



Sharmin Ahmed Trisha

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EDUCATION

Master of Science

(2017)

Department of Microbiology

University of Dhaka

Result: 3.79 (on scale of 4)

Thesis Title: “Characterization of bacteria isolated from blood and aspirate fluids of cancer patients”

Thesis Supervisor: Professor Dr.Sunjukta Ahsan (PhD)

Bachelor of Science

(2015)

Department of Microbiology

University of Dhaka

CGPA: 3.84 (on scale of 4)

Higher Secondary Certificate

(2010)

Holy Cross College, Tejgaon, Dhaka

Board: Dhaka

GPA: 5.00 (on scale of 5)

Secondary School Certificate

(2008)

Udayan Higher Secondary School, Dhaka

Board: Dhaka

GPA: 5.00 (on scale of 5)

HONORS/AWARDS

- Dean's Award, Faculty of Biological Sciences, University of Dhaka, 2015
- National Science and Technology fellowship Award (Ministry of Science and Technology), 2016.
- Scholarship from Shamsunnahar Hall, Dhaka University for admirable Hon's result, 2017.

INTERNSHIP:

Industrial training in Sanofi Bangladesh Limited, Tongi, Gajipur from 31st May to 11 June, 2015.

TRAINING/WORKSHOP:

- "Clearance of import-export cargoes in relation to Customs procedure and WTO TFA requirement" organized by Feed and Future Bangladesh Improving Trade and Business Enabling Environment Activity on January 16, 2023.
- Operation and maintenance of "Dumas Protein Analyzer and Fat extractor" held on 04-08 December 2022.
- Special foundation training course for Non-Cadre officers from 24th July to 21st September 2022.
- 70th Training Program of NITUB on the "use, maintenance and trouble shooting of Common Medical instruments".

Summary of Work Experience:

- Scientific Officer, BCSIR, Dhaka-1205, Bangladesh from 15th November 2021, to till.
- Lecturer in Stamford university Bangladesh from 1st January 2019 to 30th April 2021
- Research Assistant in Environmental microbiology lab in Microbiology department of Dhaka university from September 2017 to October 2018

JOB RESPONSIBILITIES:

- Development and documentation of various microbiology laboratories processes and preparing final reports
- Maintaining knowledge on various testing methods and perform all manual operations in microbiology lab.
- Planning and carrying out experimental trial.
- Recording, analyzing and interpreting data.
- Observing safety standards.
- Developing and maintaining validation in all protocols for various environmental controls.

PUBLICATIONS

2018

Ahmed, N., Tabassum, M., **Ahmed, S.**, Subi, S.J. and Marium, M., Analysis of the antibacterial and thrombolytic activity of the methanolic extract of citrus sinensis peel.

2020

Ahmed, S., Islam, R. and Ahsan, S., 2019. Prevalence of Disease and Antibiotic Sensitivity Profile of Hospital Associated Pathogens: A study on a local diagnostic Centre in Dhaka city. *Bangladesh Journal of Microbiology*, 36(2), pp.99-104.

2020

Zerin, T., Aktar, K. and **Ahmed, S.**, 2020. Water quality and distribution of drug resistant bacteria in tap, well and surface water samples of randomly selected areas in Bangladesh. *J Microbiol Exp*, 8(6), pp.193-199.

2021

Tamanna Zerin, Md Borhan Uddin, **Sharmin Ahmed**, Maliha Sharmin, Sourav Sarkar, Farzana Yasmin Shomi, Ehsan Al-din Siam. Isolation and characterization of bacteria with arsenic tolerance from garden soil and their potential role in soil biology. *European Journal of Biotechnology and Bioscience*, Volume 9, Issue 1, 2021, Pages 27-32

3 papers are now going through publication process.

CONFERENCE PAPER AND PRESENTATION

Sharmin Ahmed., Riajul Islam.,and Sunjukta Ahsan*.(2018)

Prevalence of Disease and Antibioqram of Causative Agents: A study on a local diagnostic Centre in Dhaka city

Sharmin Ahmed and Sunjukta Ahsan*(2018)

Characterization of bacteria isolated from blood and aspirate fluids of cancer patients.

Both topic was presented on 31st Annual Conference hosted by Bangladesh Society of Microbiologists (“Challenges and Innovations in Controlling Microbiological Hazards”, March 10, 2018 at Dhaka University, Bangladesh).

Sharmin Ahmed and Tamanna Zerín* (2022)

Isolation and Characterization of Arsenic Resistant Bacteria from Garden Soil and Evaluate Their Role in Salt Tolerance and N2 Cycle

This topic was presented in BCSIR Congress-2022, 01-03 December 2022, BCSIR Dhaka, Bangladesh (“Integrated Approach for Adapting 4IR”)

RESEARCH EXPERIENCE:

Department of Microbiology, University of Dhaka

Title study: Characterization of bacteria isolated from blood and aspirate fluids of cancer patients.

- Development of protocol
- Optimization of laboratory procedures
- Sample collection and processing
- Isolation and preservation of bacteria
- Phenotypic characterization (cell morphology, culture and metabolic character, biochemical identification through software, antimicrobial susceptibility pattern)
- In vitro pathogenicity test (hemolysis of blood cell)
- Molecular characterization (total cell DNA preparation,PCR,Agarose gel electrophoresis,PCR product purification,DNA sequencing and identification of bacteria in species level)
- Comparison with control groups
- Documentation of research findings

Title study: Analysis of the antimicrobial activity of *Citrus sinensis* peel extracts.

- Preparation of the project plan
- Literature review and selection of microbial strains
- Documentation and processing of result

BCSIR

- Leading a current R&D project named "Isolation of chromium tolerant bacteria from tannery effluent and its possible bioremediation application" (2022–2023)
- As a research associate now working in 5 different R&D projects in collaboration with other institutes of BCSIR and Dhaka University.
- Four new microbiological metrics for measuring water quality have been developed.
- Microbiological lab development in LRI
- Currently supervising one fellow and one MS student in INARS, BCSIR.

Presentation Skill: Good.

Language competency: English, Bangla, Hindi

Computer literacy: MS Word, MS PowerPoint, MS Excel

Extracurricular Activities:

- Former member of Microbiology Earth Club, Department of Microbiology, University of Dhaka
- Former member of Science Club, Dhaka University.
- Former member of cultural committee, Udayan Higher Secondary School.
- Arranged cultural programme as a secretary of cultural committee in NAPD foundation training.

References

Professor Dr. Md. Abdul Malek
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University of Dhaka B.Sc. (Hons.)
M.Sc. (DU),
Ph.D. (U.K.)
Phone: +8809661920-73/7732
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Professor Dr. Sunjukta Ahsan
PhD (Cambridge),
MS (Australia),
MSc (Bangladesh),
BSc (Bangladesh)
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