

**SOHIDUL ISLAM PhD****OFFICIAL ADDRESS**

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**ACADEMIC QUALIFICATIONS:**

<b>Degree</b>	<b>Subject</b>	<b>Institution</b>	<b>Result</b>	<b>Year</b>
<b>PhD</b>	Clinical Bacteriology	Karolinska Institutet, Sweden	Degree Awarded	2008
<b>MS</b>	Biochemistry	University of Dhaka, Bangladesh	First Class	2000
<b>BS</b>	Biochemistry	University of Dhaka, Bangladesh	First Class	1998

**EMPLOYMENT EXPERIENCE****1. ASSOCIATE PROFESSOR, AT THE DEPARTMENT OF BIOLOGY & CHEMISTRY, NORTH SOUTH UNIVERSITY, DHAKA, BANGLADESH (March 2015 to Date)**

- Actively engaged in teaching of **one** GED course: Biology 1 and **Seven** core courses including Organic Chemistry, Chemistry of Natural Products, Cell Biology, Molecular Genetics, Human Physiology, Endocrinology, Neurochemistry
- Responsible for numerous academic and administrative responsibilities in the department which encompass advising students during the beginning of the semester, active member in the evaluation board in oral exam board, departmental seminars and scientific presentations

**2. ASSISTANT PROFESSOR (FULL TIME), AT THE DEPARTMENT OF BIOLOGY & CHEMISTRY, NORTH SOUTH UNIVERSITY, DHAKA, BANGLADESH (May 2010- March 2015)**

- Same as above

**3. ASSISTANT PROFESSOR (PART TIME), AT THE DEPARTMENT OF BIOLOGY & CHEMISTRY, NORTH SOUTH UNIVERSITY, DHAKA, BANGLADESH (Jan 02, 2010- May 16)**

- Successfully instructed 2 (two) core courses; Molecular Genetics and Human Physiology at the Department of Life Sciences, North South University.

**4. POSTDOCTORAL ASSOCIATE, DEPARTMENT OF MOLECULAR GENETICS AND MICROBIOLOGY AT DR. JORGE A. GIRON'S LAB, UNIVERSITY OF FLORIDA (January 2009- Sept 2009)**

To characterize adherence factors and auto-transporter in enteroaggregative *E. coli* (EAEC), design and perform experiments to,

- Study the proteins involved in attachment and cytotoxicity of EAEC to different cell lines
- Study the involvement of receptors on mammalian cancer cells involve in the adherence *E. coli*
- Cloning, expression and purification of recombinant protein involved in pili biogenesis
- Use front-end techniques of molecular biology and proteomics
- Study the adherence and infection of *EAEC in-vitro*
- Collaborate with different projects in our group, connected with the same general aim
- Biogenesis of type-4-pili in enterohaemorrhagic *E. coli*

**5. POSTDOCTORAL ASSOCIATE, DEPARTMENT OF IMMUNOBIOLOGY AT DR. JORGE A. GIRON'S LAB, UNIVERSITY OF ARIZONA (May 2008 to December 2008)**

- Similar activities as mentioned in previous position

## **6. RESEARCH OFFICER, ICDDR, B (2000 To 2001)**

- Isolation and identification of the pathogens from blood and nasopharyngeal aspirate from children less than three years of age suffering from acute lower respiratory tract infections (ALRI) by using classical microbial to advanced molecular techniques
- Analysis of immune response by numerous immunological methods to establish a relationship between immune response and pathogenicity of specific type of microorganism
- Processing of biopsy sample for immune-histochemistry to analyze the expression different cytokines and purification of genetic material for molecular biology analysis to corroborate the immune-histochemistry data Establishment and optimization of PCR for *S. pneumoniae* and *H. influenza* detection from blood and NPA samples from Bangladeshi patients
- Assay of viral agents causing disease in children with ARI by ELISA
- To observe the sensitivity pattern of *H. influenzae* and *S. pneumoniae* to antibiotics commonly used in ARI

## **PROFESSIONAL ORGANIZATIONS MEMBERSHIPS**

- Graduate Biochemists Association, Bangladesh
- Bangladesh Biosafety and Biosecurity Association (BBBA)
- Bangladesh Society for Biochemistry and Molecular Biology

## **CERTIFICATES AND TRAININGS**

- Shipping and transport of Biological Materials, University of Florida (2009)
- Methods and Applications in Molecular Biology & Biotechnology, (2C), Karolinska Institutet (2005)
- Molecular techniques in Biology with special focus on Microarray Technique, (2C) KI (2005)
- Molecular Methods used in the Control of Hospital Infections, (1C), KI (2005)
- Laboratory Animal Science, (3C), KI (2004)
- Ecology and the Importance of indigenous flora, (1C), KI (2004)
- Bioinformatics on the Internet – Introduction for Molecular Biologists, (1pt), KI (2004)
- Novel Practical Biotechnology, (1C), KI (2003)
- Core courses in General Science, (5C) KI (2003)
- Immunology Basic Course, (1C) KI, (2002)
- Basic course in Clinical Bacteriology, (5C), KI (2002)

## **RESEARCH EXPOSURE**

- Gene expression analysis by microarray and qualitative/quantitative realtime PCR, RTPCR
- Cloning and expression of recombinant proteins, PAGE, IEF and Western blot
- Pyrosequencing from clinical samples to identify specific pathogen, direct sequencing to identify insertions caused by insertional mutagenesis
- Site-directed and PCR-based mutagenesis to knock out a single gene or a whole operon.
- Immunological methods to identify and quantify expression of proteins, ELISA and FACS to determine the level of cytokines and/or surface markers, ELISPOT; to identify level of B or T cell stimulation
- Cell culture techniques: to analyze various markers (transcriptional and translational level) after infection with bacteria or virus, stimulation and cell proliferation assay.
- Immunofluorescence and Immunoelectron microscopy (Transmission and Scanning) for direct identification and/or visualization of cellular processes

## **SUPERVISING PROJECT STUDENTS**

1. Comparison of antioxidant content of Bangladeshi fruits and develop a dietary guideline. (No. of students: 03)
2. Enzyme isolation from environmental bacterial for industrial and biodegradation purpose. (No. of students: 04)
3. Isolating and evaluating antimicrobial activity of plants natural products. (No. of students: 02)

## **PUBLICATIONS & PRESENTATIONS**

### **International Papers**

1. Fabiola Avelino, Zeus Saldaña, **Sohidul Islam**, Valerio Monteiro-Neto, Monique Dall'Agnol, Carlos E Eslava, Jorge Giron. The majority of enteroaggregative *Escherichia coli* strains produce the E. coli common pilus when adhering to cultured epithelial cells; *Int J Med Microbiol.* **2010; 300(7):440-8.**
2. Andresen, Cecilia; Jalal, Shah; Aili, Daniel; Wang, Yi; **Islam, Sohidul**; Jarl, Anngelica; Liedberg, Bo; Wretling, Bengt; Martensson, Lars-Goran; Sunnerhagen, Maria. Critical biophysical properties in the *Pseudomonas aeruginosa* efflux gene regulator MexR are targeted by mutations conferring multidrug resistance; *Protein Sci.* **2010; 19(4): 680–692**
3. **Islam S**, Oh H, Jalal S, Ciofu O, Høiby N and Wretling B. Chromosomal mechanisms of aminoglycoside resistance in *P. aeruginosa* isolates from cystic fibrosis patients. *Clinical Microbiology & Infect*, **2009; 15(1):60-6**
4. Farra A, **Islam S**, Strålfors A , Sörberg M and Wretling B. Role of outer membrane protein OprD and penicillin-binding proteins in *Pseudomonas aeruginosa* resistance to imipenem and meropenem. *Int J Antimicrob Agents*, **2008; 31 (5): 427-33**
5. Lindback E, **Islam S**, Unemo M, Lang C and Wretling B. Transformation of ciprofloxacin-resistant *Neisseria gonorrhoeae gyrA*, *parE* and *porB1b* genes. *Int J Antimicrob Agents*, **2006; 28(3):206-11**
6. **Islam S**, Jalal S and Wretling B. Expression of the MexXY efflux pump in amikacin-resistant isolates of *Pseudomonas aeruginosa*. *Clinical Microbiology & Infect*, **2004; 10(10): 877-83**

### **National Journals**

1. **Sohidul Islam**, Lamyah Sultana Meem, Kazi Nadim Hasan, Md. Abdul Khaleque, Donald James Gomes, Obaidur Rahman. Multidrug resistance of *Pseudomonas aeruginosa* isolated from burn patients. *Bang J Med Sci.* **2012 Sep; 18(02): 132-134.**
2. Kazi Nadim Hasan, Fahmida Nasrin, Md. Abu Taher, Sharif Neaz, **Sohidul Islam**, Obaidur Rahman, Israt Jabeen, Md. Abdul Khaleque, Sharif Akhteruzzaman. Comparative Analysis of HCV RNA, Anti-HCV and Liver Transaminase Levels as Markers and Predictors of Infectivity in Hepatitis C Virus Infection. *Bang J Med Sci.* **2012 Sep; 18(02): 120-125.**
3. Dietary Intake of Urea from Puffed Rice (Muri) in Bangladesh; Obaidur Rahman, Kazi Nadim Hasan, Abdul Khaleque, Israt Jabeen, **Sohidul Islam**. *Bang J Med Sci.* **2012 March; 18(1): 58-61.**

## **CONFERENCES ATTENDED**

### **ORAL PRESENTATION**

- 16<sup>th</sup> European Congress of Clinical Microbiology and Infectious Diseases Nice, France, April 1-4, 2006 – Oral presentation (Abstract Number : O126)

### **POSTER PRESENTATION**

- 15<sup>th</sup> European Congress of Clinical Microbiology and Infectious Diseases Copenhagen, Denmark, April 2-5, 2005 – Poster presentation (Abstract Number: 1134\_03\_48)
- 103<sup>RD</sup> General Meeting American Society for Microbiology Washington, DC; May 18- 22, 2003 – Poster presentation (Poster Number A-149 )
- 12<sup>th</sup> European Congress of Clinical Microbiology and Infectious Diseases Milan, Italy, April 21-24, 2002 – Poster presentation (Abstract Number: P1072)

**REFERENCES:**

1. Ishtiaq Mahmud, Professor  
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