

HUMAYRA HABIB

Biological Science Graduate Student

E-Mail: habib17@purdue.edu

Phone: +19299914620

Education:

- **PhD:** Department of Biological Sciences, Purdue University, West Lafayette, USA
Year: 2024-Present, OLSON Lab
- **M.S:** Department of Microbiology, University of Dhaka, Bangladesh
Year:2021; GPA:3.84/4.00
- **B.S:** Department of Microbiology, University of Dhaka, Bangladesh
Year: 2018; CGPA: 3.81/4.00

Work Experience:

- **Lecturer:** September, 2023- July, 2024; Department of Mathematics and Natural Sciences (MNS) BRAC University, Dhaka, Bangladesh
-Course and lab teaching, Supervising undergrad students for thesis, Student consultation, Preparing questions and taking exams, Assisting the department in academic, administrative and co-curricular activities.
- **Adjunct Lecturer:** May, 2023-September, 2023; Department of Mathematics and Natural Sciences (MNS) BRAC University, Dhaka, Bangladesh
- Course and lab teaching, Supervising undergrad students for thesis, Student consultation, Preparing questions and taking exams, Assisting the department in academic, administrative and co-curricular activities.
- **Lecturer:** February, 2022- July, 2023; Department of Microbiology, Primeasia University, Dhaka, Bangladesh.
- Course and lab teaching, Supervising undergrad students for thesis, Student consultation, Preparing questions and taking exams, Assisting the department in academic, administrative and co-curricular activities.
- **Adjunct Lecturer:** June, 2021-September, 2021; Department of Mathematics and Natural Sciences (MNS) BRAC University, Dhaka, Bangladesh
- Course and lab teaching, Supervising undergrad students for thesis, Student consultation, Preparing questions and taking exams, Assisting the department in academic, administrative and co-curricular activities.
- **Scientific Officer:** November, 2020- January,2022; US Bangla Molecular Lab, Narayanganj, Bangladesh
-Lab setup, Maintenance of biosafety, Sample processing, Performing RT-PCR and Result interpretation.
- **Research Analyst:** May, 2020- November, 2020; Biological Hazard and Health Research (BHHR) Laboratory, Centre for Advanced Research in Sciences (CARS), University of Dhaka, Bangladesh
-Lab setup, Maintenance of biosafety, Sample processing, Performing RT-PCR, Result interpretation, Report preparing and Training the volunteers.

Research Experience:

- **As Lecturer at BRAC University:** September 2023-July 2024,
-Supervised undergrad students for their thesis, Worked on different extensive research in collaboration with other faculties and department
- **As Lecturer at Primeasia University:** June 2022-June 2023,
-Supervised undergrad students for their thesis, worked on different extensive research in collaboration with other faculties and department and project titled “Characterization of lactic acid bacteria isolated from street pickles of Dhaka, Bangladesh.”
- **At Centre for Advanced Research in Sciences (CARS):** July 2022-Nov 2022,
-Worked on a project titled “Persistence of SARS CoV-2 on Fresh Vegetables”
- **As a Masters’ Student at Environmental Microbiology Lab, University of Dhaka:** November 2020-March 2020 and September 2021
-Worked on projects titled “Prevalence of multidrug-resistant (MDR) *Escherichia coli* in untreated effluents from a wastewater treatment plant (WWTP) in Dhaka, Bangladesh” and “High prevalence of multidrug resistant *Salmonella* spp. in wastewater treatment plant in Dhaka, Bangladesh.”
- **As an Undergraduate Student at Virology and Immunology Lab, University of Dhaka:** August 2018—November 2018,
-Worked on project titled “Presumptive identification of *Vibrio* sp. isolated from the Buriganga river water sample by Analytical Profile Index (API)20NE.”

Publications:

- Avijit Banik, Hasnain Anjum, **Humayra Habib**, Maruf Abony, Anowara Begum, and Zakaria Ahmed. "Characterization of lactic acid bacteria isolated from street pickles of Dhaka, Bangladesh." *Heliyon* (2023). DOI: <https://doi.org/10.1016/j.heliyon.2023.e17508>
- Md Naeem Hossain, Asim kumar Roy, **Humayra Habib**, Zenat Zebin Hossain, Humaira Akhter, and Anowara Begum. "Prevalence of multidrug-resistant (MDR) *Escherichia coli* in untreated effluents from a wastewater treatment plant (WWTP) in Dhaka, Bangladesh." *Korean Journal of Microbiology* (2023) DOI: <https://doi.org/10.7845/kjm.2022.2040>

Conference Proceedings:

- A Banik, H Anjum, **H Habib**, M Abony and S Datta (2023). “Occurrence of Multidrug Resistance in Blood and Uropathogenic Bacterial Isolates from Tertiary Hospitals in Dhaka city.”. In the 36th Annual Conference of the Bangladesh Society of Microbiologists (BSM) 2023. P56.
- **H Habib**, MN Hossain, ZZ Hossain, H Akhter and A Begum (2020). “Characterization of Antibiotic Resistant and Biofilm Forming *Salmonella* spp. isolated from the Wastewater Treatment Plant of Dhaka City”. In: 34th Annual

Conference of Bangladesh Society of Microbiologists (BSM) (International e-conference) 2020. P.36; **Awarded “The Best Oral Presenter”**

- **H Habib**, MN Hossain, ZZ Hossain, H Akhter and A Begum (2019). “Biofilm forming capacity of *Escherichia coli* isolated from wastewater’ In: 33rd Annual Conference of the Bangladesh Society of Microbiologists (BSM) 2019. P.38
- **H Habib**, MH Babu, M Yasmin, J Nessa and CR Ahsan (2019). “Isolation and presumptive identification of *Vibrio vulnificus* strains from the river Buriganga”. In: 32nd Annual Conference of the Bangladesh Society of Microbiologists (BSM) 2019.P.46

Awards/Scholarships:

- **Ross Fellowship 2024-2025**, Department of Biological Science, Purdue University
- **National Science and Technology Fellowship 2019 (MS, Biological Science)** from the Ministry of Science and Technology, Bangladesh

Trainings

- **Laboratory Skills:** Basic Microbiology techniques, DNA and RNA extraction, Automated Nucleic Acid extraction, Polymerase Chain Reaction, qRT- PCR, UV spectrophotometry, Cell Culture, Enzyme-linked Immunosorbent Assay (ELISA), Gel electrophoresis, Alignment tools like BLAST, Phylogenetic inference software including MEGA, Bioinformatics Tool, Phylogeny analysis.
- **“Fundamental Bioinformatics: Sequence Analysis, Functional Annotation and Phylogeny”** course; Duration: 6 months; Administered by: Centre for Bioinformatics Learning Advancement and Systematics Training (cBLAST), Department of Biochemistry, University of Dhaka
- **“Basics of Chromatographic Techniques”**; Duration: 6 days; Organized by: FABAA (Federation of Asian Biotech Associations), FABAA Academy, ASPIRE-BioNEST, Indian Institute of Chromatography and Mass Spectrometry
- **“Biosafety and Biosecurity for Microbiological and Biomedical Research and Diagnostics”**; Organized by Bangladesh Biosafety and Biosecurity Society

Language Proficiency

- Bangla: Native Language; English: Advanced; Hindi: Fluent in Speaking

Media Coverage:

- **“People Who Do Not Fear Virus, Got the Inspiration to Know about Something New”**, 17 May-2020, Prothom Alo. (Regarding the contribution during the pandemic).
<https://www.prothomalo.com/lifestyle/%E0%A6%AD%E0%A6%BE%E0%A6%87%E0%A6%B0%E0%A6%BE%E0%A6%B8%E0%A7%87-%E0%A6%AF%E0%A6%BE%E0%A6%81%E0%A6%A6%E0%A7%87%E0%A6%B0-%E0%A6%AD%E0%A7%9F-%E0%A6%A8%E0%A7%87%E0%A6%87>