



ISSN: 0301-4606

# BANGLADESH PHARMACEUTICAL JOURNAL

Vol. 24, No. 1

January 2021

## EDITORIAL BOARD

### Editor-in-Chief

**Professor Dr. Md. Anwar Ul Islam**  
Department of Pharmacy &  
Former Dean, Faculty of Science, Rajshahi University

### Executive Editor

**Professor Dr. Md. Abdur Rashid, FRSC**  
Department of Pharmaceutical Chemistry &  
Former Dean, Faculty of Pharmacy, University of Dhaka

### Members

**Professor A.Y. Sk. Firoz Uddin Ahmed Chowdhury**  
Department of Pharmacy, Jahangirnagar University

**Professor Dr. Reza-ul Jalil**  
Faculty of Pharmacy, University of Dhaka

**Professor Dr. Md. Saiful Islam**  
Faculty of Pharmacy, University of Dhaka

**Professor Md. Saiful Islam Pathan**  
Department of Pharmacy, State University of Bangladesh

**Professor Dr. Md. Aslam Hossain**  
Faculty of Pharmacy, University of Dhaka

**Professor Dr. Md. Khalid Hossain**  
Faculty of Pharmacy, University of Dhaka

**Professor Dr. Mohiuddin Ahmed Bhuiyan**  
Department of Pharmacy, University of Asia Pacific

**Mr. Md. Nasser Shahrear Zahedee**  
Chairman, Radiant Pharmaceuticals Ltd.

**Professor Dr. Nazmul Qais**  
Faculty of Pharmacy, University of Dhaka

**Professor Dr. Md. Selim Reza**  
Faculty of Pharmacy, University of Dhaka

**Professor Dr. Md. Sohel Rana**  
Department of Pharmacy, Jahangirnagar University

**Professor Dr. Md. Shah Amran**  
Faculty of Pharmacy, University of Dhaka

**Dr. Md. Hassan Kawsar**  
Department of Pharmacy, State University of Bangladesh

### Advisors

**Professor Dr. Abdul Ghani**  
Department of Pharmacy, Primeasia University

**Professor Dr. Rebecca Banoo**  
Faculty of Pharmacy, University of Dhaka, Bangladesh

**Professor Dr. Nurun Nahar Rahman**  
Department of Pharmacy, Manarat International University

**Professor Dr. Choudhury Mahmood Hasan**  
Faculty of Pharmacy, University of Dhaka

# Bangladesh Pharmaceutical Society (BPS)

## Central Executive Council

Name & Portfolio	Institutional Affiliation
<b>Mr. A. T. M. Fakhor Uddin Chowdhury</b> President	House-29, Apt. - B2, Block - A, Road - 1, Niketon, Gulshan-1, Dhaka-1212
<b>Professor Dr. Md. Anwar Ul Islam</b> Vice President	Former Dean, Faculty of Science, Rajshahi University, Rajshahi-6205
<b>Mr. Md. Abul Khair Chowdhury</b> Vice President	Former Director, Directorate General of Drug Administration (DGDA), Dhaka-1000
<b>Dr. Md. Hassan Kawsar</b> General Secretary	Professor, Department of Pharmacy State University of Bangladesh, Dhanmondi, Dhaka-1205
<b>Prof. Dr. Md. Sohel Rana</b> Joint Secretary	Department of Pharmacy Jahangirnagar University, Savar, Dhaka
<b>Prof. Dr. Mohiuddin Ahmed Bhuiyan</b> Joint Secretary	Department of Pharmacy, University of Asia Pacific Dhanmondi, Dhaka-1205
<b>Prof. Dr. Md. Aslam Hossain</b> Finance Secretary	Faculty of Pharmacy, University of Dhaka Dhaka-1000
<b>Mr. Mohammad Shamsul Alam</b> Organizing Secretary	Senior Assistant Manger, International Business, Radiant Pharmaceuticals Limited, 22 Dhanmondi, Road-2, Dhaka-1205
<b>Mr. Aninda Kumar Nath</b> Publication Secretary	Assistant Professor, Department of Pharmacy BGC Trust University Bangladesh, Chittagong
<b>Mr. Md. Mahbulul Islam</b> Member	General Manager, Drug International Ltd. Tongi Industrial Area, Gazipur-1710
<b>Mr. Md. Nasser Shahrear Zahedee</b> Member	Chairman, Radiant Pharmaceuticals Limited 22 Dhanmondi, Road-2, Dhaka-1205
<b>Prof. Md. Saiful Islam Pathan</b> Member	Head, Department of Pharmacy State University of Bangladesh, Dhanmondi, Dhaka-1205
<b>Prof. Dr. Md. Selim Reza</b> Member	Faculty of Pharmacy, University of Dhaka Dhaka-1000
<b>Mr. Akhil Dutta</b> Member	General Manager, Bengal Remedies Limited Tongi, Gazipur
<b>Prof. Dr. Mustafizur Rahman</b> Member	Professor, Pharmacy Discipline University of Khulna, Khulna
<b>Mr. Masum Shahriar</b> Member	Associate Professor, Department of Pharmacy Jahangirnagar University, Savar, Dhaka
<b>Mr. Mohammad Ashraful Alam</b> Member	Marketing Manager, Radiant Pharmaceuticals Limited 22 Dhanmondi, Road-2, Dhaka-1205
<b>Mr. Mohammad Aksir Uzzal Khan</b> Member	Senior Production Officer, Essential Drugs Company Limited 395-397, Tejgaon I/A, Dhaka-1208.

Computer formatted & printed by:

Hasib Computers & Printing, 62/1 Purana Paltan (2nd floor), Dhaka-1000, Bangladesh  
Phone: 01552-388130, 01612-388130, 9016429 (Res.), E-mail: hasibprinting@gmail.com

# BANGLADESH PHARMACEUTICAL JOURNAL

Vol. 24, No. 1

January 2021

## CONTENTS

- Bioactivities of *Colocasia affinis* Schott and Profiling of its Bioactive Polyphenols by HPLC-DAD** 1-10  
Shrabanti Dev, Rabindra Nath Acharyya, Manik Chandra Shill, Md. Abdullah Al Bari, Kaniz Asma, Imran Mahmud, Hemayet Hossain, Nripendra Nath Biswas, Masum Shahriar and Asish Kumar Das  
DOI: <https://doi.org/10.3329/bpj.v24i1.51629>
- Comparative Cytotoxicity of Selected *Mikania* species using Brine Shrimp Lethality Bioassay and Sulforhodamine B (SRB) Assay** 11-16  
Rafeza Khatun, Iffat Hasnin, Anamul Haque and Md. Aziz Abdur Rahman  
DOI: <https://doi.org/10.3329/bpj.v24i1.51630>
- Formulation and Antioxidant Activity Evaluation of *Spondias mombin* - *Abelmoschus esculentus* Mucilage Emulsion** 17-25  
Joseph O. Oiseoghaede, Aminat A. Oyawaluja, Olukemi A. Odukoya, Margaret O. Ilomuanya, Oriyomi I. Yinusa and Omotayo K. Raji  
DOI: <https://doi.org/10.3329/bpj.v24i1.51631>
- A Comparative Study of Memory, Attention, Cognition and Oestradiol in Pre and Postmenopausal Women in Bangladesh** 26-32  
Kaniz Rabeya, Mamta Mahal Neela, Ragib Ahsan, Bishyajit Kumar Biswas and Md. Monir Hossain  
DOI: <https://doi.org/10.3329/bpj.v24i1.51632>
- Phytochemical Investigation of *Schleichera oleosa* (Lour.) Oken Leaf** 33-36  
Noushin Anjum, Md. Jamal Hossain, Mohammad Rashedul Haque, Akhtaruzzaman Chowdhury, Mohammad A. Rashid and Md. Ruhul Kuddus  
DOI: <https://doi.org/10.3329/bpj.v24i1.51633>
- Assessment of Quality of Azithromycin, a Macrolide Antibiotic by NMR Spectroscopy** 37-44  
Mohammad Shoeb, Md. Farhanul Alam, Md. Mazharul Islam, Nargis Parvin, Md. Nazrul Islam and Md. Iqbal Rouf Mamun  
DOI: <https://doi.org/10.3329/bpj.v24i1.51634>
- Evaluation of Red and Green Colored Bell peppers for the Production of Polyclonal IgM and IgG Antibodies in Murine Spleen Cells** 45-53  
Md. Moklesur Rahman Sarker  
DOI: <https://doi.org/10.3329/bpj.v24i1.51635>
- Nutritional Analysis and Mineral Content Determination of *Emilia sonchifolia* DC** 54-59  
Md. Masud Morshed, Md. Sohel Rana, Talha Bin Emran, Md. Didaruzzaman Sohel and Mohammad Hassan Kawsar  
DOI: <https://doi.org/10.3329/bpj.v24i1.51636>
- Review article**
- Understanding and Dealing the SARS-CoV-2 Infection: An Updated Concise Review** 61-76  
Md. Jamal Hossain, Md. Ruhul Kuddus, Mohammad A. Rashid and Md. Zakir Sultan  
DOI: <https://doi.org/10.3329/bpj.v24i1.51637>

<b>A Short Review on the Bioactive Constituents from Six <i>Terminalia</i> Species</b> Mohammad Musarraff Hussain DOI: <a href="https://doi.org/10.3329/bpj.v24i1.51638">https://doi.org/10.3329/bpj.v24i1.51638</a>	76-82
<b>Current Pharma News</b>	80-86
<b>New Drug Approvals</b>	87-88
<b>New Indications &amp; Dosage Forms for Existing Drugs</b>	89-90

# Notice to Contributors

*Bangladesh Pharmaceutical Journal* is a peer reviewed international and multidisciplinary journal, published by Bangladesh Pharmaceutical Society in January and July of each year. Original research papers or review articles are accepted on the understanding that they are subject to editorial revision, that their contents have not been published elsewhere and that in consideration of acceptance of a text for publication, the copyright of the said text is assigned to the *Bangladesh Pharmaceutical Journal*.

## Contributions

Manuscripts for publication and communications concerning editorial matters should be sent to the Editor-in-Chief through e-mail: [bpjeditor@yahoo.com](mailto:bpjeditor@yahoo.com). A copy of the same should also be sent to the Executive Editor through e-mail: [executiveeditor2014@gmail.com](mailto:executiveeditor2014@gmail.com).

## Preparation of Text

Authors should consult a CURRENT issue of the journal and conform to the typographical conventions, use of headings, layout of tables and citation of references. Texts must be computer composed (MS office programs should be used in preparing the texts, charts and graphs) in double spacing and printed in one side of A4 size offset paper, with a minimum margin of 1 inch on all sides. Two sets of hard copies should be submitted along with soft copy in CD. The articles may also be sent through E-mail to the Editor-in-Chief or Executive Editor.

The name(s) of the contributor(s), affiliation of the laboratory where the work was done and a shortened title should accompany the typescript. A summary page should be included, describing results and conclusions in the form of ABSTRACT suitable for use as such by the abstracting journals. It should not exceed 250 words. A list of 3-6 Key words should be supplied by the authors.

## References

All citations in the text must appear in the References list and *vice versa*. In the text, the reference should appear as either: Ghani (1984) described, or As described previously (Ghani, 1984). When there are more than two authors, mention only the first author, e.g. Ghani *et al.*, 1984. If the year is same for several references identify these with a,b,c, etc. e.g. Ghani (1975a,b,c) both in the text and in the Reference list. In the Reference list, arrange the references in alphabetical order. References should follow the format shown:

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.

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.

Harborne, J.B. and Williams, C.A. 2000. Advances in flavonoid research since 1992. *Phytochemistry* **55**, 481-504.

Mabry, T., Markham, K.R. and Thomas, M.B. 1971. *The Systematic Identification of Flavonoids*. Springer Verlag, New York, p. 43.

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.

Hasan, C.M. 1982. Phytochemical studies on some African Annonaceae. Ph. D. Thesis, University of Strathclyde, U.K., p. 35.

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, IR, etc.

## Tables

Tables should be typed in appropriate places in the text and numbered consecutively using Arabic numerals (e.g. 1, 2, 3). Their headings should briefly describe their contents.

## Graphs and Photographs

All graphs and charts should be made with either MS Excel or Harvard Graphics software along with title and legends. Photographs, either colored or black & white should be developed on glossy paper. Title and legends of the photographs should be typed at the end of the manuscript. The photographs should also be marked at the back with figures number and title of the paper.

If the author scans a photograph, the preferable file formats are Adobe photoshop, JPEG, PSD, BMP. The resolution should not be less than 200 and the size of the photographs should be at least double.

## 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.

## Editorial Office

Bangladesh Pharmaceutical Journal  
C/o. Bangladesh Pharmaceutical Society  
22 Dhanmondi R/A, Road 2, Dhaka-1205, Bangladesh  
E-mail: [bpjeditor@yahoo.com](mailto:bpjeditor@yahoo.com), [executiveeditor2014@gmail.com](mailto:executiveeditor2014@gmail.com)  
Web: [www.bpj-bd.com](http://www.bpj-bd.com)