

SUMAYA AKTER

PhD. Student

Dept. of Molecular, Cellular and Biomedical Science

University of New Hampshire, USA

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CURRENT POSITION

Aug 2023- **Graduate Teaching Assistant**
Present Department of Molecular, Cellular and Biochemical Science
University of New Hampshire, Durham, NH, U.S.A.

EDUCATION

Aug 2023- **PhD student in Biochemistry (Neuroscience)**
Present Department of Molecular, Cellular and Biochemical Science
University of New Hampshire, U.S.A.
Advisor: Dr. Xuanmao Chen. **GPA:** 3.77/4.0
Project: Reelin Controls Cilia Directionality and Centriole Positioning in Laminated Cortical Regions.

Jan 2018- **Bachelor of Science in Biotechnology and Genetic Engineering**
May 2023 Noakhali Science and Technological University (NSTU), Bangladesh
GPA: 3.75/4.0 **Merit Position:** 3/30
Project: In silico Characterization of a Hypothetical Protein from Streptococcus pneumoniae D39V strain unravels a Biofilm Formation Stimulator Protein.

RESEARCH EXPERIENCE AS RESEARCH ASSISTANT

March 2021- **ABEx Bio-Research Center**
July 2023 Research Assistant
Advisor: Md Jamal Uddin, PhD
Professor, Ewha Womans University, Seoul, Korea
Project 1: Renoprotective effects of Mangiferin: Pharmacological advances and future perspectives.
Project 2: Renoprotective potentials of small molecule natural products targeting mitochondrial dysfunction.
Project 3: Potentials of mangiferin against liver diseases: pharmacological insights and therapeutic promises.

March 2021- **Centre for Biomedical Research and Training (CBRT)**
Nov 2021 Advisors: Dr. Niazur Rahman MD, MSc
& Dr. Tanbira Alam MD, MPhil, MSc
University of Toronto, Canada
Project: Project narrates beneficial roles of HSP72 expression induced by skeletal muscle contraction

Jan 2021- **University of Chittagong**
March 2021 **Advisors:** Dr. Adnan Mannan, Ph. D
Project: Impact of hypertension on health-related quality of life in a population-based study in Bangladesh
It was a collaborative research initiative between University of Chittagong, Chittagong Medical College, Asian University for Women and 250 bedded Chittagong General Hospital.

PUBLICATIONS

1. Rahman MA, **Akter S**, Dorotea D, Mazumder A, Uddin MN, Hannan MA, et al. Renoprotective potentials of small molecule natural products targeting mitochondrial dysfunction. Front Pharmacol 2022;13:925993. <https://doi.org/10.3389/fphar.2022.925993>.
2. **Akter S**, Moni A, Faisal GM, Uddin MR, Jahan N, Hannan MA, et al. Renoprotective effects of Mangiferin: Pharmacological advances and future perspectives. Int J Environ Res Public Health 2022;19:1864. <https://doi.org/10.3390/ijerph19031864>.
3. Shoyshob T, **Akter S**, Uddin M, Farjana M, Moni A, Seo W, Hossain M, Uddin M (2025) Pharmacological insights and therapeutic advances of mangiferin against various pathological conditions in liver diseases. Journal of Advanced Biotechnology and Experimental Therapeutics 8. J Adv Biotechnol Exp Ther. 2025 Jan; 8(1): 125-138, <https://doi.org/10.5455/jabet.2025.11>

ROLE AS REVIEWER

Fan Zhongyu, xuejiao wei, xiaoyu zhu, kun yang, ling tian, et al. Unveiling the Therapeutic Potential of Berberine: Its Therapeutic Role and Molecular Mechanisms in Kidney Diseases. Front. Pharmacol. Volume 16 - 2025 | doi: [10.3389/fphar.2025.1549462](https://doi.org/10.3389/fphar.2025.1549462)

PROFESSIONAL DEVELOPMENT ACTIVITIES

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|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Oct 2025 | Public Speaking and Professional Communication: Workshop #2: How to Talk Like TED, led by Anna Goldsmith, TEDxPortsmouth Producer
UNH, Durham, USA |
| Sep 2025 | Public Speaking and Professional Communication: Workshop #1: Communicate Your Research, Connect with Your Audience
UNH, Durham, USA |
| April 2025 | Invited Judge, Undergraduate Research Conference (URC)
UNH, Durham, USA |
| April 2025 | A2i Industry Job Search Strategies Spring 2025
UNH, Durham, USA |
| Jan 2025 | Preparing Future Faculty Series #1: Showcasing Your Hard Work with Effective Curriculum Vitae
UNH, Durham, USA |
| Sep 2024 | Teaching at Teaching Intensive Institutions (TTII) Conference
Worcester State University, Worcester, MA |

Sep 2024 **Global Health Symposium**
UNH, Durham, USA

Aug 2024 **2024 Annual Center of Integrated Biomedical and Bioengineering Research (CIBBR) Scientific Retreat**
UNH, Durham, USA

April 2021 **Workshop on Scientific Research Article Writing**

Feb 2021 **Participant, Network of Young Biotechnologist Career Fest 2021**

Feb 2020 **Participant, Fifth National Young Biotechnologists Congress**
University of Dhaka, Dhaka.

March 2019 **Workshop on Basic Microbiology Technique**
Bangladesh Council of Scientific and Industrial Research, Chittagong

Oct 2020 **Participant, National English Olympiad Competition**
Noakhali, Bangladesh

June 2020 **Participant, Hult prize competition**
Noakhali Science and Technology University

CONFERENCE PRESENTATIONS

April 2025 **‘Reelin Controls the Directional Orientation, Apical Localization and Length of Primary Cilia in Principal Neurons in the Cerebral Cortex’** Sumaya Akter¹, Soheila Mirhosseiniardakani¹, Yuto Takekoshi³, Liyan Qiu¹, Kevin Jiang¹, Mark Lyon², Mitsuharu Hattori^{3,*} and Xuanmao Chen^{1*}
2025 Graduate Research Conference, UNH, Durham, USA

‘Reelin Controls the Directional Orientation, Apical Localization and Length of Primary Cilia in Principal Neurons in the Cerebral Cortex’ Sumaya Akter¹, Soheila Mirhosseiniardakani¹, Yuto Takekoshi³, Liyan Qiu¹, Kevin Jiang¹, Mark Lyon², Mitsuharu Hattori^{3,*} and Xuanmao Chen^{1*}
2025 Center of Integrated Biomedical and Bioengineering Research, UNH, Durham, USA

Feb 2020 **Making beautiful colors of jeans without toxic chemicals’**
National Biotechnology Fair, University of Dhaka

April 2019 **‘A mini noble food’**
World DNA Day, Noakhali Science and Technology University

TEACHING EXPERIENCE

Aug 2023- **Graduate Teaching Assistant**

May 2024 Course: Biology-411
Level: Undergraduates (72 Participants)

Aug 2024- **Graduate Teaching Assistant**

Dec 2024 Course: Human Physiology and Anatomy, BMS-507
Level: Undergraduates (72 Participants)

Jan 2025- **Graduate Teaching Assistant**
 May 2025 Course: Human Physiology and Anatomy, BMS-508
 Level: Undergraduates (500 Participants)

Aug 2024- **Graduate Teaching Assistant**
 Dec 2024 Course: Human Physiology and Anatomy, BMS-507
 Level: Undergraduates (72 Participants)

LEADERSHIP

May 2024- **Senator, Graduate Student Senate (GSS),**
 Present University of New Hampshire, USA

May 2024- **Senator, Graduate Student Council (GSC)**
 Present University of New Hampshire, USA

Dec 2024 **Vice President (Event), Bangladeshi Student Association**
 University of New Hampshire, USA

Jan 2018- **Executive member, 'Cholo Paltai Foundation'**
 Dec 2020 Noakhali Science and Technology University

Feb 2021- **Executive member of Science Club**
 Aug 2022 Noakhali Science and Technology University

Jan 2019- **Executive member of Debating Society**
 Feb 2020 Noakhali Science and Technology University

SCHOLARSHIP

2025-2026 **Martha and Theodore Frizzell Fund Scholarship**
 University of New Hampshire, USA

2025 **Summer Teaching Assistant Fellowships (STAF)**
 University of New Hampshire, USA

2024-2025 **Martha and Theodore Frizzell Fund Scholarship**
 University of New Hampshire, USA

2018-2023 **University Merit Scholarship**
 Noakhali Science and Technology University, Bangladesh

PROFESSIONAL MEMBERSHIP

Feb 2025- **American Neurologican Association (ANA)**
 Present Associate Member

April 2023- **Society for Neuroscience (SfN), Washington, D.C.**
 Present Regular Member

