

Sumaiya Afrin

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Education

- 2017 – Present **Bachelor of Science (B.Sc.)**, *Biotechnology and Genetic Engineering*, Khulna University, Khulna, Bangladesh.
CGPA 3.55 on a scale of 4.00 (up to 4th year 1st term)
- 2017 **Higher Secondary School Certification (HSC)**, Govt. M.M. City College, Khulna, Bangladesh.
GPA 5.00 on a scale of 5.00
- 2015 **Secondary School Certification (SSC)**, Govt. Coronation Secondary Girls' School, Khulna, Bangladesh.
GPA 5.00 on a scale of 5.00

Research Interests

- Topic My research interests lie mainly in the field of Molecular biology and Bioinformatics and I want to understand biological complexity in a more holistic way.

Research Experience

- B.Sc. Academic Final Year Thesis **Topic:** Exploring antibacterial activity of *Azadirachta indica* against multidrug resistant bacteria.
Supervisor: Tahmina Pervin (Assistant Professor, Khulna University)
Co-Supervisor: Dr. Ahsan Habib (Professor, Khulna University)

Lab Skills

- Wet Lab Skills (Acquired)
- Conventional Laboratory Techniques for Microbial, plant and animal cell (tissue) culture; DNA, RNA and protein separation from biological sample. Basic techniques of cell culture from embryonated duck egg.
 - Isolation of bacterial pathogens from various samples by culture, maintenance and storage of pathogens, Disc diffusion assay for antibacterial screening, Serial dilution technique (MIC test), Measurement of bacterial growth, Agarose gel electrophoresis for separation of DNA, Spectrophotometry and biochemical test, PCR analysis.
 - Maintenance and monitoring of laboratory equipment such as - Autoclave machine, Laminar Air Flow machine, Centrifuge machine, Incubator, Light Microscope, Spectrophotometer, PH meter, Vortex machine, Bioreactor etc.
- Dry Lab Skills (Acquired)
- Softwares, databases and Online bioinformatics tools such as RNAfold, and Sfold regarding analysis of biomolecular sequences and structures.
 - Basic software regarding protein docking and drug design.

Computer Skills

Computer Fundamental	Successfully completed the Fundamentals in Computer and IT Sessional course work during undergrad level affiliated with Computer Science and Engineering Discipline, Khulna University.
Operating System	Proficient at using different version of both Windows and Linux operating systems.
Programming Language	Intermediate at using python, R, C and C++ programming languages. Basic at using MATLAB programming language.
Software	Proficient at using Microsoft Office Suite (Microsoft Word, Microsoft Excel and Microsoft PowerPoint) Intermediate at working with Adobe Photoshop and Adobe Illustrator.

Language Skills

Mother Language	Bengali (expert at communicating, reading and writing)
Second Language	English (proficient at communicating, reading and writing). Medium of instruction of the undergraduate study is English. IELTS (General) Score: 7.5 (listening: 8.5, reading: 7.0, speaking: 7.5 and writing: 6.5)

Awards and Achievements

- 2017 – 2021 **Scholarship from the Govt. of Bangladesh** for excellent academic result in the Higher Secondary School Certificate Examination.
- 2016 **Scholarship from the Govt. of Bangladesh** for excellent result in the Secondary School Certificate Examination.

Community Activities and Other Experience

- 2017 – present **Member**, Helix (Skill development club of Biotechnology and Genetic Engineering Discipline, Khulna University)
- 2018 – present **Member**, Young biotechnologist of Bangladesh (YoungBB).
- 2018 **Content Organizer and Writer**, “BIOTECH Magazine” (A Bangla national scientific and technology magazine published by the students of Biotechnology & Genetic Engineering Discipline, Khulna University, Bangladesh)
- 2017 **Volunteer**, “Badhon” (Blood Donating Organization in Khulna University, Bangladesh)

Seminars and Conferences Attended

- 2017 A seminar on Nanobiotechnology, Biotechnology & Genetic Engineering discipline, Khulna University, Bangladesh.
- 2018 A seminar on Overview & Safe Use of Laboratory Ventilation Equipment (Laminar Air Flow, Biosafety Cabinets and Fume Hood) by ESCO Biological Safety Institute.

References

- Reference 1 Dr. Morsaline Billah, **Professor, Biotechnology and Genetic Engineering Discipline Khulna University**, Khulna-9208, Bangladesh. Cell No: +880 1712008393. E-mail: morsaline@yahoo.com.
- Reference 2 Dr. Ahsan Habib, **Professor, Biotechnology and Genetic Engineering Discipline Khulna University**, Khulna-9208, Bangladesh. Cell No: +880 1770058070. E-mail: ahsan_habib@ku.ac.bd.

Reference 3 Tahmina Pervin, **Assistant Professor, Biotechnology and Genetic Engineering Discipline
Khulna University**, Khulna-9208, Bangladesh. Cell No: +880 1558707301. E-mail:
tahmina@outlook.com.