Dr. A. K. M. MONIRUZZAMAN MOLLAH (SHOPON)
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Yonkers, NY 10701, U.S.A.
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Citizenship: American (U.S.A.)

ACADEMIC POSITIONS:

2017-Present: *Head, Science & Math Program*, Asian University for Women, Chittagong, Bangladesh.
2013-2017: *Chair, Science & Math Program*, Asian University for Women, Chittagong, Bangladesh.
2012-Present: *Associate Professor*, Asian University for Women, Chittagong, Bangladesh.
2008-2012: *Lecturer*, Stony Brook University, New York, U.S.A.
2001-2008: *Assistant Professor*, Department of Biology, Yeshiva University, New York, U.S.A.
2000-2001: *Visiting Assistant Professor*, Department of Biology, Yeshiva University, New York, U.S.A.
Spring 2000: *Adjunct Professor*, Department of Biology, Stern College for Women, New York, U.S.A.
Fall 90, Spring 91 & 94: *Teaching Assistant,* Department of Biology, University of Notre Dame, Indiana, U.S.A.

OTHER POSITIONS:

2010-2012: *School Board Chairman*, Andalusia School, Yonkers, New York, U.S.A.
2008-2011: *Science Curriculum Supervisor*, Andalusia School, Yonkers, New York, U.S.A.
2008-2011: *Guidance Counselor*, Andalusia School, Yonkers, New York, U.S.A.
2004-2008: *Advisor*, Academic Advising Center, Yeshiva University, New York, U.S.A**.**

EDUCATION/TRAINING:

2011: *MBA in Finance*, Stony Brook University, Stony Brook, NY, U.S.A.
2000: *Post-Doctoral Fellow*, Department of Biochemistry, Albert Einstein College of Medicine, New York, U.S.A.
Project: Kinetic and thermodynamic analysis of the binding of TATA binding protein (TBP) from *Saccharomyces cerevisiae* to the adenovirus major late promoter (MLP) and its mutants.
Advisor: Dr. Michael D. Brenowitz
1996: *Ph.D. in Molecular Biology*, Department of Biology, University of Notre Dame, Notre Dame, Indiana, U.S.A.
Thesis: Stability and Engineering of Lambda Cro repressor variants.
Advisor: Dr. Michael C. Mossing.
1990: *B.A. in Biology*, Chemistry minor, Illinois Wesleyan University, Bloomington, Illinois, U.S.A.

COURSES TAUGHT:

General Biology, General Chemistry, Cell Biology, Molecular Biology, Forensic Science, Nutrigenetics, Biochemistry, Environmental Microbiology, Genes and Genomes, Conservation Genetics, Bioinformatics, Computational Biology, Cellular and Organ Physiology, Ecological and Social Dimensions of Disease, Sustainable Natural Resources, AbbVie Lecture, Science Lab Methodology and Research Methods.

RESEARCH INTERESTS:

Regulation of gene expression by Macromolecular Associations; Protein structure and function; Designing and Modeling of three dimensional structures of proteins; Evolution of protein structures; Biodegradation of synthetic materials by microbes; Antibiotic properties of Natural products.

TECHNICAL SKILLS:

Molecular Biology Techniques: Quantitative Nuclease I Protection (DNase I & Synchrotron Light Source), Electrophoresis, Cloning, Site-directed mutagenesis, PCR, Sequencing, Protein engineering /expression/ purification, SDS PAGE, and FPLC.
Bioinformatics: Sequence retrieval and analysis & protein designing and modeling.
Spectroscopic Techniques: UV-Vis, CD, Fluorescence, NMR, and Bio-Sensors (Affinity).
Others: DSC (Microcalorimetry) for Thermodynamic and Kin-Tek (Stopped Flow) for Kinetics assay.

HONORS AND FELLOWSHIPS:

University of Notre Dame BBMB Fellowship	1992-1993
University of Notre Dame Research Assistantship	1994 &1995

GRANTS:

DAAD's grant on project titled “German-Bangladesh University Cooperation in the Textile and Clothing Sector 2018-2019”. Total Grant received **213,014 EURO.**

EU Grant on project titled "Transformative Competency-Based Public Health Education for Professional Employability in Bangladesh’s Health Sector/TRANS4M-PH". Total Grant received **995,000 EURO**.

PUBLICATIONS:

Nabila Ishaque Ira, Nema Marjana and **A.K.M Moniruzzaman Mollah (2019)** Identification of Satellite colonies from Antibiotic Resistance Bacteria in Hospitals-Chittagong, Bangladesh. (*In Preparation*).

Shah Nan Das, Md. Abul Kashem and **AKM Moniruzzaman Mollah**. (**2019**). Waste Management of Mango Pulp from PRAN Agro Ltd., Natore, Bangladesh. (*In Preparation*).

AMAM Zonaed Siddiki, DVM, MS, PhD; Abdul Baten; Masum Billah; Mohammad Atique Ul Alam; Kazi Shefaul Mulk Shawrob; Sourav Saha; Muntaha Chowdhury; Atif Hasan Rahman; Michael Stear; Gous Miah; Mahadia Kumkum; Md. Sirazul Islam; Mohammad Alamgir Hossain; **AKM Moniruzzaman Mollah**; Md. Kabirul Islam Khan **(2019)**. The genome of the Black Bengal goat (*Capra hircus*), *BMC Research Notes,*12:362, https://doi.org/10.1186/s13104-019-4400-3

AMAM Siddiki, Atif Rahman, Michael Stear, Md. Kabirul Khan, Gous Miah, Masum Billah, Mohammad Alam, Kazi Shefaul Shawrob, Mahadia Kumkum, Sourav Saha, Muntaha Chowdhury, AKM Mollah, and Abdul Baten (2019). Complete Mitochondrial Genome Sequence of Black Bengal Goat (*Capra hircus*). *Mitochondrial DNA Part B: Resources.* https://www.tandfonline.com/loi/tmdn20

Nabila Ishaque Ira, Nema Marjana and **A.K.M Moniruzzaman Mollah (2019).** Antibiotic Resistance Bacteria in Tertiary Hospitals in Chittagong, Bangladesh**.** International Journal of Scientific Engineering and Science, *ISSN (Online)*: *2456-7361, Volume 3, Issue 5, pp. 18-21, 2019.*

Sabrina H. Wadood , Fatima Tuz Zohra and **AKM Moniruzzaman Mollah**. (**2018**). Biodegradation of Polyethylene Terephthalate (PET or PETE) and High Density Polyethylene (HDPE) Using Microbes Isolated from Waste Dumping Sites in Chittagong, Bangladesh. International Journal of Advances in Science Engineering and Technology, ISSN(p): 2321 –8991, ISSN(e): 2321 –9009 Vol-6, Iss-3, Spl. Issue-1 Aug.-2018.

Misja Mumthaj Abul Muhseen, Md. Shoffikul Islam, Md. Abul Kashem and **AKM Moniruzzaman Mollah**. (**2018**). Influence of lherzolite on the growth of Chinese spinach and soil respiration in cadmium contaminated soil. Journal of Environmental Protection (JEP) Vol. 9: 790-800.

Nikita N. Naik, Nabila I. Ira, Sabrina Wadood, and **A. K. M. M. Mollah. (2017).** Quantification of DNA damage due to UV irradiation and Formalin, International Journal of Advances in Science, Engineering and Technology (IJASEAT), 5,3 (Spcl Iss-2).

Fariha Natasha, Kuheli Dutta, **AKM Moniruzzaman Mollah**. (**2015**). Antimicrobial and Decontamination Efficacy of Neem, Aloe Vera and Neem + Aloe Vera in Gutta Percha (GP) Cones using *Escherichia coli* and *Staphylococcus aureus* as contaminants**.** Asian Jr. of Microbiol. Biotech. Env. Sc. Vol. 17, No. (4) : 2015 : 139-142.

Shahin Sultana, Md. Abul Kashem, **AKM Moniruzzaman Mollah**. (**2015**). Comparative Assessment of NPK fertilizers and Cow Manure Vermicompost on the growth and production of Zinnia *(Zinnia elegans*) flower. Open Journal of Soil Science 2015, 5.

Tabashsum, Z., Ibrahim Khalil, I., Nazim Uddin, N., **Mollah, A.K.M.M.,** Yasuhiro Inatsu, Y., & Bari, L.,(**2013**). Prevalence of Foodborne Pathogens and Spoilage Microorganisms and their Drug resistant status in different street foods of Dhaka city. *AFAB, 3(4): 281-292* .

Gupta, S., Cheng, H., **Mollah, A.K.M.M.,** Jamison, E., Morris, S., Chance, M., Khrapunov, S., & Brenowitz, M.(**2007**). DNA and protein footprinting analysis of the

modulation of DNA binding by the N-terminal domain of the Saccharomyces cerevisiae TATA Binding Protein. *Biochemistry, 46 (35):9886-98.*

Mollah, A.K.M.M., Stennis, R.L., Mossing, M. (**2003**). Stability of monomeric Cro variants: Isoenergetic transformation of a type I' to a type II' beta hairpin by single amino-acid replacements. *Protein Sci. 12(5).*

Cloutier, T.E., Librizzi, M.D., **Mollah, A.K.M.M**., Brenowitz, M., & Willis, I.M. (**2001**). Kinetic Trapping of DNA by Transcription Factor IIIB. *PNAS USA, Aug 14; 98(17) 9581-6.*

Rupert, P.B., **Mollah, A.K.M.M**., Mossing, M., Matthews, B.W. (**2000**). The Structural Basis for Enhanced Stability and Reduced Binding Seen in Engineered Second-Generation Cro Monomers and Dimers. *J. Mol. Biol. 296 (4) 1079-1090.*

Jana, R., Hazbun, T., **Mollah, A.K.M.M**., and Mossing, M. (**1997**). A Folded Monomeric Intermediate in the Formation of Lambda Cro Dimer-DNA Complexes. *J. Mol. Biol. 273: 402-416.*

Mollah, A.K.M.M., Aleman, M., Albright, R.A., and Mossing, M. (**1996**). Core Packing Defects in an Engineered Cro Monomer Corrected by Combinatorial Mutagenesis. *Biochemistry, 35:743-748.*

BOOK CHAPTERS:

Kushnir, A., **Mollah, A.K.M.M.** & Wehrens, X.H. **(2005).** Evolution of the Ryanodine Receptor Gene Family. *Ryanodine Receptors: Structure, Function, and Dysfunction in Clinical Disease. Springer Science + Business Media, Inc. Page 1-8.*

Dhavan, G., **Mollah , A.K.M.M**., & Brenowitz, M. (**2002**). Probing Kinetic and Equilibrium Binding Properties of DNA-Protein Complexes by Quantitative DNaseI I Footprinting. *Advances in DNA Sequence Specific Agents 04: 139-155.*

Mollah, A.K.M.M. & Brenowitz, M. (**2000**). Quantitative DNase I Kinetics Footprinting. *DNA Protein Interactions: Practical Approach. Oxford University Press, Page 281-290.*

PROFESSIONAL SOCIETIES:

Asian Food Safety and Security Association (AFSSA).
American Society for Biochemistry and Molecular Biology (ASBMB).
Biophysical Society.
International Society for Computational Biology (ISCB)

SERVICE:

Chair, AUW Faculty, Asian University for Women, Chittagong, Bangladesh
Member, Academic Policy Committee, Asian University for Women, Chittagong, Bangladesh

Member, Academic Judiciary Committee, Stony Brook Southampton, Southampton, U.S.A.
Advisor, Academic Advising Center, Yeshiva University New York, U.S.A.
Advisor, Undergraduate Student Research Presentation (USRP) Club, Yeshiva University, New York, U.S.A.

LANGUAGES:

English, Bangla, and Thai.

REFERENCES:

Available upon request.