

ANICA TASNIM PROTITY

Scientific Officer (Study leave on deputation)
Microbial Biotechnology Division, National
Institute of Biotechnology (NIB).

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Biological Sciences, Northern Illinois University.
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**Research involvement in NIB:**

2017: Bacteriological Analysis of Post Disaster Samples of Haor water

2017: Generation of electricity by using Microbial Fuel Cell (MFC) from waste samples and identification of potential electrogenic bacterial community

2017: Co-Project Investigator of 'Development of abiotic stress tolerant eggplant (*Solanum melongena* L.) breeding lines through Agrobacterium- mediated genetic transformation' (Research Grant from Ministry of Science and technology)

2016: Exploration of economically important flora from Bay of Bengal: a pilot study- in collaboration with Indian Ocean Rim Association, India and National Institute of Biotechnology, Bangladesh

2016: Fermentation and purification of bacterial dehairing enzyme isolated from tannery waste in Bangladesh

Education

2017-Present: Enrolled as doctoral student (Microbiology), Department of Biological Sciences, Northern Illinois University.

CGPA: 4.00 out of 4.00

2014-2015: M.S. (Thesis) on Microbiology, University of Dhaka, Bangladesh.

GPA: 3.87 out of 4.00

2010-2013: Bachelor' degree in Microbiology, University of Dhaka, Bangladesh.

CGPA: 3.92 out of 4.00

Academic Research experience

Ph.D Research topic (2017-present): Metabolic engineering of Glucosamine production in *Escherichia coli*.

Supervisor: Dr. Shengde Zhou, associate professor and assistant chair, Department of Biological Sciences, Northern Illinois University.

M.S. Thesis (2014-2015)

Title: Cytotoxic activity induced by *ctx* gene negative *Vibrio fluvialis* organisms isolated from environmental sources.

Supervisor: Dr. Chowdhury Rafiqul Ahsan, Professor, Department of Microbiology, University of Dhaka.

B.S. 4th Year Research internship at Bangladesh Council of Scientific and Industrial Research, BCSIR (2013)

Title: Detection of *Clostridium botulinum* spores from honey sample by nucleic acid amplification method (PCR)

Major skills

- Genetic engineering, Cancer biology, Molecular biology, Animal handling, Microbiology, Cell culture techniques.

Research publications

- Hashem, A. (2019). Microbial Fuel Cell (MFC) Application for Generation of Electricity from Dumping Rubbish and Identification of Potential Electrogenic Bacteria. *Advances In Industrial Biotechnology*, 2(1), 1-8. doi: 10.24966/aib-5665/100010
- Barua, E., Hossain, M., Shaha, M., Islam, E., Zohora, F., & Protity, A. et al. (2019). Generation of Electricity Using Microbial Fuel Cell (MFC) from Sludge. *Bangladesh Journal Of Microbiology*, 35(1), 23-26. doi: 10.3329/bjm.v35i1.39800
- Tanzena Tanny, S., Protity, A., Salimullah, M., & Alam, I. (2018). In vitro regeneration of two high-yielding eggplant (*Solanum melongena* L.) varieties of Bangladesh. *Current Botany*, 08-12. doi: 10.25081/cb.2018.v9.3376

Conference publications

- Abu Hashem, Titon Chandra Saha¹, Eti Barua, Anica Tasnim Protity², Fatema Tuj Zohora, Abanti Barua¹ and M Salimullah (2018). Microbial fuel cell (mfc) application for generation of electricity from dumping rubbish and identification of potential electrogenic bacteria. Annual Industrial Biotechnology and Bioprocessing Congress, 17-18 September 2018, San Diego, USA. J Bioprocess Biotech 2018, Volume 8, DOI: 10.4172/2155-9821-C1-016.

- 2017: **Best poster presenter award** in the category of "Microbiology Education and Research in Food, Industry and Environment" on 30th Annual Conference of Bangladesh Society of Microbiologist (BSM).
Poster title: Generation of electricity by using Microbial Fuel Cell (MFC) from waste samples and identification of potential electro-genic bacterial community
- 2016: **2nd prize for poster presentation** in the category of 'Biotechnology for Sustainable Development' on International South Asian Biotechnology Conference (SABC) held at Department of Biochemistry and molecular Biology, University of Dhaka.
Poster title: Cytotoxic activity induced by *ctx* gene negative *Vibrio fluvialis* organisms isolated from environmental sources

Training experiences

- A. Training on: Biostatistics analysis using SPSS (2017)
 - Duration: 7 days
 - Institution: National Institute of Biotechnology, Savar, Bangladesh.
 - Training Contents: Basic application of SPSS in analyzing biostatistical data
- B. Workshop on: Biosafety and Biosecurity (2016)
 - Institution: International Centre for Diarrhoeal Disease Research, Bangladesh.
 - Duration: 2 days
- C. Training on: Scientific Paper Writing and Publishing (2016)
 - Duration: 3 hours
 - Institution: National Institute of Biotechnology, Savar, Bangladesh.
 - Training Contents: Outline of writing a paper: the context in which the scientist is publishing, ethical values of paper publication.
- D. Training on: Cell culture techniques for advanced research (2015)
 - Duration: 5 days
 - Institution: Centre for Advanced Research in Sciences (CARS), University of Dhaka.
 - Training Contents: Basic concept, requirements and precautions for cell culture; hands on training on cell passage, maintenance, counting, seeding, staining, preservation and thawing, cytotoxicity examination, viral infection.

ACHIEVEMENTS

- 2019: Received **Elwood and Ruth Briles Memorial Fund (BDT 2,80,000/=)**, Department of Biological Sciences, Northern Illinois University.
- 2014: **National Science & Technology Fellowship, Bangladesh (BDT 54,000/=)** as Research Student.
- 2013: **Dean's Award** for excellent academic result and highest attendance in the faculty of biological science, University of Dhaka, Bangladesh.
- 2012: **Outstanding Academic Performance Award** by Department of Microbiology, University of Dhaka, Bangladesh.