

# Resume of

## ASHISH KUMAR SARKER



**Address:** Department of Pharmacy, Pabna University of Science and Technology (PUST).  
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### Research Experiences:

1. Determination of Antitumor/Anticancer activity of metabolites of isolated microorganism especially bacteria on EAC cell induced tumor bearing cell.
2. Isolation, purification and preservation of bacterium from soil samples.
3. Phenotypic and Genotypic Characterization of an isolated microorganism.
4. Determination of Cytotoxicity of crude extracts through Brine Shrimp Lethality Bioassay.
5. Determination of Antibacterial activity and MIC of crude metabolites of isolated microorganism on Gram positive and Gram negative bacteria.
6. Determination of Antifungal activity of crude metabolites.
7. *In-vitro* Resistance development by antibiotics in test isolated bacteria.
8. Determination of hemolytic activity of crude metabolites.

### Skills and Techniques:

Brine Shrimp Lethality Bioassay, Microscopy, Statistical analysis of microarray data, PCR screening, Serial Dilution Technique, Single line streaking technique, Cover slip culture, VLC, TLC, Disc-diffusion assay, Turbidimetric assay, Spread plate technique, etc.

### Languages Proficiency:

- ❖ Bengali: Mother Tongue
- ❖ English: **IELTS overall band score 7.5 (Listening-8.0, Reading-8.5, Speaking-6.5, Writing-6.0).**
- ❖ Hindi: Moderate

### Education:

Name of Degree	Institution	Medium of Instruction	Passing Year	Result (CGPA)
Master of Pharmacy (Thesis)	University of Rajshahi, Bangladesh	English	July, 2012	<b>GPA 4.00</b> (Out of GPA 4.00)/ First Class (2 <sup>nd</sup> Position)
Bachelor of Pharmacy	University of Rajshahi, Bangladesh	English	August, 2010	<b>GPA 3.96</b> (Out of GPA 4.00)/ First Class (2 <sup>nd</sup> Position)
Higher Secondary Certificate (H.S.C)	New Govt. Degree College, Rajshahi Board, Bangladesh	Bengali (Mother Tongue)	2004	<b>GPA 5.00</b> (Out of GPA 5.00)
Secondary School Certificate (S.S.C)	Monigram High School, Rajshahi Board, Bangladesh	Bengali (Mother Tongue)	2002	<b>GPA 4.63</b> (Out of GPA 5.00)

**Thesis Title:** “Isolation and Characterization of Marine Bacteria Producing Bioactive Secondary Metabolites from Sundarbans, Bangladesh”

**Research Publications:**

1. Arefa N, **Sarker AK**, Rahman MA. Resistance-guided isolation and characterization of antibiotic-producing bacteria from river sediments. **BMC Microbiology**, 2021, 21(1):116. DOI: 10.1186/s12866-021-02175-5. **(5-Year Impact Factor: 3.381)**
2. Das N, Parvin MS, Hasan M, Akter M, Hossain MS, Parvez MM, **Sarker AK**, Rahman MAA, Mamun A, Islam ME. A flavone from the ethyl acetate extract of *Leea rubra* leaves with DNA damage protection and antineoplastic activity. **Biochemistry and Biophysics Reports**, 2022, 30 (2022); 101244. DOI: 10.1016/j.bbrep.2022.101244. **(Impact Factor: 2.613)**
3. **Sarker AK**, Haque MA, Islam MS, Haque MU, Kundo NK, Anisuzzaman ASM, Saha U, Islam MAU. Phenotypic and Genotypic Characterization of a Marine Bacterium Isolated from Sundarbans, Bangladesh. **Journal of Microbiology Research**, 2015, 5(3): 109-117. DOI: 10.5923/j.microbiology.20150503.05. **(ICV 2015: 74.73; ICV 2016: 85.70; h5-index: 8, h5-median: 10, Based on Google Scholar Metrics, June 2017)**
4. **Sarker AK**, Haque MA, Islam MS, Rahman MA, Islam MAU. Isolation and Characterization of a Marine Bacterium from Sundarbans, Bangladesh. **British Microbiology Research Journal (Present name: Microbiology Research Journal International)**, 2015, 6(6): 348-357. DOI: 10.9734/BMRJ/2015/15907. **(NAAS Score (2017): 4.65 (Jrn ID: B159); ICV: 90.55)**
5. Haque MA, **Sarker AK**, Islam MS, Roy KR, Kundo NK, Anisuzzaman ASM, Chouduri MAU, Islam MAU. Isolation of Marine *Streptomyces*, Characterization and Metabolites' Screening for Antibacterial Activity. **Journal of Applied & Environmental Microbiology**, 2015, 3(2): 38-43. DOI: 10.12691/jaem-3-2-2. **(GIF: 0.521, 2015)**
6. Islam MS, Haque MA, **Sarker AK**, Rahman MA, Islam MAU. *In-vitro* Resistance Development by Ciprofloxacin and Azithromycin in *Shigella dysenteriae*, **British Microbiology Research Journal**, 2016, 14(4): 1-7. DOI: 10.9734/BMRJ/2016/25463. **(NAAS Score (2017): 4.65 (Jrn ID: B159); ICV: 90.55)**
7. **Sarker AK**, Haque MA, Islam MS, Rahman MA, Islam MAU. Exploration of Antibacterial Metabolites Producing Marine Bacteria from Sundarbans, Bangladesh. **Bangladesh Pharmaceutical Journal**, 2015, 18(1): 53-60. DOI: 10.3329/bpj.v18i1.23516.
8. Haque MU, Rahman MA, Haque MA, **Sarker AK**, Islam MAU. Antimicrobial and Anticancer Activities of Ethyl Acetate Extract of Co-culture of *Streptomyces* sp. ANAM-5 and AIAH-10 Isolated From Mangrove Forest of Sundarbans, Bangladesh. **Journal of Applied Pharmaceutical Science**, 2016, 6 (02): 051-055. DOI: 10.7324/JAPS.2016.60207. **(GIF: 0.654 (2015), SNIP: 0.533, SJR: 0.244, H-index: 24)**
9. **Sarker AK**, Haque MA, Saha U, Rahman MA, Islam MAU. Evaluation of Antibacterial, Antifungal and Cytotoxic Potentials of Crude Metabolite of ANAM-39, a Marine Bacterium Isolated from Sundarbans, Bangladesh. **Bangladesh Pharmaceutical Journal**, 2015, 18(2): 103-109, 2015. DOI: 10.3329/bpj.v18i2.24306.
10. Haque MA, **Sarker AK**, Kundo NK, Anisuzzaman ASM, Islam MAU. Evaluation of antifungal, hemolytic and cytotoxic potentiality of ethyl acetate crude extracts of a novel marine *Streptomyces* spp. AIAH-10. **Scientific Journal of Microbiology**, 2015, 4(5): 25-33. DOI: 10.14196/sjm.v4i5.1843. **(GIF: 0.897, 2015)**
11. Haque MA, **Sarker AK**, Paul RK, Khan SS, Islam MAU. Screening for Antiparasitic Activity of Crude Extracts of *Pleurotus*

*highking*, a Bangladeshi Edible Mushroom. **Bangladesh Pharmaceutical Journal**, 2015, 18(1): 38-41. DOI: 10.3329/bpj.v18i1.23512.

12. Haque MA, Sarker AK, Islam MS, Islam MAU. Antibacterial Potential of Ethyl-Acetate Extracts of Marine *Streptomyces* spp. AIAH-10 against Drug Resistant *Escherichia coli*. **British Microbiology Research Journal**, 2015, 7(3): 143-150. DOI: 10.9734/BMRJ/2015/15275. (NAAS Score (2017): 4.65 (Jrn ID: B159); ICV: 90.55)

### **Research Grants:**

**Funding Organization:** Pabna University of Science and Technology (PUST) on behalf of University Grant Commission (UGC) of Bangladesh.

**Role:** Project Director.

#### **Grant-01:**

Year Awarded: 2018-19

Project Title: Investigation of Bioactive Marine Bacteria from Sundarbans, Bangladesh.

#### **Grant-02:**

Year Awarded: 2019-20

Project Title: Determination of Antibacterial and Antifungal activity of crude metabolites of isolated bacteria from Pabna, Bangladesh.

#### **Grant-03:**

Year Awarded: 2020-21.

Project Title: Food Safety Concern of the General Citizens of Pabna District towards Milk and Dairy Products.

### **Current Research with Undergraduate and Graduate students:**

**Project Title (Undergraduate):** A case study on unsystematic and redundant use of antibiotics and others important class of drugs at different hospitals and clinics of Pabna, Bangladesh.

#### **Research Title (Graduate):**

1. Isolation, purification, preservation and identification of bacterium from soil samples of Pabna, Bangladesh.
2. Study of antioxidant, antibacterial and antifungal activity of crude extracts of some medicinal plants of Pabna, Bangladesh.

### **Professional Experience:**

<b>Position</b>	<b>Organization</b>	<b>Course Taught/ Prime Activity</b>	<b>Duration/ Tenure</b>
Assistant Professor	Department of Pharmacy, Pabna University of Science and Technology (PUST), Pabna-6600, Bangladesh. (www.pust.ac.bd)	Pharmacology, Biopharmaceutics, Physiology & Anatomy, Microbiology & Immunology, Organic Chemistry, Medicinal Chemistry, Advanced Pharmaceutical Analysis, Clinical Pathology.	Nov, 2015 to Present
Lecturer	Department of Pharmacy, PUST.	Chemistry, Medicinal Chemistry, Advanced Pharmaceutical Analysis, Clinical Pathology.	Oct, 2013 to Oct, 2015
Lecturer	Department of Pharmacy, Southeast University, Dhaka, Bangladesh.	Pharmacology, Biopharmaceutics, Physiology & Anatomy, Microbiology & Immunology, Organic Chemistry, Medicinal Chemistry, Advanced Pharmaceutical Analysis, Clinical Pathology.	Jan, 2013 to Sep, 2013
Product Officer	Product and Development Department, Aristopharma Limited, Dhaka, Bangladesh.	Product Marketing and Development, Promotion New Drug Launch.	Apr, 2012 to Dec, 2012

### **Awards and Training:**

1. 'Outstanding Academic Achievement Scholarship' from Bangladesh Scholarship Council (BSC) (2005–2006 academic year).
2. Education medal by Mayor of Rajshahi City Corporation, 2004.
3. Certificate of Completion on Basic Life Support (BLS) Training by Japan Life Support Association, 2010.

### **Administrative Activity:**

1. Chairman, Department of Pharmacy, PUST. (From 27.04. 2017 to 26.04.2020)
2. Assistant Proctor, PUST. (From September, 2014 to June, 2018)
3. Core Member, Student Admission Committee. (2018-19 and 2019-20 session)
4. Member, Security and Management Committee, Student Admission Committee. (2014-15, 2015-16, 2016-17 and 2017-18 session)

### **Mentoring and Other Academic Activity:**

1. Project Supervisor for twelve (12) PUST undergraduates. (2019 and 2020)
2. Hospital Training Supervisor for seven (07) PUST undergraduates. (2020)
3. Coordinator, First Batch, Department of Pharmacy, PUST.
4. Assisted in preparation, execution and developments of laboratory section. Developments of advanced research laboratory and preparation of laboratory budget, Department of Pharmacy, PUST. (Oct, 2013 to Present)
5. Received 95% excellence record as teacher of Southeast University, Dhaka, Bangladesh rating for teaching effectiveness from student survey. (2013)

### **Community / Other Service:**

1. President, Pharmacy Association, PUST, Pabna-6600, Bangladesh. (2017 to 2020)
2. President, Notun Surjodoy, PUST, Pabna-6600, Bangladesh. (Nov, 2015 to Present)
3. Secretary, Syeed Amir Ali Hall, SWAJON , Rajshahi University (2010)
  - An organization of voluntary blood donors.
4. Active Member of Bagha Thana Somiti, Rajshahi University (2008 to 2012)
  - Helped poor student of Bagha Thana, Bangladesh.

### **References:**

**Dr. Md. Ekramul Islam**  
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Signature



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