# **Fahad Imtiaz Rahman**

9/1 & 9/2, Road 01, Shyamoli, Dhaka-1207, Bangladesh Google Scholar Profile | ResearchGate



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#### ACADEMIC BACKGROUND

- Master of Pharmacy | July 2015 June 2016
   University of Dhaka | Major: Clinical Pharmacy and Pharmacology
   CGPA 4.00/4.00 (Placed 1<sup>st</sup> in class)
- Bachelor of Pharmacy | July 2010 June 2015
   University of Dhaka | Major: Pharmaceutical Sciences
   CGPA 3.95/4.00 (Placed 1st in class)
- *Higher Secondary Certificate* | Passing Year 2010 Notre Dame College | Dhaka Board (Science) GPA 5.00 (out of 5.00)
- Secondary School Certificate | Passing Year 2008
   St. Joseph Higher Secondary School | Dhaka Board (Science)
   GPA 5.00 (out of 5.00)

#### RESEARCH INTERESTS

- *Medicinal chemistry:* Mastering advanced methods and approaches of discovering new therapeutic molecules.
- *Computational biology:* Learning advanced molecular docking and structure optimization techniques to understand the pharmacodynamics of potential lead compounds by predicting drug-receptor interactions.
- *Cell Biology/ Chemical Physiology*: Utilizing sophisticated cell culture techniques and analyzing chemical physiology for researching cancer, Alzheimer, cardiovascular diseases etc.
- *Pharmacology and Toxicology:* Performing pharmacological and toxicological assay of potential lead compounds using various *in vitro* cellular models and *in vivo* animal models.
- *Microbiology*: Unravelling novel pathophysiology of viral diseases such as dengue, zika, SARS-CoV-2, Ebola etc.

#### RESEARCH EXPERIENCE

# M.Pharm Thesis (June 2016-July 2017) / Role: Master's Research Student at University of Dhaka

• Synthesis and evaluation of *in vivo* pharmacological activities of ribofuranose derivatives as potential antiinflammatory agents and analgesics. | *Mentor*: Prof. Dr. S.M. Abdur Rahman (Google Scholar)

# Research at University of Dhaka (June 2019-July 2020) | Role: Co-Investigator

• Computational modeling and molecular dynamic simulation study of novel α-D-ribofuranose derivatives with potent anti-inflammatory and analgesic activity. | *Mentor*: Prof. Dr. S.M. Abdur Rahman

# Research at University of Asia Pacific (April 2018-Dec 2020) | Role: Co-Investigator / Principal Investigator

- Studying medication understanding and health literacy of multimorbidity patients.
- Comparative *in vitro* quality and bioequivalence determination of different brands of local generic tablets.



• Systematic review on traditional uses, phytochemistry, and pharmacology of Zanthoxylum rhetsa (Roxb.) *Mentor:* Dr. Monira Ahsan (Google Scholar)

# Research at University of Dhaka (Jan 2021-Present) | Role: Co-Investigator

- Synthesis, in vivo and in silico pharmacological activity evaluation of potent α-chloralose derivatives. *Mentor*: Prof. Dr. S.M. Abdur Rahman
- Systematic review of natural diterpenes and diterpenoids with potent antimicrobial properties. *Mentor*: Prof. Dr. S.M. Abdur Rahman
- Cross-sectional survey to assess the knowledge, attitude and practice levels against COVID-19 variants among Bangladeshi population. | *Mentor*: Dr. Md. Rabiul Islam (Google Scholar)
- Assessing the side effects following administration of Oxford-AstraZeneca's Covishield vaccine in Bangladesh. *Mentor*: Dr. Md. Nur Haque Alam (<u>Profile</u>)
- Reviewing the Delta-plus COVID-19 variant and other public health concerns during COVID-19 pandemic. *Mentor*: Dr. Md. Rabiul Islam

#### **PUBLICATIONS**

### Research Articles

- 1. Spriha, S.E., **Rahman, F.I.** and Rahman, S.A., (2021). Synthesis, in vivo and in silico analgesic and anti-inflammatory studies of α-D-ribofuranose derivatives. *Saudi Pharmaceutical Journal*, 29(9), pp.981-991. [PubMed]
- 2. Jahan, N., **Rahman, F. I.**, Saha, P., Ether, S. A., Roknuzzaman, A. S. M., Sarker, R., ... & Alam, N. H. (2021). Side Effects Following Administration of the First Dose of Oxford-AstraZeneca's Covishield Vaccine in Bangladesh: A Cross-Sectional Study. *Infectious Disease Reports*, *13*(4), 888-901. [PubMed]
- 3. Monisha, S. T., Ela, K. N., Islam, R., Ether, S. A., & **Rahman, F. I.** Quality Attributes Comparison of Selected Brands of Rosuvastatin Calcium Tablets Marketed in the US and Bangladesh. *Journal of Pharmaceutical Research International*, 33(39A), pp. 46-55. [Link]
- 4. Aziz, F., **Rahman, F.I.**, Huque, S., Ether, S.A., Hasan, C.M., Ahsan, M. (2022) Zanthoxylum rhetsa (Roxb.) DC: A systematic review on traditional uses, phytochemistry, and pharmacology. *Journal of Pharmacy & Pharmacognosy Research* 10(1): 52–72. [Link]
- 5. **Rahman, F. I.**, Hussain, F., Saqueeb, N., & Rahman, S. A. (2020). Synthesis and evaluation of pharmacological activities of some 3-O-benzyl-4-C-(hydroxymethyl)-1, 2-O-isopropylidene-α-D-ribofuranose derivatives as potential anti-inflammatory agents and analgesics. *Research in Pharmaceutical Sciences*, *15*(3), 209. [PubMed]
- 6. **Rahman, F. I.**, Aziz, F., Huque, S., & Ether, S. A. (2020). Medication understanding and health literacy among patients with multiple chronic conditions: A study conducted in Bangladesh. *Journal of Public Health Research*, 9(1). [PubMed]
- 7. Saha, P., **Rahman, F. I.**, Hussain, F., Rahman, S. A., & Rahman, M. (2022). Antimicrobial Diterpenes: Recent Development From Natural Sources. *Frontiers in Pharmacology*, *12*(Art. 820312).
- 8. Ether, S. A., Emon, F. A., Roknuzzaman, A. S. M., Rakibuzzaman, M., Rahman, F. I., & Islam, M. R. (2022). A cross-sectional study of COVID-19-related knowledge, risk perceptions, and preventive practices among pharmacy students in Bangladesh. *SAGE Open Medicine*, *10*, 20503121211073014.
- 9. Hussain, F., Saha, P., **Rahman, F. I**., Hossain, M. S., & Rahman, S. A. (2021). In vivo and in silico Evaluation of Analgesic and Hypoglycemic Activities of Roots of Acacia nilotica, Azadirachta indica and Justica adhatoda. *Dhaka University Journal of Pharmaceutical Sciences*, 20(2), 185-197.

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## Letter to Editors

- 10. **Rahman, F. I.,** Ether, S. A., & Islam, M. R. (2021). The "Delta Plus" COVID-19 variant has evolved to become the next potential variant of concern: mutation history and measures of prevention. *Journal of Basic and Clinical Physiology and Pharmacology*. [PubMed]
- 11. **Rahman, F. I.,** Islam, M. R., & Bhuiyan, M. A. (2021). Mucormycosis or black fungus infection is a new scare in South Asian countries during the COVID-19 pandemic: Associated risk factors and preventive measures. *Journal of Medical Virology*. [PubMed]
- 12. **Rahman, F. I.**, & Islam, M. R. (2021). Sexual violence against woman at quarantine center during coronavirus disease 2019 in Bangladesh: Risk factors and recommendations. *Women's Health*, 17. [PubMed]
- 13. **Rahman, F. I.**, Ether, S. A., & Islam, M. R. (2021). The growing rape incidences seems an epidemic turn of sexual violence in Bangladesh: A letter to the editor. *Women's Health*, *17*, 17455065211063285.
- 14. **Rahman, F. I.**, Ether, S. A., & Islam, M. R. (2022). Upsurge of Dengue Prevalence During the Third Wave of COVID-19 Pandemic in Bangladesh: Pouring Gasoline to Fire. *Clinical Pathology*, *15*, 2632010X221076068.

## RESEARCH SKILLS

- *Medicinal Chemistry:* Efficient at designing synthesis schemes and performing reactions, purifying compounds using column chromatography and identifying compounds using TLC, FT-IR and NMR techniques.
- *Pharmacology and Toxicology:* Experienced in conducting *in vitro* assays such as DPPH antioxidant assay, cell viability assay, antibiotic susceptibility testing and *in vivo* assays such as hypoglycemic assay on diabetic rats, several analgesic and anti-inflammatory assays.
- *Computational Biology:* Capable of operating instruments such as UV-VIS spectrophotometer, rotary evaporator, and using advanced computational chemistry software such as Gaussian®, Chemdraw®, SciFinder®, PyRx®, PyMol® and Discovery Studio® Visualizer.
- *Biostatistics*: Capable of basic statistical analysis including utilization of tools of inferential statistics (*t*-test, Z-test, ANOVA, chi-square test, and several rank correlations tests).
- Systematic Reviews: Experienced in conducting systematic reviews using PRISMA protocols on various medicinal chemistry topics

# **WORK EXPERIENCE**

- Faculty (Lecturer) | (Jan 2021 Present)
  Department of Clinical Pharmacy and Pharmacology | University of Dhaka.
- Faculty (Lecturer) / (May 2018 Dec 2020)
   Department of Pharmacy | University of Asia Pacific.

Academic responsibilities include giving lectures, taking lab courses, proctoring exams, curriculum mapping and enhancement. Non-academic responsibilities include enhancement of technical facilities at the department, organizing programs, convening club activities.

Courses Conducted so far: Medicinal Chemistry, Pharmacology I, Pathology, Advanced Pharmacology, Clinical Pharmacy, Pharmacy, Pharmacy, Practice, Drug Use Management etc.

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#### **INTERNSHIPS and TRAINING**

• Hospital training | (July 2015 - Dec 2015)

Dhaka Medical College Hospital, Bangladesh.

Training involved observing treatment patterns of different patients, communicating with them and communicating with physicians regarding use of certain drugs.

• Industrial training | (Feb 2015 - Mar 2015)

Novartis Bangladesh Limited.

Training involved observation of activities carried out in principal departments of manufacturing plants and gaining practical experience on HPLC, FTIR, Potentiometer, Karl-Fischer apparatus, Dissolution tester etcetera.

### **OTHER SKILLS**

- *Chemistry Package:* Proficient in chemistry software packages specially ChemOffice (Perkin Elmer, USA)
- *Microsoft Office:* Experienced in advanced word processing and presentation-making software (MS Word, MS PowerPoint).
- *Statistical Tools:* Experienced in basic spreadsheet analysis and statistical analysis (MS Excel, SPSS, and Google Spreadsheet).
- *Graphics:* Capable of basic graphics editing and design (Adobe Photoshop, GIMP, Google Sketchup).

#### **AWARDS and HONORS**

- *Dean's Award* | Feb 2019
  - Awarded for the highest CGPA in undergraduate Bachelor of Pharmacy program 2015
- Bangladesh Pharmaceutical Society (BPS) Gold Medal | Feb 2019
   Awarded for the highest CGPA in undergraduate Bachelor of Pharmacy program 2015
- Prime Minister Gold Medal | March 2018

Awarded for extraordinary results among nationwide undergraduate program 2015

- National Science and Technology (NST) Research Fellowship | Jan 2018 Awarded for excellent research among nationwide Graduate programs
- Presidential Gold Medal | March 2017

Awarded for the highest CGPA in undergraduate Bachelor of Pharmacy program 2015

• *UGC Scholarship* | July 2016

Awarded for the highest CGPA in undergraduate Bachelor of Pharmacy program 2015

• Trust Fund Scholarship | Feb 2016

Awarded for the highest CGPA in undergraduate Bachelor of Pharmacy program 2015

Badrunnesa Gafur Memorial Trust Scholarship | Jan 2011, 2012 & 2014
 Awarded for obtaining the highest GPA in 1<sup>st</sup>, 2<sup>nd</sup> and 4<sup>th</sup> semesters of Bachelor of Pharmacy

## STANDARDIZED TEST SCORES

- *GRE* (*General*): Verbal- **159** (82<sup>nd</sup> percentile), Quant- **162** (78<sup>th</sup> percentile), AWA-4.0
- TOEFL (iBT): Total Score: 117 | Reading: 29, Listening: 30, Speaking: 30, Writing: 28



# **EXTRA-CURRICULAR ACTIVITIES**

- Coordinator of Photography Club | May 2018 to Dec 2020 Department of Pharmacy, University of Asia Pacific
- *Organizer* of various programs such as annual picnic, fresher's reception and farewell ceremony, seminars, and cultural programs at Department of Pharmacy, University of Asia Pacific.
- *Organizer* of study tour, orientation and festival programs as a graduate student at Department of Clinical Pharmacy and Pharmacology, University of Dhaka.

#### REFERENCES

Professor Dr. S.M. Abdur Rahman Chairman, Department of Clinical Pharmacy and Pharmacology University of Dhaka

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 Department of History

> University Of Dhaka Contact no: +88029668415

I hereby declare that the details and information given above are complete and true to the best of my knowledge. I take full responsibility for the correctness of the said information.

Date: 22/04/2022

Fahad Imtiaz Rahman