**

Associate Dean for Academic Affairs  
University of Charleston, West Virginia, USA

**Prof. Dr. Pulok Kumar Mukherjee**

Director, School of Natural Product Studies  
Jadavpur University, India

All communications regarding the journal should be addressed to: Emeritus Prof. Dr. A. K. Azad Chowdhury, Editor, *The Dhaka University Journal of Pharmaceutical Sciences*, Faculty of Pharmacy, University of Dhaka, Dhaka-1000, Bangladesh. Phone: 9661920-73/8157, 8137; Fax: 880-2-9667222, E-mail: editor.dujps@du.ac.bd, dujps\_du@yahoo.com, r.pchem@yahoo.com; Web: www.dujps.com

**The Dhaka University**  
**Journal of**  
**Pharmaceutical Sciences**

(Dhaka Univ. J. Pharm. Sci.)

Vol. 21

No. 2

December, 2022

CONTENTS

- Olufunmilayo Ebinoluwa Adejumo, Temilade Arinola Edun, Adelodun Lawrence, Kolapo and Olatunde Adekunle Ayodele**- Quality Characteristics and Alpha-Tocopherol Content of Shea Butter Samples from Selected Markets within Three Southwestern States of Nigeria 105-115  
DOI: <https://doi.org/10.3329/dujps.v21i2.63112>
- Koma Afrin Rintu, Kazi Milenur Rahman Prattay, K. M. Yasif Kayes Sikdar, Tanvir Rahman, Md. Raihan Sarkar and Tanveer Hossain** - A Cross-sectional Study to Evaluate People's Knowledge, Attitude and Practice Towards Using Disinfectants and Sanitizers During COVID-19 Pandemic in Bangladesh 117-126  
DOI: <https://doi.org/10.3329/dujps.v21i2.63113>
- Sajan Das, Shupti Rani Bhadra, Muhammad Shah Mohtasim Khan, Md. Mahfuzul Hasan, Md. Rafi Anwar and Mohammad Shahriar** - Ethnopharmacological Survey of Medicinal Plants Used by Traditional Health Practitioners and Indigenous People in Chittagong Hill Tracts, Bangladesh for the Treatment of Dysentery 127-146  
DOI: <https://doi.org/10.3329/dujps.v21i2.63114>
- Md. Mizanur Rhaman, Mohammad Shoeb and Md. Nazrul Islam** - Evaluation of Total Phenolic, Flavonoid Content and Antioxidant Capacity of Different Parts of *Averrhoa carambola* L. 147-151  
DOI: <https://doi.org/10.3329/dujps.v21i2.63115>
- Kaniz Fatema, B. K. Sajeeb, K. M. Yasif Kayes Sikdar, A. S. M. Monjur-Al-Hossain and Sitesh C. Bachar** - Evaluation of the Formulation of Combined Dosage Form of Albendazole and Mebendazole through *In vitro* Physicochemical and Anthelmintic Study 153-163  
DOI: <https://doi.org/10.3329/dujps.v21i2.63116>
- Ogochukwu Immaculate Obika, Aminat Asabi Oywaluja, Joseph O. Oiseoghaede, Olukemi Abiodun Odukoya and Ngozi Afulenu Obika-Ndiri** - Evaluation of *Sorghum bicolor* (L.) Moench on the Reduction of Creatinine Levels and Its Antioxidant Properties *In vitro* 165-172  
DOI: <https://doi.org/10.3329/dujps.v21i2.63117>
- Munsifa Sultana, Sajan Das, Mohammad Shahriar, Rumana Akhter, Isa Naina Mohamed and Mohiuddin Ahmed Bhuiyan** - *In vitro* Comparative Studies of the Leaf Extracts of Four Different Types of *Calamus* Species 173-181  
DOI: <https://doi.org/10.3329/dujps.v21i2.63118>
- Gazi Monjur Murshid, Md. Hossain Sohrab, Khondoker Shahin Ahmed, Mohammad Mehedi Masud and Md. Abdul Mazid** - Antiproliferative and Antibacterial Potentials of Endophytic Fungi Associated with Bangladeshi Medicinal Plant *Tinospora Cordifolia* 183-194  
DOI: <https://doi.org/10.3329/dujps.v21i2.63119>

- Derouiche Samir, Salem Saadia and Leguemairi Maroua-** Study of Risk Factors and Assessment of Hematotoxicity and Oxidative Stress Among Women Stroke Patient with Metabolic Syndrome 195-203  
DOI: <https://doi.org/10.3329/dujps.v21i2.63120>
- Jesmin Sultana, Mohammad Saifuddin and Zakir Hossain Bhuiyan-** Influence of Cardiologists' Demographic Profile on Overall Satisfaction Towards Marketing Mix Strategies 205-215  
DOI: <https://doi.org/10.3329/dujps.v21i2.63121>
- B. K. Sajeeb, Mohammad Zashim Uddin, Ritesh Bachar and Sitesh C. Bachar-** Ethnobotanical Study on Medicinal Plants Used by the Ethnic People of Khagrachhari District, Bangladesh 217-230  
DOI: <https://doi.org/10.3329/dujps.v21i2.63122>
- Kakoli Sutradhar, Md. Rafat Tahsin, Sania Ashrafi, Sonia Ferdousy, Tahmina Akter, Fahima Aktar, Jakir Ahmed Chowdhury, Abu Asad Chowdhury, Shaila Kabir and Md. Shah Amran-** Phytochemical, Biochemical and Pharmacological Properties of *Plantago ovata* (Ispaghula Husk) – A Review 231-243  
DOI: <https://doi.org/10.3329/dujps.v21i2.63123>

# The Dhaka University Journal of Pharmaceutical Sciences

(Dhaka Univ. J. Pharm. Sci.)

Vol. 21

No. 1

June, 2022

## CONTENTS

- Arifuzzaman, Mohadese Mohammadi, Fatema Hashem Rupa, Mohammad Firoz Khan, Ridwan Bin Rashid and Mohammad A. Rashid** - Identification of Natural Compounds with Anti-SARS-CoV-2 Activity using Machine Learning, Molecular Docking and Molecular Dynamics Simulation Studies  
DOI: <https://doi.org/10.3329/dujps.v21i1.60391> 1-13
- Margia Sultana, Jamiuddin Ahmed, Md Abdul Berek , Shaidul Kabir Sohag, Md. Safayet Hossain and Umme Habiba** - Evaluation of Antioxidant, Antibacterial and Analgesic Activities of *Syzygium cumini* used in Bangladesh  
DOI: <https://doi.org/10.3329/dujps.v21i1.60392> 15-24
- Md. Abdul Motaleb Bhuiya, Kishor Mazumder, Irin Dewan and Md. Elias Al-Mamun** - Design and Development of Clarithromycin Floating Pellets Using Sodium Alginate and HPMC  
DOI: <https://doi.org/10.3329/dujps.v21i1.60393> 25-31
- Vaskar Chowdhury, Nusrat Tabassum Shristy, Md. Hasanur Rahman and Tofail Ahmad Chowdhury** - Qualitative Phytochemical Screening, Fatty Acid Composition Analysis and Biological Studies of *Trianthema portulacastrum* L. Leaves  
DOI: <https://doi.org/10.3329/dujps.v21i1.60394> 33-43
- Kosisochi C. Amorha, Mathew J. Okonta† and Chinwe V. Ukwe** - Predictors of Adherence and Asthma Control in Two Federal Teaching Hospitals in Nigeria  
DOI: <https://doi.org/10.3329/dujps.v21i1.60395> 45-51
- Rilwan O. Adewale, Oluwatosin T. Onasanya, Oladele A. Oguntade, Babajide R. Odebiyi, Oluseun A. Akinsorotan, Kola S. Olorunisola, Shakiru O. Sule and Olusesi A. Oso** - Isolation, Characterization and Identification of Selected Microorganisms from Wildlife Geophagic Soil: A Probe of Pros and Cons  
DOI: <https://doi.org/10.3329/dujps.v21i1.60396> 53-58
- Md. Hafizur Rahman, Begum Rokeya, Mohammed Mosihuzzaman and Md Shahinul Haque Khan** - Qualitative Assessment of a Customized Anti-hepatic Herbal Formulation in Bangladesh  
DOI: <https://doi.org/10.3329/dujps.v21i1.60397> 59-67
- Mehedi Islam, Md. Al Amin Sikder, Mohammad A. Rashid and Md. Khalid Hossain** - Phyto-pharmacological Investigations of Leaves of *Cissus trifoliata* (L.)  
DOI: <https://doi.org/10.3329/dujps.v21i1.60398> 69-75
- Diponkor Kumar Shill, Uttom Kumar, A.S.M. Monjur Al Hossain, Md. Rezowanur Rahman and Abu Shara Shamsur Rouf** - Development and Optimization of RP-UHPLC Method for Mesalamine Through QbD Approach  
DOI: <https://doi.org/10.3329/dujps.v21i1.60399> 77-84
- Arifa Sultana, Sabiha Enam Spriha and S. M. Abdur Rahman** - Antioxidant, Analgesic, Antimicrobial and Molecular Docking Studies of the Leaves of *Oroxylum indicum* (L.) Kurz.  
DOI: <https://doi.org/10.3329/dujps.v21i1.60400> 85-94
- Sania Ashrafi and Mohammad Mehedi Masud** - Review on Some Bangladeshi Medicinal Plants with Anticancer Properties  
DOI: <https://doi.org/10.3329/dujps.v21i1.60401> 95-104

## INSTRUCTIONS TO AUTHORS

**The following instructions must be followed during preparation of manuscripts intended for publication in the *Dhaka University Journal of Pharmaceutical Sciences*:**

*The Dhaka University Journal of Pharmaceutical Sciences*, a **peer reviewed journal**, invites and publishes full papers, short communications and review articles that make substantial and scholarly contributions to any areas of pharmaceutical sciences.

Manuscripts should be written in English, preferably composed with a computer, in double space with wide margins on 29.21 × 21.59 cm good quality bond or A4 (29.7 × 21.0 cm) offset paper and should not exceed 16 pages in case of full papers and 8 pages in case of short communications, including tables and figures.

**Title page.** The title should appear on a separate page and should be followed by the author names and the institution name and address. The title, author name(s), and affiliations should all appear on their own respective line of text. Place an asterisk after the name of the author to whom enquiries regarding the paper should be directed and include that author's telephone and fax numbers and e-mail address.

**Abstract.** The abstract, detailing, in one paragraph, the problem, experimental approach, major findings, and conclusions, should appear on the second page. It should be double-spaced and should not exceed 150 words for full papers.

**Key words.** Author(s) must give 3 to 10 "key words" or phrases, which identify the most important subjects covered by the paper. These should be placed at the end of the abstract.

**Introduction.** The manuscript should include a brief introduction stating the purpose of the investigation and relating the manuscripts to similar research previously or currently being conducted. Only information essential to the arguments should be presented.

**Materials and Methods.** This section should contain some specific details about the materials studied, instruments used, sources of specialized chemicals and related experimental details to allow other workers to reproduce the results. Separate paragraphs with sub-headings may be used to describe the experimental details.

**Results and Discussion.** The results should be presented concisely. Tables and figures should be

designed to maximize the presentation and comprehension of the experimental data. The discussion should interpret the results and relate them to existing knowledge in the field as clearly and briefly as possible.

**Acknowledgements.** The Acknowledgments section should include credits for assistance, financial support, and other appropriate recognition.

**References.** References to the literature, regardless of their nature, should be numbered in order of appearance in the manuscript and cited in the text with superscript numbers. References should follow the format shown:

1. Khan, S., Jabbar, A., Hasan, C.M. and Rashid, M.A. 2000. Nasimaluns A and B: *neo-clerodane* diterpenoids from *Barringtonia racemosa*. *J. Nat. Prod.* **63**, 410-411.
2. Rashid, M.A., Gustafson, K.R., Crouch, R.C., Groweiss, A., Pannell, L.K., Van, Q.N. and Boyd, M.R. 2002. Application of high-field NMR and cryogenic probe technologies in the structure elucidation of poecillastrin A, a new antitumor macrolide lactam from the sponge *Poecillastra* species. *Org. Lett.* **4**, 3293-3296.
3. Harborne, J.B. and Williams, C.A. 2000. Advances in flavonoid research since 1992. *Phytochemistry* **55**, 481-504
4. Mabry, T., Markham, K.R. and Thomas, M.B. 1971. *The Systematic Identification of Flavonoids*. Springer Verlag, New York, p. 43.
5. Harborne, J.B. 1983. In: *Chemistry and Chemical Taxonomy of the Rutales* (Waterman, P.G. and Grundon, M.F., Eds.), Academic Press, London, Chapter 2, pp. 147-173.
6. Hasan, C.M. 1982. Phytochemical studies on some African Annonaceae. Ph.D. Thesis, University of Strathclyde, U.K., p. 35.
7. Davis, R. 1998. US Patent 5, 708, 591.

**Abbreviations.** Abbreviations are used without periods. Standard abbreviations should be used throughout the manuscript. The preferred forms of some of the more commonly used abbreviations are mp, bp, °C, K, s, min, h, ml, µl, kg, g, mg, µg, cm, mm, nm, mol, mmol, µmol, ppm, TLC, GC, NMR, MS, UV, and IR.

**Structural drawings.** The quality of the illustrations printed depends on the quality of the originals provided. The pages of the *Dhaka University Journal of Pharmaceutical Sciences* are produced completely electronically. Tracing paper or textured "artist" papers should be avoided. Structures of

compounds should be produced with the use of a drawing program such as ChemDraw (according to the format of ACS Document 1996) or ISIS Draw.

**Tables.** These should be numbered consecutively with Arabic numerals and should be grouped at the end of the paper. Each table should be provided with a descriptive heading, which, together with the individual column headings, should make the table as nearly as possible, and self-explanatory.

**Figures.** Figures should be constructed carefully. All illustrations should be numbered as "Figures", with Arabic numerals. Blocks of chemical structures should not be designated as "Figures". Each figure must be identified outside the frame of the figure. The figure number (Arabic) and legend must be typed clearly.

**Short communications.** Short communication should not contain any abstract. The list of references should not exceed 10. The presentation of Short Communications should be continuous and paragraphed but should not contain any headings such as Introduction, Results and Discussion, etc.

**Electronic manuscript submission.** The final accepted version of the manuscript should be submitted in electronic form. The disk should accompany the final accepted version of the manuscript and MUST exactly match the final accepted version in hardcopy. Label the disk with the manuscript number and the corresponding author name. Provide the platform, version of software used, and filenames on the Media Description form. It is best to use the fonts "Times New Roman" and "Symbol". Tables may be created using a word processor's text mode or table format feature. The table format feature is preferred. Ensure each data entry is in its own table cell. If the text mode is used,

separate columns with a single tab and use a line feed (return) at the end of each row.

**Proofs.** Galley proofs will be sent to the corresponding author, which s/he is requested to correct and return as soon as possible. No new matter be inserted in the text and **no changes be made in the title or author name(s) at the time of proof reading.**

**Declaration.** All authors are requested to sign a declaration that the work described in the manuscript was carried out by them and the contents of the paper have not been published before or submitted elsewhere for publication. When the number of authors/co-authors is more than one, the corresponding author is required to mention the exact contribution of each co-author and also indicate his/her percentage of contribution.

**Corrections.** If errors of consequence are detected in a published paper, the author(s) should send a correction to the Editor for publication as an Addition and Correction.

**Editorial office.** Manuscripts should be submitted in triplicate to the Editor, *Dhaka University Journal of Pharmaceutical Sciences*, Faculty of Pharmacy, University of Dhaka, Dhaka-1000, Bangladesh. The journal also welcomes electronic submissions of manuscripts. Correspondences regarding any submitted or accepted papers and proofs should be directed to the editorial office.

Phone: 9661920-73/8157, 8137; Fax: 880-2-9667222;

E-mail: editor.dujps@du.ac.bd, dujps\_du@yahoo.com, r.pchem@yahoo.com; Web: www.dujps.com