

ISSN: 1816-1820 (Print version)
1816-1839 (Online version)

The Dhaka University Journal of Pharmaceutical Sciences

(*Dhaka Univ. J. Pharm. Sci.*)

Vol. 11, No. 2

December, 2012

EDITORIAL BOARD

Editor

Emeritus Prof. Dr. Abdul Jabbar

Department of Pharmaceutical Chemistry
University of Dhaka

Members

Prof. Dr. Md. Saiful Islam

Dean, Faculty of Pharmacy
University of Dhaka

Prof. Dr. A. K. Azad Chowdhury

Department of Clinical Pharmacy and
Pharmacology, University of Dhaka

Prof. Dr. Muniruddin Ahmed

Department of Clinical Pharmacy and
Pharmacology, University of Dhaka

Prof. Dr. Md. Amjad Hossain

Department of Pharmaceutical Chemistry
University of Dhaka

Prof. Dr. Bidyut Kanti Datta

Department of Pharmaceutical Technology
University of Dhaka

Prof. Dr. Reza-ul-Jalil

Department of Pharmaceutical Technology
University of Dhaka

Prof. Dr. Md. Abdur Rashid

Department of Pharmaceutical Chemistry
University of Dhaka

Prof. Dr. Nurun Nahar Rahman

Department of Pharmaceutical Chemistry
University of Dhaka

Prof. Dr. Choudhury Mahmood Hasan

Department of Pharmaceutical Chemistry
University of Dhaka

Prof. Dr. Rebecca Banoo

Department of Pharmaceutical Chemistry
University of Dhaka

Prof. A. B. M. Faroque

Department of Pharmaceutical Technology
University of Dhaka

Prof. Dr. Nazmul Qais

Department of Clinical Pharmacy and
Pharmacology, University of Dhaka

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

All communications regarding the journal should be addressed to: Emeritus Prof. Dr. Abdul Jabbar, Editor, *The Dhaka University Journal of Pharmaceutical Sciences*, Faculty of Pharmacy, University of Dhaka, Dhaka-1000, Bangladesh. Phone: 9661920-73/8133, Fax: 880-2-8615583, E-mail: dujps_du@yahoo.com, Web: www.dujps.com; www.pharmadu.net

Computer formatted by:

Hasib Computers & Printing, 62/1, Purana Paltan, Dhaka-1000, Bangladesh
Phone: 01552-388130, 9016429 (Res.), E-mail: hcomputer05@yahoo.com

Printed by:

Asiatic Civil Military Press, 43/10 C, Swamibag, Dhaka-1100, Bangladesh. Phone: 7120428

The Dhaka University Journal of Pharmaceutical Sciences

(Dhaka Univ. J. Pharm. Sci.)

Vol. 11

No. 2

December, 2012

CONTENTS

- Fariba Khan, Md. Saiful Islam and Reza-ul Jalil** - Study of Solubility of Atorvastatin using Ternary Phase Diagram for the Development of Self-Emulsifying Drug Delivery Systems (SEDDS) 83
- Mehedi Afzal, Md. Zakir Sultan, Rehana Begum, Asma Rahman, Md. Shah Amran and Md. Amjad Hossain** - *In vitro* Interaction of Nandrolone with Calcium Nitrate, Magnesium Sulfate and Potassium Permanganate in Aqueous Medium 93
- Shuvashis Saha, Rehana Begum, Md. Zakir Sultan, Farhad Md. Amjad, Md. Shah Amran and Md. Amjad Hossain** - *In vitro* Interaction of Metformin with Diclofenac in Aqueous Medium 101
- Shivanand Hiremath and Ganesh Godge** - Preparation and *in vitro* Evaluation of Inclusion Complexes of Nelfinavir with Chemically Modified β -cyclodextrins 107
- A.T.M. Zafrul Azam, Abdullah Al Hasan, Md. Gias Uddin, Mohammad Mehedi Masud and Choudhury Mahmood Hasan** - Antimicrobial, Antioxidant and Cytotoxic Activities of *Glochidion multiloculare* (Roxb. ex Willd.) Müll. Arg. (Euphorbiaceae) 117
- Jaydeep M. Patel, Anjali P. Dhingani, Kevin C. Garala, Mihir K. Raval and Navin R. Sheth** - Development and Validation of Bioanalytical HPLC Method for Estimation of Telmisartan in Rat Plasma: Application to Pharmacokinetic Studies 121
- Monnujan Nargis, Md. Saiful Islam, Fatima Naushin and Syed Shabbir Haider** - Development of Sustained Release Preparations of Metoclopramide Hydrochloride Based on Fatty Matrix 129
- Irin Dewan, Ananta Saha, S.M. Ashraful Islam, Mahjabeen Gazi, Tasnuva Amin and Sayeeda Fahmee Chowdhury** - Study and Evaluation of Release Kinetics of Tramadol HCl from Lipid Based Sustained Release Capsules by Melt Matrix 137
- Shovan Paul, Sharmin Akhter, Ikramul Hasan, Syed Shabbir Haider and Md. Selim Reza** - Encapsulation of Naproxen in Eudragit RSPO Microsphere System: *In vitro* Characterization and Compatibility Studies 147
- Md. Akteruzzaman, Asma Rahman, Md. Zakir Sultan, Farhana Islam, Md. Abdus Salam and Mohammad A. Rashid** - Development and Validation of a Simple RP-HPLC Method for Simultaneous Estimation of Metformin Hydrochloride and Rosiglitazone in Pharmaceutical Dosage Forms 157
- Kulsum Ara, Mohammad R. Haque, Mohammad A. Kaiser, A.H.M.M. Rahman, Choudhury M. Hasan and Mohammad A. Rashid** - A New Diarylheptanoid from *Garuga pinnata* Roxb. 165

Rim Sabrina Jahan Sarker, Nazmul Ahsan and Anwarul Azim Akhand - Sodium Arsenite Induced Systemic Organ Damage and Changes in Various Blood Parameters in Mice	169
Shib Sankar Saha, Mehrina Nazmi, Nandini Saha and Md. Selim Reza - Preparation and Evaluation of Carbamazepine Sustained Release Tablets	173
Sheikh Tasnim Jahan, Sams Mohammad Anowar Sadat, Muhammad Rashedul Islam, A.T.M. Zafrul Azam and Jakir Ahmed Chowdhury - Effect of Various Electrolytes on Theophylline Loaded Sodium Alginate Beads Prepared by Ionic Cross Linking Technique	181
Ishrat Nimmi, Ismet Ara Jahan, M. Hemayet Hossain, Mohammad Burhan Uddin, M. Sohel Rana and Muhammad Mahbubul Haq - A Comparative Study on Antioxidant Properties of Two <i>Phyllanthus</i> Species Growing in Bangladesh	191

The Dhaka University Journal of Pharmaceutical Sciences

(Dhaka Univ. J. Pharm. Sci.)

Vol. 11

No. 1

June, 2012

CONTENTS

Md. Abdullah Al Masum, Florida Sharmin, S. M. Ashraful Islam and Md. Selim Reza - Enhancement of Solubility and Dissolution Characteristics of Ibuprofen by Solid Dispersion Technique	1
Neeraj Upmanyu, Sanjay Kumar, Kamal Shah and Pradeep Mishra - Synthesis and Antimicrobial Studies of Some 4-(Substituted)-Ethanoylamino-3-Mercapto-5-(4-Substituted)-Phenyl-1,2,4-Triazoles	7
M. S. Hossain, S. Sokeng, M. Shoeb, K. Hasan, M. Mosihuzzaman, N. Nahar, L. Ali, and B. Rokeya - Hypoglycemic effect of <i>Irvingia gabonensis</i> (Aubry-Lacomate Ex. Ororke), Baill in Type 2 Diabetic Long-Evans rats	19
Nazmul Ahsan, Nilanjana Paul, Nazrul Islam and Anwarul A. Akhand - Leaf Extract of <i>Syzygium cumini</i> Shows Anti- <i>Vibrio</i> Activity Involving DNA Damage	25
Mohammad Abu Taher Rasel and Moynul Hasan - Formulation and Evaluation of Floating Alginate Beads of Diclofenac Sodium	29
Abul Kalam Lutful Kabir, Shimul Halder, Madhabi Lata Shuma and Abu Shara Shamsur Rouf - Formulation Development and <i>in vitro</i> Evaluation of Drug Release Kinetics from Sustained Release Aceclofenac Matrix Tablets using Hydroxypropyl Methyl Cellulose	37
Ahmad Tanwir, Rahat Jahan, Mohiuddin Abdul Quadir, Mohammad A. Kaisar and Md. Khalid Hossain - Spectroscopic Studies of the Interaction between Metformin Hydrochloride and Bovine Serum Albumin	45
Md. Enamul Haque, Afrin Sultana, Biazid Alam Shibib and Md. Mirazul Islam - Antimicrobial, Antioxidant and Cytotoxic Activities of <i>Callistemon citrinus</i> (Curtis) Skeels	51
Maizbha Uddin Ahmed, Mohammad Safiqul Islam, Tasmin Ara Sultana, A.G.M. Mostofa, Muhammad Shahdaat Bin Sayeed, Zabun Nahar and Abul Hasnat - Quantitative Determination of Azithromycin in Human Plasma by Liquid Chromatography–Mass Spectrometry and its Application in Pharmacokinetic Study	55
Md. Torequl Islam, Mohammed Ibrahim, Md. Qamrul Ahsan, M. Mohi Uddin Chowdhury, Md. Aslam Hossain and Mohammad A. Rashid - Phytochemical and Pharmacological Investigations of <i>Uraria lagopodias</i> DC. and <i>Urena lobata</i> L.	65
Tasnuva Sharmin, Farhana Islam, Mohammad Abul Kaisar, Md. Gias Uddin and Mohammad A. Rashid - Antioxidant, Thrombolytic and Cytotoxic Activities of <i>Picrasma javanica</i>	71
Short communications	
Sadia Shermin, Fahima Aktar, Monira Ahsan and Choudhury M. Hasan - Antioxidant and Cytotoxic Activities of <i>Limonia acidissima</i> L.	75

**Volume 11, Number 2
December, 2012**

**Volume 11, Number 2
December, 2012**

Vol. 11, No. 2 December, 2012

**ISSN: 1816-1820 (Print version)
1816-1839 (Online version)**

**ISSN: 1816-1820 (Print version)
1816-1839 (Online version)**

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 and short communications that make substantial and scholarly contributions to any areas of pharmaceutical sciences.

Manuscripts should be in English, type-written or 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 10 pages in case of full papers and four 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.

Acknowledgments. 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. Mabry, T., Markham, K.R. and Thomas, M.B. 1971. *The Systematic Identification of Flavonoids*. Springer Verlag, New York, p. 43.
4. 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.
5. Hasan, C.M. 1982. Phytochemical studies on some African Annonaceae. Ph. D. Thesis, University of Strathclyde, U.K., p. 35.

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 Chem Draw 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, 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 and Reprints. 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.** Corresponding author will receive 25 reprints free of charge.

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. Correspondences regarding any submitted or accepted papers and proofs should be directed to the editorial office.

Phone: 9661920-73/8133, Fax: 880-2-8615583,

E-mail: dujps_du@yahoo.com,

Web: www.dujps.com; www.pharmadu.net