

Zobaer Al Mahmud

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Scholastic Record:

- **Doctor of Philosophy[Ph.D.]** in Molecular Cells and System Biology [2015-2019] Institute of Molecular Cell and Systems Biology, College of Medical Veterinary and Life Sciences, University of Glasgow, Scotland, United Kingdom.

Supervisor: Professor Graeme Milligan

Thesis title: Defining ligand binding modes of the orphan G protein-coupled receptor GPR84

- **Master of Pharmacy [M. Pharm]**

[2007-08] Department of Clinical Pharmacy and Pharmacology, Faculty of Pharmacy, University of Dhaka, Dhaka, Bangladesh.

Position: First class 1st (marks obtained **82.2%**)

M. Pharm. Thesis

Thesis Supervisor: Professor Dr. Nazmul Qais, Dept. of Clinical Pharmacy & Pharmacology, University of Dhaka.

Thesis title: Chemical and Pharmacological Investigation of *Leea macrophylla* (Roxb) & “*Premna esculenta* (Roxb.)

- **Bachelor of Pharmacy [B. Pharm]**

[2004 - 2007] Faculty of Pharmacy, University of Dhaka, Dhaka, Bangladesh.

Position: First class 1st (marks obtained **78.92 %**)

- **Higher Secondary School Certificate Examination [H.S.C.]**

Board of Intermediate & Secondary Education

[2002-2003], Dhaka College, Dhaka

CGPA: 4.60 out of 5.00

- **Secondary School Certificate Examination [S.S.C.]**

Board of Intermediate & Secondary Education

[2000-2001] Lakshmipur Adarsho Samad Govt. High School, Lakshmipur

CGPA: 4.88 out of 5.00

Teaching Experience:

- **June 29, 2022 – Present**
Department of Clinical Pharmacy and Pharmacology, Faculty of Pharmacy, University of Dhaka, Bangladesh
Associate Professor

- **June 22, 2014 – Present**
Department of Clinical Pharmacy and Pharmacology, Faculty of Pharmacy, University of Dhaka, Bangladesh
Assistant Professor
- **December 11, 2011- June 21, 2014**
Department of Clinical Pharmacy and Pharmacology, Faculty of Pharmacy, University of Dhaka, Bangladesh
Lecturer
Major responsibilities are teaching (Basic Anatomy, Pharmacology, Physiology, Molecular Pharmacology, and Toxicology), supervising thesis and research students and student advising.
- **July 3, 2012- December 3, 2012**
Department of Pharmacy, East West University, Bangladesh
Lecturer

Major responsibilities were teaching (Medicinal Chemistry, Pharmacology, Physical Chemistry, Organic Chemistry, Biopharmaceutics) and supervising thesis students.

Research Skills:

- Hands-on experience in molecular biology and cell biology techniques including cell culture, functional assays, radioligand binding assays etc
- Comprehensive understanding of pharmacological assays and techniques on GPCR signaling

Research interest: GPCR Pharmacology, Natural Product Pharmacology

Research Articles:

1. Marsango, S., Ward, R.J., Jenkins, L., Butcher, A.J., **Mahmud, Z.A.**, Dwomoh, L., Nagel, F., Schulz, S., Tikhonova, I.G., Tobin, A.B. and Milligan, G. (2022) Selective phosphorylation of threonine residues defines GPR84-arrestin interactions of biased ligands. *J Biol Chem.* 101932. doi: 10.1016/j.jbc.2022.101932. Epub ahead of print. PMID: 35427647.
2. Akter, F., Bhuiya, N.M., Hasan, N., Rokeya, B., Raihan, S.Z. and **Mahmud, Z.A.** (2022) Cocos Nucifera Endocarp Extract Exhibits Anti-diabetic and Antilipidemic Activities in Diabetic Rat Model. *Int J Sci Res Dent Med Sci.* 4(1):8-15.
3. Jenkins, L., Marsango, S., Mancini, S., **Mahmud, Z.A.**, Morrison, A., McElroy, S.P., Bennett, K.A., Barnes, M., Tobin, A.B., Tikhonova, I.G., and Milligan, G. (2021) Discovery and Characterization of Novel Antagonists of the Proinflammatory Orphan Receptor GPR84. *ACS Pharmacol Transl Sci.* 4(5): 1598–1613.
4. Brishty, S. R., Saha, P., **Mahmud, Z. A.** and Rahman, S. A. (2020). Synthesis and Evaluation of Analgesic and Antioxidant Activities of Substituted Benzimidazole Derivatives. *Dhaka Univ J Pharm Sci.* 19(1): 37-46.

5. Islam, M.M., Parvin, E.S., Zahir, R.S. and **Mahmud, Z.A.** (2020) Methanolic extracts and different fractions of whole plants of *Leucas zeylanica* show promising analgesic and antioxidant activities. *Egypt Pharmaceut J.* 19: 260-5.
6. Mancini, S.J., **Mahmud, Z.A.**, Jenkins, L., Bolognini, D., Newman, R., Barnes, M., Edye, M.E., McMahon, S.B., Tobin, A.B. and Milligan, G. (2019) On-target and off-target effects of novel orthosteric and allosteric activators of GPR84. *Sci Rep.* 9(1):1861.
7. Uddin, M.M.N., Kabir, M.SH., Hasan. M., **Mahmud, Z.A.**, Alam Bhuiya, N.M.M., Ahmed, F., Hasan, M.R., Hosen, M.T. and Alam, M.S. (2018) Assessment of the antioxidant, thrombolytic, analgesic, anti-inflammatory, antidepressant and anxiolytic activities of leaf extracts and fractions of *Tetracera sarmentosa* (L.) Vahl. *J Basic Clin Physiol Pharmacol.* 29(1):81-93.
8. **Mahmud, Z.A.**, Jenkins, L., Ulven, T., Labégère, F., Gosmini, R., De Vos, S., Hudson, B.D., Tikhonova, I.G. and Milligan, G. (2017) Three classes of ligands each bind to distinct sites on the orphan G protein-coupled receptor GPR84. *Sci Rep.* 7(1):17953.
9. **Mahmud, Z.A.**, Bachar, S.C., Hasan, C.M., Emran, T.B., Qais, N. and Uddin, M.M.N. (2017) Phytochemical investigations and antioxidant potential of roots of *Leea macrophylla* (Roxb.). *BMC Res Notes.* 10(1):245.
10. Bhuiya, N.M., Hasan, M., **Mahmud, Z.A.**, Qais, N., Kabir, M.S., Ahmed, F. and Uddin, M.M. (2017) In vivo analgesic, antipyretic and anti-inflammatory potential of leaf extracts and fractions of *Eria javanica*. *J Complement Integr Med.* 14(1).
11. Sukul, A., Poddar, S.K., Haque, S., Saha, S.K., Das, S.C., **Mahmud, Z.A.** and Abdur Rahman, S.M. (2017) Synthesis, Characterization and Comparison of Local Analgesic, Anti-Inflammatory, Anti-Ulcerogenic Activity of Copper and Zinc Complexes of Indomethacin. *Antiinflamm Antiallergy Agents Med Chem.* 15(3):221-233.
12. Sultan, R.A., Kabir, M.S.H., Uddin, M.M.N., Uddin, M., **Mahmud, Z.A.**, Raihan, S.Z. and Qais, N. (2017) Ethnopharmacological investigation of the aerial part of *Phragmites karka* (Poaceae). *J Basic Clin Physiol Pharmacol.* 28(3):283-291.
13. Hasan, M.S., Das, N., **Mahmud, Z.A.** and Abdur Rahman, S.M. (2016) Pharmacological Evaluation of Naproxen Metal Complexes on Antinociceptive, Anxiolytic, CNS Depressant, and Hypoglycemic Properties. *Adv Pharmacol Sci.* 2016:3040724.
14. Ganguly, A., **Mahmud, Z.A.**, Kumar Saha, S., Abdur Rahman SM. (2016) Evaluation of antinociceptive and antidiarrhoeal properties of *Manilkara zapota* leaves in Swiss albino mice. *Pharm Biol.* 54(8):1413-9.
15. Das, N., Goshwami, D., Hasan, M.S., **Mahmud, Z.A.** and Raihan, S.Z. (2016) Evaluation of antioxidant, antimicrobial and cytotoxic activities of *Terminalia citrina* Leaves. *J Pharm Res.* 10(1),8-15.

16. **Mahmud, Z.A.**, Emran, T.B., Qais, N., Bachar, S.C., Sarker, M. and Uddin, M.M. (2016) Evaluation of analgesic, anti-inflammatory, thrombolytic and hepatoprotective activities of rootsof Premna esculenta (Roxb). *J Basic Clin Physiol Pharmacol.* 27(1):63-70.
17. Das, N., Hasan, M.S., **Mahmud, Z.A.** and Raihan, S.Z. (2016) Evaluation of anti-diarrheal, central nervous (CNS), hypoglycemic and thrombolytic activities of methanolic extract of Terminalia citrina leaves. *World J Pharm Res.* 5(7):795-805.
18. Shihan, M., **Mahmud, Z.A.**, Qais, N., and Riaz, M. (2015). Pharmacological Evaluation of Stem Bark of Callicarpa arborea Roxb. *Dhaka Univ J Pharm Sci.* 14(1),:111-116.
19. Das, N., Goshwami, D., Hasan, M.S., **Mahmud, Z.A.**, Raihan, S.Z. and Sultan, M.Z. (2015) Evaluation of antinociceptive, anti-inflammatory and anxiolytic activities of methanolic extract of Terminalia citrina leaves. *Asian Pac J Trop Dis.* 5:S137-S141.
20. Chowdhury, M.Z., **Mahmud, Z.A.**, Ali, M.S. and Bachar, S.C. (2014) Phytochemical and pharmacological investigations of rhizome extracts of Kaempferia galanga. *Int J Pharmacogn.* 1(3):185-92.
21. Rahman, E.T., Raihan, S.Z., **Mahmud, Z.A.** and Qais, N. (2014) Analgesic activity of methanol extract and its fractions of Streblus asper (Lour.) roots. *World J Pharm Res.* 3:18-24.
22. Ganguly, A., **Mahmud, Z.A.**, Uddin, M.M.N. and Rahman, S.M.A. (2013) In-vivo anti-inflammatory and anti-pyretic activities of Manilkara zapota leaves in albino Wistar rats. *Asian Pac J Trop Dis.* 3(4):301-307.
23. Shams-Ud-Doha, K.M., **Mahmud, Z.A.**, Bachar, S.C. and Qais, N. (2013) Antinociceptive, anti-inflammatory, antimicrobial and central nervous system depressant activities of ethanolic extract of leaves and roots of Gomphostemma parviflorum var. parviflorum wall. *Phcog Res.* 5(4):233-40.
24. Islam, M.A., **Mahmud, Z.A.**, Rahman, S.M.A., Md. Moniruzzaman and Saha S.K. (2013) Evaluation of Thrombolytic activity and Brine Shrimp Lethality Bioassay of Methanol extract of stems of Tinospora crispa. *Int J Pharm Sci Res.* 4(3):1148-1153.
25. **Mahmud, Z.A.**, Bachar, S.C. and Qais, N. (2012) Antioxidant and hepatoprotective activities of ethanolic extracts of leaves of Premna esculenta roxb. against carbon tetrachloride-induced liver damage in rats. *J Young Pharm.* 4(4):228-34.
26. Pal, A., **Mahmud, Z.A.**, Akter, N., Islam, S. and Bachar, S.C. (2012) Evaluation of antinociceptive, antidiarrheal and antimicrobial activities of leaf extracts of Clerodendrum indicum. *Pharmacogn J.* 4(30):41-46.
27. Shams-Ud-Doha, K.M., Akter, M., **Mahmud, Z.A.**, Apu, A.S., and Howlader, M.A. (2012) Antinociceptive activity of the methanol extracts of leaves of Eugenia fruticosa (Roxb.) and Glycosmis pentaphylla (Retz.) in Swiss albino mice . *J Appl Pharm Sci.* 2(4):99-102.

28. Sarker, M., Das, S.C., Saha, S.K., **Mahmud, Z.A.**, and Bachar, S.C. (2012) Analgesic and Anti-inflammatory Activities of Flower Extracts of *Punica granatum* Linn. (Punicaceae). *J Appl Pharm Sci.* 2(4):133-136.
29. Sarker, M., **Mahmud, Z.A.**, Saha, S.K., Tithi, N.S., Ali, M.S. and Bachar, S.C. (2012) Antihyperlipidemic Activity of Flowers of *Punica granatum* in Poloxamer-407 Induced Hyperlipidemic Mice Model. *Pharmacogn J.* 4(27):66-70.
30. **Mahmud, Z.A.**, Bachar, S.C. and Qais, N. (2011) Antihyperlipidemic activity of leaf and root extracts of *Premna esculenta* (Roxb.) in Poloxamer-407 induced hyperlipidemic mice and rats. *Orient Pharm Exp Med.* 11:263-270.
31. Qais, N., **Mahmud, Z.A.**, Karim M.R. and Bachar, S.C. (2011) Anti-nociceptive, Anti-inflammatory and Sedating Activities of Leaf Extracts of *Premna esculenta* (Roxb.). *J Pharm Res.* 4(10):3463-3465.
32. **Mahmud, Z.A.**, Bachar, S.C. and Qais, N. (2011) Evaluation of anti-nociceptive activity and brine shrimp lethality bioassay of roots of *Leea macrophylla* Roxb. *Int J Pharm Sci.* 2(12):3230-3234.

Poster Presentation:

Mahmud, Z.A., Jenkins, L. and Milligan, G. (2018) ‘Allosteric modulation of the orphan G-protein coupled receptor GPR84’
British Pharmacological Society 7th Focused Meeting on Cell Signalling
16–17 April 2018, University of Nottingham, Nottingham, UK

Scholarships / Fellowship/Awards/Grants:

Scholarship:

- Commonwealth Scholarship for PhD in University of Glasgow (2015)
- UGC Merit Scholarship for B. Pharm (Hons.) result. (2007)
- National Merit Scholarship for Higher Secondary result (2003-2007)
- Sumitomo Corporation Merit Scholarship (2003-2007)
- Bangladesh American Pharmacist Association merit scholarship (2003-2007)
- Junior Scholarship (1998)
- Primary Scholarship (1995)

Awards:

- Dean’s Award for extraordinary result in B. Pharm (Hons.) Examination. (2008)
- ACI Abdul Mukit Gold Medal for B. Pharm (Hons.) Result. (2008)
- Writer Sarder Joyen-Uddin Gold Medal for academic excellence in B. Pharm. examination (2009)
- National Science and Information & Communication Technology Fellowship (NSICT)” by the Bangladesh government for M.Pharm. research.
- National Gold Medalist in Comprehensive writing, 2000 on the topics “Liberation War in my Locality”

References:

- **Professor Graeme Milligan**

Deputy Head of College/Gardiner chair of Biochemistry (Institute of Molecular Cells and Systems Biology) and Dean of Research (MVLSS College Senior Management)

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- **Professor Dr. Nazmul Qais**

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