

H. M. Shadid Hossain Snigdha

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in Shadid Hossain Snigdha

Google Scholar

Academic Qualification

Department of Pharmacy, University of Rajshahi, Bangladesh

2013 – 2014

Master of Pharmacy (M. Pharm. Thesis)

Thesis Title: Studies on the Biological Activity of the Seed Extracts of *Aphanamixis polystachya* (Wall.) Parker.

Department of Pharmacy, University of Rajshahi, Bangladesh.

2009 – 2012

Bachelor of Pharmacy (B. Pharm.)

Publications

1. **Snigdha, H. M. Shadid Hossain**, Islam, Md. Mohaiminul, Rouf, Razina, Hasan, Md. Sakib Al, Islam, Md. Torequl, Shilpi, Jamil A., Uddin, Shaikh Jamal, *Hepatoprotective Effects of Mangrove Plant Species of the Sundarbans and Their Bioactive Metabolites: A Comprehensive Review With Mechanistic Insights*, *Journal of Food Biochemistry*, 2026, 4030443, 21 pages, 2026. <https://doi.org/10.1155/jfbc/4030443>
2. Sah, M., Das, B., Mandal, R. K., Chowdhury, R., Alshahrani, M. Y., Khan, M. A., Saha, A. K., Chak, U. C. A., Akhter, S., Nikson, M. F. A., Mohanta, S., **Snigdha, H. M. Shadid Hossain**, Islam, M. T., Chakrabarty, A., & Al Hasan, M. S. (2026). Anxiolytic-like effects of *p*-coumaric acid via GABAergic interaction pathways: An in vivo and in silico study. *Naunyn-Schmiedeberg's Archives of Pharmacology*, 399, 11845–11860. <https://doi.org/10.1007/s00210-026-05119-w>
3. Shikdar, M. E., **Snigdha, H. S. H.**, Islam, M. M., Akbor, M. S., Rahman, S., Debnath, P. K., ... amp;Uddin, S. J. (2025). Antipsychotic Effect of *Aegiceras corniculatum* (L.) Blanco: Evidence from Murine Behavioral Assays and Computational Studies. *Pharmacological Research-Modern Chinese Medicine*, 100730. <https://doi.org/10.1016/j.prmcm.2025.100730>
4. Chowdhury, R., Bhuia, M. S., Al Hasan, **M. S., Hossain Snigdha, S.**, Afrin, S., Büsselberg, D., ... amp; Islam, M. T. (2024). Anticancer potential of phytochemicals derived from mangrove plants: Comprehensive mechanistic insights. *Food Science amp; Nutrition*, 12(9), 6174-6205. <https://doi.org/10.1002/fsn.3.4318>
5. Nun, F. K., Bahar, S. U., Al Hasan, M. S., Mia, E., Yana, N. T., Hossain, M. A., amp; **Snigdha, H. M.S. H.** (2025). Antioxidant Properties of Sundarban's Plants: Molecular Docking, Drug-likeness, Pharmacokinetics and Toxicological Profiles of Bio-active Phytochemicals. *Journal of Medicinal Chemistry and Therapeutics*, 1(01), 1-15. <https://doi.org/10.71193/jmct.20250005>
6. **Snigdha, H. S. H.**, Haque, E., Islam, T., amp; Mostakim, S. (2024). Rudimentary phytochemical screen-ing and in vivo exploration of brawny hypoglycemic potency of *Aphanamixis Polystachya* (Wall.) parker seed extractives. <https://doi.org/10.70411/mjhas.1.1.2024129>
7. Islam, M. T., Hasan, J., **Snigdha, H. S. H.**, Ali, E. S., Sharifi-Rad, J., Martorell, M., amp; Mubarak, M. S. (2020). Chemical profile, traditional uses, and biological activities of *Piper chaba* Hunter: A review. *Journal of ethnopharmacology*, 257, 112853. <https://doi.org/10.1016/j.jep.2020.112853>
8. Haque, M. E., Rahman, M. M., & **Hossain Snigdha, M. S.** (2020). Evaluation of in vitro anthelmintic and antifungal activity of different organic extracts of the seeds of *Aphanamixis polystachya* (Wall.). *EVALUATION*, 2, 281-292.
9. Ali, M. A., **Shadid, H. M., Snigdha, H.**, & Akter, M. R. (2018). Biological Evaluation of Ethanolic Extract of Leaves of *Spinacia Oleracea* Linn. *Int. J. Compr. Res. Biol. Sci*, 5(7), 23-30.
10. **Snigdha, H. S. H.**, Ali, R., & Ali, M. A. (2016). Comparative preliminary phytochemical and analgesic activity on methanolic extract of leaf and bark of *Aphanamixis polystachya* (Wall.) Parker. *Int. J. Adv. Multidiscip. Res*, 3(8), 1-5.
11. Ashrafuzzaman, M.D., Raju, G.S., Abeer, M.I.U., Seeam, S.M., Salahuddin, A.Z.M., Debnath, D., **Snigdha, H.M.**, Sawan, B.U. and Rana, S.M., 2016. Antidiarrheal activity of three medicinal plants in swiss albino mice. *International Journal of Biomedicine*, 6(3), pp.233-236.
12. **Snigdha, H. S. H.**, Ali, R., Das, D. K., amp; Wadud, M. A. (2016). Biological evaluation of ethanolic

Research Interests

Phytopharmacology, Traditional Medicine, Drug Discovery, Mangrove Plant-Based Therapeutics, Pharmacognosy, Antidiabetic Pharmacology, Nutritional Pharmacology, Antibiotic Resistance, Natural Product Chemistry

Research Experiences

Research Supervisor

1. Mechanistic Insights into the Pharmacological Potential of Roadside Plants of Bangladesh: A Review Study
2. From Cuisine to Medicine: Pharmacological Insights into Medicinal Spices of Bangladesh-A Review Study
3. Public Awareness and Practices Regarding Antibiotic Resistance in Bangladesh- Explored Public Knowledge, Attitudes, and Behavior Regarding Antibiotic Use and Misuse through Structured Questionnaire Surveys.
4. From Plate to Prescription: Therapeutic Potential and Pharmacological Mechanisms of Bangladeshi Vegetables - A Review Study.
5. A Study on the Awareness and Practices of Antidiabetic Patients in Bangladesh- a structured survey targeting diabetic patients across selected regions of Bangladesh to explore their awareness levels, daily practices, and perceptions related to diabetes management.
6. Comprehensive Pharmacological evaluation of different organic extracts of the plants of the Sundarbans
7. A Deep Dive into Student Health and Nutrition - Survey-based cross-sectional study focusing on food habits, disease prevalence, and lifestyle patterns among Bangladeshi university students.

Interational Conferences Attended

1. **MariNEX Symposium 2025**, Khulna University ; GIZ - Presented a poster on *In Vivo* and *In Silico* Study of Anxiolytic, Sedative, and Anti-Schizophrenic Activities of *Aegiceras corniculatum* (L.) Blanco Leaves: A Coastal Gem from Mangrove Ecosystems
2. **ICPHS 2024, University of Asia Pacific** - Presented a poster on *In Vivo* and *In Silico* Anxiolytic and Sedative Activities of Ethanol Extract of *Aegiceras corniculatum* (L.) Blanco Leaves.
3. **Biotechnology in Sustainable Development 2023, Khulna University** - Presented a poster on Neuro-protective and Hepatoprotective Screening of Sundarban Plant Extracts and Isolation and Structural Elucidation of Novel Bioactive Compounds from the Active Extract.

Work Experiences

Lecturer (Professional)

Department of Pharmacy, Life Science Faculty Gopalganj Science and Technology University

Gopalganj, Bangladesh
June 24, 2026 – Present

- Deliver lectures on fundamental pharmacy topics and supervise laboratory sessions.

Adjunct Lecturer (Professional)

Department of Pharmacy, Life Science Faculty Gopalganj Science and Technology University

Gopalganj, Bangladesh
March 23, 2017 – June 23, 2026

- Delivered lectures on core pharmacy topics, and conducted labs on pharmacological screening, phytochemical analysis, and pharmaceutical technology.
- Assessed student progress and mentored them to establish career goals, encouraging professional advancement and higher education in the pharmaceutical and research fields.

Visiting Lecturer (Professional)

Bangladesh Chemist and Druggist Samity

Gopalganj, Bangladesh
2021 – Present

- Hold lectures on pharmaceutical sciences, ethical responsibilities, drug regulations, dosage forms, prescription handling, antibiotic resistance, drug storage, and good pharmacy practices under the governance of **The Pharmacy Council, Bangladesh**.

- Mentored over **600 students**, many of whom are now successfully working as pharmacy technicians across Bangladesh.

Visiting Lecturer (Professional)

Bangladesh Chemist and Druggist Samity

Madaripur, Bangladesh

2017 – 2019

- Provided instructions and hands-on training to pharmacy technician students under The Pharmacy Council, Bangladesh-approved curriculum, covering key topics such as pharmacy history, laws, medication use, dispensing, and patient safety.
- Trained over **400 technicians**, many of whom are now employed in hospitals and retail pharmacies across Bangladesh.

Executive (Professional)

Product Development Department, Opsonin Pharma Limited

Barishal, Bangladesh

2015 – 2017

- Executed trial batches, designed novel dosage forms, validated formulations, and conducted stability testing to support product development and compliance.
- Assessed raw material sources, optimized outdated formulations, and reduced costs without compromising quality.
- Prepared master files and successfully formulated products such as **Urilit 1080 mg, Tiniril 16 mg, Amocal 10 mg, Ropitor 10 mg tablets, Diclofen 50 mg gel, and Renova 60 ml syrup**, ensuring regulatory compliance and high-quality standards.

Certifications

- **In-Plant Training Certificate** from Incepta Pharmaceuticals Ltd.
- **Certificate of Excellence in Peer Reviewing** for contributions to several journals, including the Asian Journal of Research in Botany, European Journal of Medicinal Plants, Asian Journal of Research in Crop Science, Bionature, International Journal of Biochemistry Research & Review, and Journal of Advances in Medical and Pharmaceutical Sciences.
- **Certificates of Excellence** for outstanding performance in various cultural and educational competitions organized by Shishu Academy and Shilpakala Academy, Bangladesh.

Internship & Seminar

- **Industrial Internship** at Incepta Pharmaceuticals Ltd. in 2013.
- Attended the seminar on “**Probiotics the micro-warrior of the 21 st century**” held at the University of Rajshahi, Rajshahi-6205.

Awards & Scholarships

- **Research Awards:**
1.National Science and Technology (NST) Fellowship, 2026. 2.National Science and Technology (NST) Fellowship, 2025. 3.University Grant Commission (UGC) Fellowship, 2025. 4.Bangabandhu Science and Technology Fellowship Trust Scholarship, 2024. 5.Research Scholarship, Khulna University,2023. 6.National Science and Technology (NST) Fellowship, 2015.
- **Academic Scholarships:**
Primary, Junior Secondary, and Higher Secondary School Certificate Scholarships.
- **Awards from National & Cultural Competitions:**
Recognized for outstanding achievements in various national competitions organized by respective ministries of the Government of Bangladesh, including those hosted by The Ministry of Cultural Affairs, The Ministry of Women and Children Affairs, The Ministry of Education, The Ministry of Primary and Mass Education, and The Ministry of Local Government, Rural Development, and Cooperatives. These honors reflect consistent excellence in diverse categories celebrated during national events and seasonal programs.

Technical Skills

A. Research & Laboratory Skills:

1. **Phytochemical Analysis:** Extraction and isolation of bioactive compounds from medicinal plants.
2. **In Vivo & In Vitro Studies** Experimental design and execution of pharmacological assays (anxiolytic, sedative, anti-inflammatory, anti-diabetic, analgesic, etc.).
3. **Software Skills:** GraphPad Prism, ChemDraw, EndNote.
4. **Animal Handling:** Proficient in handling and restraining rats and mice, experienced in oral and intraperitoneal (IP) dosing.
5. **Analytical Techniques:** UV-Vis Spectroscopy, HPLC, Rotary Evaporator

B. Pharmaceutical Industry Expertise:

1. **New Product Development:** Formulation design and stability testing.
2. **Existing Product Development:** Process optimization and troubleshooting.
3. **Cost Reduction & Efficiency Improvement:** Drug reformulation and development.
4. **Good Manufacturing Practices (GMP) Regulatory Compliance:** Ensuring adherence to industry standards.

C. Academic & Teaching Skills:

1. **Lecturing & Curriculum Development:** Teaching Pharmacology, Pharmacognosy, Pharmaceutical Technology, Medicinal Chemistry, Natural Product Chemistry, Hospital Pharmacy, and Pharmaceutical Analysis.
2. **Supervising Research Projects:** Guiding students in research design, data analysis, and manuscript writing.

Extracurricular Activities

1. **Governing Body Member, Dhansniri Unnayan Sangstha, Khulna** - Actively supporting community development, education, and healthcare initiatives, positively impacting over 500 vulnerable women.
2. **Active Member, Ektara Shilpa Gosthi, Khulna** - Engaged in continuous cultural activities promoting social awareness and heritage preservation.
3. **Founder & Organizer, Surja Tarun Sporting Club, Khulna** - Leading ongoing efforts to engage youth in sports and strengthen community bonds.