# Curriculum Vitae of Muhammad Manjurul Karim

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Date and place of birth Nov 27, 1970, Dhaka, Bangladesh

Nationality Bangladeshi Marital status Married



#### Education

<u>Post-doc</u> (2002-2004): Worked in the Department of Biochemistry, McGill University, Montréal, Canada. (mentor: Professor Nahum Sonenberg, James McGill Professor)

Project title: Molecular mechanism of Paip2-mediated 3' end dependent translation regulation

<u>PhD</u> (1997-2000): Obtained in Molecular Biology from the Department of Biomolecular Sciences, University of Manchester Institute of Science and Technology (UMIST) (now known as University of Manchester), Manchester, UK. (Mentor: Prof John EG McCarthy)

Thesis title: Translation Regulation by 4E-Binding Proteins

MSc (1991-1992, Exam held in 1995): Obtained in Microbiology from the Department of Microbiology, University of Dhaka, Bangladesh, and was awarded First class (67.6%). A thesis was submitted for the partial fulfillment of the degree working in the Immunology laboratory of International Center for Diarrheal Diseases Research, Bangladesh (ICDDR, B), Dhaka, Bangladesh. (mentor: Dr. Firdausi Qadri, Emeritus Scientist of the center)

Thesis title: Cholera toxin specific subclass distribution of IqG and IqA isotypes in patients with cholera

- **BSc (Honors)** (1988-1991, Exam held in 1993): Obtained in Microbiology from the Department of Microbiology, University of Dhaka, Bangladesh, and was awarded **First class** (68.5%). Botany and Biochemistry were studied as minor subjects.
- HSC (Higher Secondary Certificate) (1986-1988): Obtained from the Secondary and Higher Secondary Education Board, Rajshahi, studying in Pabna Cadet College, Pabna. First Division (85.2%) was obtained and was placed 17<sup>th</sup> in the combined merit list position in Rajshahi Board, Bangladesh.
- (Secondary School Certificate) (1986): Obtained from the Secondary and Higher Secondary Education Board, Rajshahi, studying in Pabna Cadet College, Pabna. First Division (81%) was obtained.



# Experience

Period	Position held	Name of the Institution
Feb 2011-	Professor	Department of Microbiology
Onwards		University of Dhaka, Dhaka, Bangladesh
Oct 2005-	Associate Professor	Department of Microbiology
Feb 2011		University of Dhaka, Dhaka, Bangladesh
Nov 2002-	Post-doctoral Fellow	Department of Biochemistry,
Oct 2004		McGill University, Montreal, QC, Canada
Jun 2001-	Assistant Professor	Department of Microbiology
Oct 2005		University of Dhaka, Dhaka, Bangladesh
Sep 1997-	Graduate Student	Department of Biomolecular Sciences,
Dec 2000		UMIST, Manchester, M60 1QD, UK
Jan 1997-	Lecturer	Department of Microbiology
Jun 2001		University of Dhaka, Dhaka, Bangladesh
Jan 1996-	Research Officer	Immunology Laboratory, LSD,
Apr 1996		icddr,b, Mohakhali, Dhaka, Bangladesh
Jun 1993-	Research Student	Immunology Laboratory,
Dec 1995		LSD, icddr,b, Dhaka, Bangladesh

#### Research interests

- 1. Plant Growth-Promoting Rhizobacteria and their application under changing climate conditions;
- 2. Outbreak investigation in aquaculture crops, and Probiotic Technology for control and management;
- 3. *In vitro* diagnostics of neglected tropical diseases;
- 4. Recombinant gene products and their application in biotech industries, and
- 5. Scientometrics

#### International collaboration

- Professor Mohammad Tariqur Rahman, PhD
   Faculty of Dentistry, University Malaya, Kuala Lumpur 50603, Malaysia | tarique@um.edu.my
- 2. Professor Ashfaque Hossain, PhD Department of Medical Microbiology and Immunology, RAK Medical and Health Sciences University, PO Box 11172, Ras Al Khaimah, UAE | ashfaque@rakmhsu.ac.ae
- Professor Mark Lilles, PhD
   Rouse Life Science Bldg. Auburn University, AL 36849 of Biology, USA | <u>lilesma@auburn.edu</u>

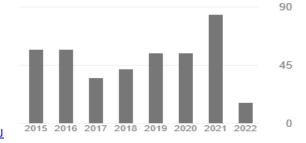
# **Publication profile**

My Citation indices (by Google Scholar)

	All	Since 2017
Citations	883	294
h-index	14	10
i10-index	15	10



https://scholar.google.com/citations?hl=en&user=buC8e7YAAAAJ



#### List of Publications (total impact: 66.11)

- R Sultana, TR Bhuiyan, AS Sathi, S Sharmin, S Yeasmin, MI Uddin, MS Bhuiyan, K Mannoor, MM Karim, K Zaman and F Qadri. 2022. Optimizing and validating an Enzyme linked Immunosorbent Assay Method for detecting HEV IgG from Dried Blood Spot (DBS) samples. Microbes and Infection. 24 (2), 104890, https://doi.org/10.1016/j.micinf.2021.104890 (IF 2.7)
- 2. Karim MM, Sultana S, Sultana R and Rahman MT. 2021. Possible benefits of Zinc supplement in CVD and COVID-19 comorbidity. *Journal of Infection and Public Health*. 14, 1686–1692 (IF 3.718) https://doi.org/10.1016/j.jiph.2021.09.022
- **3.** MS Hoque, MAS Ripon, MB Hossain, MA Rahman, MM Hasan, BD Mithun, A Saha, S Chakma, MN Jaman, A Rahman, **MM Karim.** 2021. Quality assessment and molecular identification of bacteria across the black tiger shrimp (*Penaeus monodon*) supply chains in southern Bangladesh. *International Aquatic Research.* **13** (3) 173-184. (IF 0.984) https://doi.org/10.22034/IAR.2021.1924974.1142
- **4.** Rahman MT, Regenstein JM, Kassim NLA, **Karim MM**. 2021. Contribution based author categorization to calculate author performance index. *Accountability in Research: Policies and Quality Assurance*. **28** (8) 492-516. (IF 1.458) https://doi.org/10.1080/08989621.2020.1860764
- **5.** Jhuma TA, Rafeya J, Sultana S, Rahman MT, and **Karim MM**. 2021. Isolation of endophytic salt-tolerant plant growth-promoting rhizobacteria from *Oryza sativa* and evaluation of their plant growth-promoting traits under salinity stress condition. *Frontiers in Sustainable Food System*, **5**, 250. <a href="https://www.frontiersin.org/articles/10.3389/fsufs.2021.687531/full">https://www.frontiersin.org/articles/10.3389/fsufs.2021.687531/full</a> (CiteScore **2.4**)
- **6.** Sultana S, Alam S, and **Karim MM**. 2021. Screening of siderophore-producing salt-tolerant rhizobacteria suitable for supporting plant growth in saline soils with iron limitation. *Journal of Agriculture and Food Research*. **4**, 100150 (Elsevier) <a href="https://doi.org/10.1016/j.jafr.2021.100150">https://doi.org/10.1016/j.jafr.2021.100150</a>
- 7. Sultana R, Islam MT, Bhuiyan GS, Noor FA, Sarker SK, Maliha N, Hassan Z, Hossain M, Rashid M, Zaman K, Karim MM, Qadri F, Mannoor K. 2021. IgG antibody response demonstrates inverse correlation with viral load in Bangladeshi women with acute Hepatitis E virus Genotype 1 infection. International J of Infectious Disease 104, 482-490 (IF 3.623) https://doi.org/10.1016/j.ijid.2020.12.081
- 8. Sultana S, Saha A, Khan SN and **Karim MM**. 2021. An asymptomatic case report with prolonged viral clearance: an issue to ponder COVID-19 control and containment. *Bangladesh J Medical Sciences*. 20 (1) 187-9 (IF 0.17) https://doi.org/10.3329/bjms.v20i1.50368
- Sultana S, Hossain A and Karim MM. 2021. Gut-Microbiome management: an issue worth considering in COVID-19 treatment. *International Journal of Pharmaceutical Sciences and Research*.
   12 (1) 1-7 (IF 1.230) <a href="https://dx.doi.org/10.13040/IJPSR.0975-8232.12(1).1-7">http://dx.doi.org/10.13040/IJPSR.0975-8232.12(1).1-7</a>
- 10. Sultana S, Paul SC, Parveen S, Alam S, Rahman N, Jannat B, Hoque S, Rahman MT and Karim MM. 2020. Isolation and identification of salt-tolerant plant growth-promoting rhizobacteria and its application for rice cultivation under salt stress. Canadian J Microbiol. 66 (2) 144-160 (IF 1.625) <a href="https://doi.org/10.1139/cjm-2019-0323">https://doi.org/10.1139/cjm-2019-0323</a>
- **11.** Hasan MM, Khan SN, **Karim MM**, Begum A, Hoq MM. 2019. Complete Genome and Plasmid Sequence of a Novel *Bacillus* sp. BD59S, a Parasporal Protein Synthesizing Bacterium. *3 Biotech.* **9**: 318. (https://doi.org/10.1007/s13205-019-1849-7) (IF 1.798). (Springer)
- **12.** Aktar N, **Karim MM**, Khan SN, Rahman M, Begum A, Hoq MM. 2019. *In silico* studies of Parasporin proteins: Structural and functional insights and proposed cancer cell killing mechanism for parasporin 5 and 6. *Microbial Bioactives*, **2** (1) 82-90. <a href="https://doi.org/10.25163/microbioacts.21007A0621280219">https://doi.org/10.25163/microbioacts.21007A0621280219</a>
- **13.** Sultana S, Paul SC and **Karim MM**. 2018. Salinity intrusion and coastal agriculture: Adaptation strategies using salt-tolerant Plant Growth Promoting Rhizobacteria for sustainable food security. *Regional Problems*. **21** (3) 58-61. (https://doi: 10.31433/ 1605-220x-2018-21-3(1)-58-61)

- **14.** Chakrabarty RP and **Karim MM**. 2018. Anaerobic Bacteria in Oral Cavities and Dental Health. *Annals of Dentistry University of Malaya*, **25** (1) 11-16.
- **15.** Rahman MT, Mumu MA, Hossain A, Banu S and **Karim MM.** 2018. Is tuberculosis a risk factor for different prostatic lesions including prostate cancer in Bangladesh? *Clinics of Oncology*. **1**(1): 1-2.
- **16.** Khatun M, Alam SMA, Khan AH, Hossain MA, Haq JA, Jilani MSA, Rahman MT and **Karim MM**. 2017. The novel PCR primers to diagnose Visceral Leishmaniasis using peripheral blood, spleen or bone marrow aspirates. *Asian Pacific Journal of Tropical Medicine*. **10** (8) 753-759. (IF 1.940) (Elsevier) <a href="https://doi.org/10.1016/j.apjtm.2017.08.002">https://doi.org/10.1016/j.apjtm.2017.08.002</a>
- **17.** Rahman MT and **Karim MM**. 2017. Metallothionein: a potential link in the regulation of zinc in nutritional immunity. *Biological Trace Element Research* (DOI: 10.1007/s12011-017-1061-8) (IF 2.431)
- **18.** Hossain FE, Ramim AM, Rahman MS, Faruque AMO, Naser MN and **Karim MM**. 2017. Identification of bacterial agents causing mortality in post-larvae of giant freshwater prawn (*Macrobrachium rosenbergii*) in southwest coastal districts of Bangladesh. *Aquaculture Research*, **48** (7) 3545-3555 <a href="https://doi.org/10.1111/are.13180">https://doi.org/10.1111/are.13180</a> (IF 1.748) (Wiley)
- **19.** Mumu MA, Rahman MT, Hossain Ashfaque, Banu S and **Karim MM**. 2016. Tuberculous prostatitis is rare in prostate cancer patients of Bangladesh. *Bioresearch Communications* 2(2) 275-8.
- **20.** Nahar M, Shishir A, Waliullah S, Haque MS, Ilias M, **Karim MM**, Khan SN and MM Hoq. 2016. Cloning, expression and structure simulation of keratinase from *Bacillus licheniformis* strain MZK05. *Malaysian Journal of Microbiology*. **12**(2) 182-90. DOI:10.21161/mjm.78515 (IF 0.48)

# 2006-2015

- **21.** Shoeb M, Hasan Z, Saha NK, **Karim MM** and Nahar N. 2013. Antimicrobial activity of carbazole alkaloids from *Murraya koenigii* (L) Spreng leave. *International Journal of Medicinal and Aromatic Plants*. 3(2) 131-5.
- **22.** Farzana T, Rahman S, Naser MN and **Karim MM**. 2013. A molecular insight of some probiotic bacteria to address their antagonistic activity against pathogenic vibrios causing shrimp mortality. *Journal of Bangladesh Academy of Sciences.* **37**(1) 115-120.
- **23.** Rahman Mahdia, Mostafa MG and **Karim MM**. 2012. The bactericidal activity of a medicinal plant, *Terminalia chebula* is enhanced upon addition of Manganese salts. *International Journal of Medicinal and Aromatic Plants.* **2** (2) 214-8.
- **24.** Akter F, Amin MR, Osman KT, Anwar MN, **Karim MM** and Hossain MA. 2012. Ciprofloxacin resistant *Escherichia coli* in hospital wastewater of Bangladesh and prediction of its mechanism of resistance. *World Journal of Microbiology and Biotechnology*. **28** (3): 827–834 (IF 2.652) (Springer)
- **25. Karim MM**. 2012. Gene therapy: The molecular bandage for treating genetic disorders. *Anwer Khan Modern Medical College Journal*. **3**(1) 24-27.
- **26.** Sultana GNN, Rahman A, **Karim MM**, Shahinuzzaman ADA, Begum R and Begum RA. 2011. Breast cancer risk associated mitochondrial NADH-dehydrogenase subunit-3 (ND3) polymorphisms (G10398A and T10400C) in Bangladeshi women. *Journal of Medical Genetics and Genomics*. **3**(8) 131–135.
- **27.** Mostafa MG, Rahman Mahdia and **Karim MM**. 2011. Antimicrobial activity of *Terminalia chebula*. *International Journal of Medicinal and Aromatic Plants*. **1** (2) 175-179.
- **28.** Rahman S, Khan SN, Naser MN and **Karim MM**. 2011. Safety issues of isolated probiotic natured bacteria from Bangladesh coastal waters for controlling shrimp diseases. *Journal of Scientific Research*, **3** (3) 659-668.
- **29. Karim MM** and Rahman MT. 2011. Return of Nipah virus: Bangladesh perspective. *Bangladesh Journal of Pathology.* **26** (1) 23-25.

- **30.** Farjana S, Rahman HA, Moni S, Hoque W, Borua S, **Karim MM**, Azim T, Rahman M. 2011. Clinical presentations and molecular characterization of group B rotaviruses in diarrhea patients in Bangladesh. *Journal of Medical Microbiology*, **60**, 529–536. (IF 2.514)
- **31.** Amin MR, Mahbub AHM, Sikder AR and **Karim MM**. 2010. Prediction of the post-translational modification sites on dengue virus E protein and deciphering their role in pathogenesis. *International Journal of Bioinformatics Research and Applications*. **6**(5) 508–521. (IF 0.47)
- **32.** Sarker A, Rahman S, Khan SN, Naser MN and **Karim MM**. 2010. Optimization and partial characterization of a putative probiotic bacterium antagonistic to vibrios in shrimp larval rearing system. *Dhaka University J. Pharmaceutical Sciences.* **9**(1) 23-29. (IF 0.23)
- **33.** Fahmi T, **Karim MM**, Rahman S, Naser MN and Khan SN. 2010. Abundance and community structure of bacteria associated with *Artemia* cysts of commercial brands commonly used in hatchery operations of Bangladesh. *Bangladesh Journal of Zoology.* **38** (1) 41-49.
- **34.** Rahman S, Khan SN, Naser MN and **Karim MM**. 2010. Isolation of *Vibrio* spp from penaeid shrimp hatchery and coastal waters of Cox's Bazar, Bangladesh. *Asian Journal of Experimental Biological Sciences*. **1**(2) 288-293.
- **35.** Rahman S, Khan SN, Naser MN and **Karim MM**. 2009. Application of probiotic bacteria: a novel approach towards ensuring food safety in shrimp aquaculture. *Journal of Bangladesh Academy of Sciences*. **33**(1) 139-144.
- **36.** Alam MT, **Karim MM** and Khan SN. 2009. Antibacterial activity of different organic solvent extracts from *Achyranthes aspera* and *Cassia alata*. *Journal of Scientific Research*. **1** (2), 393-398.
- **37.** Hossain MA, Ahmad MI and **Karim MM**. 2008. Bird flu, the hanging pandemic threat for human-Its risk assessment and containment. *Bangladesh J. Microbiology* **25**(1)1-8.
- **38.** Karim MM, Svitkin Y, Kahvejian A, DeCrescenzo G, Costa-Mattioli M and Sonenberg N. 2006. A mechanism of translational repression by competition of Paip2 with eIF4G for poly(A) binding protein (PABP) binding. *Proceedings of the National Academy of Sciences. USA*, **103**(25): 9494-9499. (IF 9.58)
- **39.** Rahman M and **Karim MM** 2006. Heterologous expression of a human cap-binding protein in *E. coli. Dhaka University J. Pharmaceutical Sciences.* **5**(1-2) 59-62. (IF 0.23)

# 1997 - 2005

- **40. Karim MM** and McCarthy JEG. 2005. Repression of cap-dependent translation by 4E-binding proteins in rabbit reticulocyte lysates. *Bangladesh J. Microbiology* **22**(1)10-14.
- **41. Karim MM** and McCarthy JEG. 2004. Cloning and Expression of a Recombinant Eukaryotic Initiation Factor 4E-Binding protein 1 (4E-BP1). *Bangladesh J. Microbiology* **21**(2)72-76.
- **42. Karim MM** and McCarthy JE. 2003. Translation repressor 4E-BP1 traps human eIF4E in a high capaffinity state. *Dhaka University J. Biological Sciences.* **12** (1) 29-35.
- **43.** von der Haar T, Hughes JM, **Karim MM**, Ptushkina M and McCarthy JE. 2002. Translation initiation and surface plasmon resonance: new technology applied to old questions. *Biochemical Society Transactions UK*. **30**(2):155-62. (IF 5.160)
- **44. Karim MM**, Hughes JMX, Warwicker J, Scheper GC, Proud CG and McCarthy JEG. 2001. A quantitative molecular model for modulation of mammalian translation by the eIF4E-binding protein 1. *Journal of Biological Chemistry.* **276** (23) 20750-20757. (IF 4.106)
- **45. Karim MM**, Hughes JMX and McCarthy JEG. 2001. High level expression in *Escherichia coli* and purification of a functional human cap-binding protein elF4E *Bangladesh J. Microbiol* **18** (1) 81-88.
- **46.** Ptushkina M, von der Haar, T, **Karim MM**, Hughes JMX and McCarthy JEG. 1999. Repressor binding to a dorsal regulatory site traps human eIF4E in a high cap-affinity state. *EMBO Journal* **18** (14) 4068-4075. (**IF** 10.557)

- **47.** Hughes JMX, Ptushkina M, **Karim MM**, Koloteva N, von der Haar T and McCarthy JEG. 1999. Translational repression by human 4E-BP1 in yeast specifically requires human eIF4E as target. *Journal of Biological Chemistry* **274** (8) 3261-3264. (IF **4.106**)
- **48.** Qadri F, Ahmed F, **Karim MM**, Wenneras C, Begum YA, Salam MA, Albert MJ and McGhee JR. 1999. Lipopolysaccharide and cholera toxin-specific subclass distribution of B-cell response in cholera. *Clinical and Diagnostic Laboratory Immunology*. **6** (6) 812-818. (IF **2.598**)
- **49.** Sarker J, Bhuiyan S, **Karim MM**, Ahsan CR and Choudhury N. 1996. Effect of different stress factors on induction of thermotolerance in *Shigella dysenteriae*. *Bangladesh J. Microbiol* **13** (1 & 2) 97-100.
- **50.** Rus'D AA, Hossain S, Begum S, **Karim MM**, Ahsan CA & Hossain A. 1995. Susceptibility and resistivity of *Salmonella paratyphi* A and B to human serum. *Bangladesh J. Microbiol* **12** (1 & 2) 73-80.

Keys: Publications in international and IF journals are shown in blue.

# **Books/ Proceedings chapter**

*In press*: Karim MM, Rahman MT and Rahim S. Leishmaniasis in Bangladesh: en route to its elimination. *In*: Dhaka University Centenary publication (Imtiaz Ahmed *et al* eds). Published by *Pathok Shomabesh* 

Accepted: Hossain A, Karim MM, Jhuma TA. Microplastic Exposure and Gut Microbiome. In: Gut Microbiome, Immunity and Digestive Health: Epidemiology, Pathophysiology, Prevention and Treatment. Edited by Debasis Bagchi and Bernard W. Downs. Published by Academic Press, *Elsevier* Inc. Jun 2022.

**Accepted: Karim MM,** Hossain A, and Sultana S. Human gut virome and COVID-19: Modulating the extent of infection. In: Viral, Parasitic, Bacterial, and Fungal Infections: Anti-Microbial, Host Defense, and Therapeutic Strategies. Edited by Debasis Bagchi, Amitava Das and Bernard W. Downs, Published by *Elsevier Inc.* by mid-2022.

- **1. MM Karim. 2021.** Potential for Harnessing Plant Growth Promoting Rhizobacteria for a Climate-Smart Sustainable Agriculture. Published by Asiatic Society of Bangladesh
- **2.** Rahim S and **Karim MM**. **2021**. The Microbiologists in the Pharmaceutical Industries: Roles and Opportunities. *In*: Proceedings of the AGM 2021, BSPP Engagement for a better tomorrow. pp 23-25. Published by Bangladesh Society of Pharmaceutical Professionals.
- **3. Karim MM** and Sultana S. **2021**. Harnessing Plant Growth Promoting Rhizobacteria for a Climate-smart Sustainable Agriculture. *In*: Centenary Special Publication- Microbiology. (MM Rahman *et al* eds), pp 72-74. Published by the Department of Microbiology, University of Dhaka, Bangladesh.
- **4.** Hossain A, **Karim MM**, Jhuma TA and Menezes GA. 2020. Gut Microbiome and Heavy Metals. *In*: Metal Toxicology Handbook, (D Bagchi and M Bagchi eds.) pp 81-98, published by CRC press, Taylor and Francis group, USA. **ISBN:** 978-1-138-34524-9 (hbk), 978-0-429-43800-4 (ebk)
- **5.** Hossain FE, Ramim AM, Sabikunnahar, Rahman S, Naser MN and **Karim MM**. 2015. Probiotic Technology for Sustainable Disease Management of Prawn Aquaculture in Bangladesh. *In:* KMS Aziz (eds.) Proceedings of International Conference on Biotechnology, pp 1-19, published by Committee of Action for Research, Extension and Service (CARES)
- **6. Karim MM**, Faruk AMO and Naser MN. 2014. Harmful effect of uncontrolled use of antibiotics in shrimp industry. *In*: Proceedings of National Fish Week 2014, published by Department of Fisheries, Ministry of Fisheries and Livestock, Government of the People's Republic of Bangladesh, pp. 70-72
- 7. Rahman S, Khan SN, Naser MN and **Karim MM**. 2014. Probiotic technology for sustainable aquaculture. *In:* Wahab MA, Shah MS, Hossain MAR and Barman BK and Hoq ME (eds.) Advances in Fisheries Research in Bangladesh: *In:* Proceedings of 5<sup>th</sup> Biennial Fisheries Conference and Research Fair 2012, pp 83-96. ISBN: 978-984-33-6729-7. Published by Bangladesh Fisheries Research Forum
- **8.** Sabikunnahar, Hossain FE, Ramim AM, Naser MN and **Karim MM**. 2013. Evaluation of probiotic properties of isolated *Lactobacillus* spp. in inhibiting growth of pathogenic bacteria for shrimp

- aquaculture in Bangladesh. *In*: Proceedings of the 10<sup>th</sup> Annual Scientific Conference. **ISBN: 978-984-33-1990-6.** Published by Chittagong Veterinary and Animal Sciences University (CVASU). pp 43-50.
- **9.** Ramim AM, Rahman S, Ahsan DA, Naser MN and **Karim MM**. 2013. Addressing mortality of post-larvae in Golda hatcheries of Sathkhira and Khulna region of Bangladesh. *In*: Proceedings of the 9<sup>th</sup> Annual Scientific Conference, **ISBN**: **978-984-33-1990-6**, Published by Chittagong Veterinary and Animal Sciences University. pp 137-45
- **10.** Ramim AM, Rahman S, Naser MN and **Karim MM**. 2012. The application of probiotic technology to prevent prawn (*Macrobrachium rosenbergii*) mortality in the south-west coastal region of Bangladesh. *In*: Proceedings of the 1<sup>st</sup> International Exhibition on Dairy, Aqua and Pet animals. Published by Animal Health Companies Association of Bangladesh. pp 204-10.
- 11. Rahman S, Khan SN, Naser MN and Karim MM. 2012. Cytotoxic and antibacterial activities of isolated probiotic bacteria from Bangladesh for controlling bacterial infection in shrimp aquaculture. *In: Food, Health and Environment*. QA Fattah, SMH Kabir and N Choudhury (eds.), ISBN: 987-984-33-4982-9, Published by Bangladesh Academy of Sciences, Bangladesh. pp 161-170.
- **12.** Sarker A, Khan SN, Naser MN and **Karim MM**. 2008. Isolation of probiotic bacteria from natural sources to control diseases in shrimp aquaculture. *In: Food Safety and Hygiene*. N Choudhury, CR Ahsan and MM Karim (eds.), **ISBN: 984-300-001933-4**, Published by Bangladesh Academy of Sciences, Bangladesh. pp 129-135.

#### **Editorial activities**

- **1.** Member, Editorial Board; *Bangladesh Journal of Microbiology*, 2014-2015, 2018-19, 2020-21, and 2022-23. published by Bangladesh Society of Microbiologists. <a href="www.bsm.bd.org">www.bsm.bd.org</a>
- 2. Associate Editor; Annals of Dentistry University Malaya, joined in Oct 1, 2018. http://adum.um.edu.my
- **3.** Review Editor; *Frontiers in Public Health, section Environmental health and Exposome*. joined in Mar 3, 2014, (Impact Factor: 3.709) <a href="https://loop.frontiersin.org/people/140972/editorial">https://loop.frontiersin.org/people/140972/editorial</a>
- **4.** Consulting Member, Editorial Board; Asian Journal of Medical and Biological Research, Published from Bangladesh. ISSN 2412-5571 (online), <a href="http://www.ebupress.com/journal/ajmbr">http://www.ebupress.com/journal/ajmbr</a>
- **5.** Member, Editorial Board, Dhaka University Microbiologists Alumni Association (DUMAA) Science News Letter
- **6.** Publication Secretary for the Book of Programs and Abstracts, 5<sup>th</sup> International Conference on Microbiology of Food, Health and Environment, organized by Bangladesh-Japan Association for Science and Technology (BJAST) in Dec 26-28, 2010
- **7. "Food Safety & Hygiene"** Edited by N. Choudhury, Chowdhury R. Ahsan and **MM Karim**, published by Bangladesh Academy of Sciences, Agargaon, Dhaka, Bangladesh. 2008. ISBN 984-300-001933-4
- **8.** Book of Abstracts, 3<sup>rd</sup> Bangladesh-Japan Joint International Conference on *Microbiology, Food Safety and Food Hygiene*, Senate Bhaban, University of Dhaka, Dhaka, 24-25 March 2008
- **9.** Book of Abstracts, 25<sup>th</sup> BSM Annual Conference, Bangladesh Society of Microbiologists on "Emerging Diseases and Health", Dept of Microbiology, DU, Dhaka, 21 Dec 2009
- **10.** Book of Abstracts, 24<sup>th</sup> Annual Conference of Bangladesh Society of Microbiologists on *Microbes in the Food and Environment*, IFST auditorium, BCSIR (Science Laboratory), Dhaka, 28 June 2008
- **11.** Passion for Science Passion for a Better World"- The Tianjin Statement of Global Young Scientists at the Annual Meeting of New Champions of the World Economic Forum 2008

# Abstracts / Oral / Poster Presentations in Conferences

1. **Karim MM**, **invited lecture** "Creating fields for microbiologists in Bangladesh", an oral presentation in ISBM Executive Committee (2022-23) Inaugural meeting, 29 Jan 2022 on virtual platform.

- 2. Bukharid MZ, Prova MI, Jhuma TA, Mamun AA, and **Karim MM**. Exopolysaccharide production from endophytic *Stenotrophomonas pavanii* BRF2 and *Bacillus aryabhattai* DRF1 using statistical experimental design. 35<sup>th</sup> BSM Annual Conference, NNAC Senate Bhaban, University of Dhaka, Dhaka, 11 Dec 2021
- 3. Rahim S, Amin R, Sharif M, Rahaman MT, and **Karim MM**. Real Time PCR-based diagnosis of human visceral leishmaniasis using noninvasive samples. 35<sup>th</sup> BSM Annual Conference, University of Dhaka, 11 Dec 2021
- 4. Tuli SR and **MM Karim**. 'Characterization of ACC deaminase producing salt-tolerant PGP Rhizobacteria isolated from rice endophytes". 35<sup>th</sup> BSM Annual Conference, University of Dhaka, Dhaka, 11 Dec 2021
- 5. Sultana R, Bhuiyan TR, Mannoor K, **Karim MM**, Zaman K, Qadri F. Validation of a modified Enzyme Linked Immunosorbent Assay method for detecting IgG antibodies against hepatitis E virus using Dried Blood Spot samples in endemic settings. <u>35<sup>th</sup> BSM Annual Conference</u>, University of Dhaka, 11 Dec 2021
- 6. **MM Karim**, **invited lecture** "Potential for Harnessing Plant Growth Promoting Rhizobacteria for a Climate-smart Sustainable Agriculture" for FINAS Foundation, Asiatic Society of Bangladesh, 2 Dec 2021 on Zoom.
- 7. **MM Karim**, **invited lecture** on "Salt-tolerant plant-growth-promoting rhizobacteria isolated from rice endophytes for climate-smart agriculture in the coastal areas", AFB Session, 2021 AFOB Virtual Conference, Nov 1-4, 2021
- 8. Sultana S and **MM Karim**. **Keynote lecture** on "Harnessing plant growth-promoting rhizobacteria (PGPR) as a climate-smart solution for coastal agriculture under changing climate conditions". International Conference on Science and Technology Bangladesh (ICSTB), organized by BCSIR, 11-13 Mar 2021
- MM Karim, Invited lecture on "The novel PCR primers to diagnose Visceral Leishmaniasis using peripheral blood, spleen or bone marrow aspirates". Webinar II on <u>Centennial Celebration of University of Dhaka</u>, Feb 25-27, 2021
- KMM Alam and MM Karim. Alam's talk on "Isolation and molecular characterization of virulent Aeromonas hydrophila (vAh) from Ompok pabda (Hamilton, 1822) fishes infected with Motile Aeromonas Septicemia".
   BEST Oral presentation award at 34<sup>th</sup> BSM Annual Conference 2020 (Virtual e-conference) at Zoom platform on "Microbiology for Health and wellbeing; Today and tomorrow, 19-20 Dec 2020
- 11. Tuli ST, Khan SN and **MM Karim**. Tuli poster on 'Characterization of ACC deaminase Producing Salt-Tolerant, Plant Growth-Promoting Rhizobacteria (PGPR) Isolated from Rice Endophytes". 34<sup>th</sup> BSM Annual Conference
- 12. Rahim S, Amin R, Sharif M, Rahman MT and **Karim MM**. Samiur Poster on "PCR-based Diagnosis of Human Visceral Leishmaniasis Using Urine Samples". 34<sup>th</sup> BSM Annual Conference 2020
- 13. DJM Joy and **MM Karim**. Identification of a novel bacterial agent, *Citrobacter* spp causing Early Mortality Syndrome in black tiger shrimp. <u>International Poster Presentation Competition (IPPC) 2020</u>, organized by National Young Academy of Bangladesh (NYAB) in association with SLAYS, INYAS and TYSA. Sep-Oct 2020
- 14. P Nawer, S Basak, S Sultana, MM Hoq, MN Naser, **MM Karim**, SN Khan. Bacterial association with Artemia cysts used in aquaculture industries of Bangladesh and use of probiotics **as** biocontrol agent. <u>International Poster Presentation Competition (IPPC) 2020</u>, organized by NYAB. Sep-Oct 2020.
- 15. MT Rahman, JM Regenstein, NLA Kassim and **MM Karim**. Pathology in Academic Authorship: To be or not to be Treated? World Forum Principles of Scientific Publication, Montreal, Canada—Jun 10-12, 2020
- 16. **MM Karim**. **Invited lecture** on "Adaptation strategy for bringing salinity-prone coastal agriculture into cultivation using salt-tolerant plant-growth promoting rhizobacteria". <u>The Gobeshona 6 Conference for Climate Knowledge</u>. Independent University, Bangladesh (IUB), Dhaka. 21-23 Jan 2020
- 17. DJM Joy, MM Hasan, AM Ramim, SN Khan, MZ Akhter, MM Hoq and **MM Karim**. Identification of a novel bacterial agent causing Early Mortality Syndrome (EMS) in black tiger shrimp of Bangladesh. 4<sup>th</sup> IPFS-GNOBB International Conference 2019, University of Dhaka, Dhaka, Nov 11-13, 2019. **BEST Poster** award.
- 18. S Roy, A Saha, SI Khan, MM Hasan, **MM Karim**, MM Hoq and SN Khan. Multiplex PCR for differentiation of closely related strains of *Bacillus cereus* group. 33<sup>rd</sup> BSM Annual Conference 2019, University of Dhaka, Dhaka.
- 19. MM Hasan, SN Khan, **MM Karim** et al. Complete genome and plasmid sequence of a novel *Bacillus* thuringiensis strain BD59S, a HeLa cell killing parasporal crystalline inclusion protein synthesizing bacterium. 33<sup>rd</sup> BSM Annual Conference 2019, University of Dhaka, Dhaka.
- 20. S Basak, S Sultana, MM Hoq, **MM Karim,** MN Naser and SN Khan. Bacterial association with Artemia cysts used in aquaculture industries of Bangladesh and use of probiotics as biocontrol agent. <u>33<sup>rd</sup> BSM Conference 2019.</u>
- 21. F Nusrat, MM Hasan, A Al-Mamun, MM Hoq, **MM Karim** and SN Khan. Purification and partial characterization of extracellular α-amylase from *Bacillus subtilis* MZK05. 4<sup>th</sup> IPFS-GNOBB International Conference 2019, DU.

- 22. M Nahar, **MM Karim**, MM Hoq and SN Khan. Cloning, Expression and Application of Recombinant keratinase from *Bacillus licheniformis* MZK05. 4<sup>th</sup> IPFS-GNOBB International Conference 2019, DU, **BEST Poster** award.
- 23. S Rahim, MT Rahman and MM Karim, Molecular diagnosis of visceral leishmaniasis from urine specimens. 4th IPFS-GNOBB International Conference 2019, University of Dhaka
- 24. R Sultana, T Islam, SK Sarker, **MM Karim**, F Qadri and K Mannoor. Lower HEV-IgG antibody response attributed to the severity of morbidity in pregnancy with hepatitis in late acute stage. 4<sup>th</sup> IPFS-GNOBB International Conference 2019, DU
- 25. TA Jhuma, J Rafeya, SN Khan, MZ Akhter, MM Hoq and **MM Karim**. Potential for plant growth promotion under salinity-stress by biofilm forming halotolerant rhizobacteria isolated from rice endophytes. <u>4th IPFS-GNOBB International Conference 2019</u>, University of Dhaka, Dhaka, Nov 11-13, 2019.
- 26. **MM Karim**. **Public Lecture** on "Application of salt-tolerant plant growth-promoting rhizobacteria for coastal agriculture: A climate change preparedness strategy". <u>CARES Science Talk in EMK Centre</u>, Sep 23, 2019
- 27. **MM Karim**. **Oral presentation** on "Adaptation strategy for bringing salinity-prone coastal agriculture into cultivation using salt-tolerant plant-growth promoting rhizobacteria". <u>14<sup>th</sup> Asian Congress on Biotechnology 2017 "Biotechnology for 20/20 and beyond"</u>. Fullon Hotel, Tamsui Fishermen's Wharf, Taiwan, Jul 1-4, 2019
- 28. SN Khan, S Sultana, S Basak, MM Hoq, **MM Karim** and MN Naser. "Localization, abundance and community structure of bacteria associated with artemia cysts: Challenges and possible remedy". 14th ACB 2019
- 29. MM Hoq, MM Hasan, AA Mamun, **MM Karim**, SN Khan. "Assessment oof *Bacillus subtilis* MZK05 and its Mutant Strain, BsM9 Based on Genome Sequencing and production of Technical Enzymes". 14<sup>th</sup> ACB 2019
- 30. **MM Karim**. Road to the National Young Academy of Bangladesh: Perspective, Prospects and Potential. Published in the Book of abstracts of AGM 2019, National Young Academy of Bangladesh, 16 Jun 2019
- 31. S Sultana, A Rahman, SC Paul, AM Ramim and **MM Karim**. Science for Society: our approaches for a sustainable development using microbial technology in agriculture and aquaculture. AGM 2019 of National Young Academy of Bangladesh, CARS, University of Dhaka, 16 Jun 2019
- 32. Rosy Sultana, GS Bhuiyan, MN Begum, MT Islam, SK Sarker, MAH Chowdhury, M Rashid, **MM Karim**, SS Qadri, F Qadri, MK Mannoor. Nonsynonymous I553T mutation in HEV ORF2 is likely prone to facilitate viral escape in non-pregnant Bangladeshi women. The BSBMB Conference on "Life sciences for achieving SDG". Department of Biochemistry and Molecular Biology, University of Chittagong, Chittagong 4331, 27-28 April 2019
- 33. DJM Joy and **MM Karim**. Detection and Isolation of Agents Causing Early Mortality Syndrome in Shrimps from a Recent Outbreak in Bangladesh. <u>32<sup>nd</sup> BSM Annual Conference 2019 on "Trends in Microbiology for Sustainable Agro-ecological Development"</u>. <u>Jashore University of Science and Technology</u>, <u>6 April 2019</u>.
- 34. Sushmita Roy, A Saha, SI Khan, MM Hasan, **MM Karim**, MM Hoq and SN Khan. Multiplex PCR for Differentiation of Closely Related Strains of *Bacillus cereus* Group. 32<sup>nd</sup> BSM Annual Conference 2019.
- 35. MM Hasan, SN Khan, **MM Karim** et al. Complete genome and plasmid sequence of a novel *Bacillus* thuringiensis strain BD59S, a HeLa cell killing parasporal crystalline inclusion protein synthesizing bacterium. 32<sup>nd</sup> BSM Annual Conference 2019
- 36. S Basak, S Sultana, MM Hoq, **MM Karim**, MN Naser and SN Khan. Bacterial Association with Artemia Cysts used in Aquaculture Industries of Bangladesh and use of Probiotics as Biocontrol Agent. 32<sup>nd</sup> BSM Conference
- 37. **MM Karim**. **Invited lecture** on "Salinity intrusion and coastal agriculture: Adaptation strategies using salt-tolerant plant-growth promoting rhizobacteria for sustainable food security". <u>The Gobeshona 5 Conference for Climate Knowledge</u>. Independent University, Bangladesh (IUB), Dhaka. 8-11 Jan 2019
- 38. Hasan MM, Khan SN, Begum A, **Karim MM** and Hoq MM. Identification of Mosquitocidal Toxin Encoded Gene from Plasmid Sequence of indigenous *Bacillus thuringiensis* strain. Abstract number 100, 21<sup>st</sup> National Conference and AGM of Zoological Society of Bangladesh (ZSB), Shishu Academy, Bangladesh. 7-8 Dec 2018
- 39. MSR Khan, Michael Lauzardo, MB de Rochars, C Nakajima, MM Karim, John G Morris, Jr, A Tuanyok. Abstract no. 2006: Genotyping and drug resistant prevalence of *Mycobacterium tuberculosis* in southern peninsula of Haiti. 6<sup>th</sup> Annual meeting of American Society of Tropical Medicine and Hygiene, Sheraton New Orleans and New Orleans Marriott, New Orleans, LA USA, Oct 28 -Nov 1, 2018
- 40. S Sultana, SC Paul, MM Karim. Invited speaker on "Salinity intrusion and coastal agriculture: Adaptation strategies using salt-tolerant plant-growth-promoting rhizobacteria for sustainable food security". International Workshop on "Climate change adaptation and mitigation: sustainable agriculture and health security" jointly organized by the Association of Academies and Societies of Sciences in Asia (AASSA) and the

- Institute for Complex Analysis of Regional Problems, Far Eastern Branch of the Russian Academy of Sciences (ICARP FEB RAS). Oct 1-5, 2018 in Birobidzhan, Russian Federation.
- 41. S Sultana, SC Paul, **MM Karim**. Poster presentation on "Salinity intrusion and coastal agriculture: adaptation strategies using salt-tolerant plant-growth promoting rhizobacteria for sustainable food security". Sixth Annual "South Asia Biosafety Conference". 15-17 Sep, 2018 at The Westin, Dhaka, Bangladesh
- 42. Sadia Sultana, S Basak, MM Hoq, **MM Karim**, MN Naser and SN Khan. "Bacterial association with *Artemia* cysts: Concern for aquaculture industries of Bangladesh and use of probiotics as biocontrol agent". Poster presentation (P-84) in 4<sup>th</sup> Asian Food Safety and Security Association (AFSA) Int'l Conference, Aug 10-12, 2018, Angkor Paradise hotel, Seam Reap, Cambodia.
- 43. **MM Karim. Invited speaker** on "Co-culture-inducible probiotic activity of some lactic acid bacteria against pathogenic bacteria causing prawn mortality". <u>Int'l Scientific Conference (ISCON) XV at CVASU, Chittagong</u> on 12-13 May 2018.
- 44. S Sultana, SC Paul, S Parveen, SN Khan, MM Hoq, S Hoq and **MM Karim**. "Challenges and innovations for sustainable agriculture in coastal areas of Bangladesh by application of plant-growth promoting rhizobacteria" Abstract Book of Nat'l Conference of Plant Tissue Culture and Biotechnology, Ishwardi, Pabna, April 2018.
- 45. Shahnaz Sultana, SC Paul, S Parveen, SN Khan, MM Hoq, S Hoq and **MM Karim**, Abstract Book of 31<sup>st</sup> Bangladesh Society of Microbiologists (BSM) Annual Conference, 9 Mar 2018, Department of Microbiology, University of Dhaka
- 46. Akhinur Rahman, FE Hossain, Shakiluzzaman and MM Karim, Abstract Book of 31<sup>st</sup> <u>Bangladesh Society of Microbiologists (BSM) Annual Conference</u>, 9 Mar 2018, Department of Microbiology, University of Dhaka
- 47. Akhinur Rahman, Farzana E Hossain, Shakiluzzaman and MM Karim, Poster presentation by Akhinur on "Characterization of co-culture inducible probiotic activity of lactic acid bacteria against shrimp pathogens".

  BEST Poster award in 10<sup>th</sup> AFOB Regional Symposium, 27-29 Jan, 2018, Senate Bhaban, University of Dhaka
- 48. Shahnaz Sultana, SC Paul, S Parveen, SN Khan, MM Hoq, S Hoq and **MM Karim**, Poster presentation by Sultana on "A Novel *Bacillus aryabhattai MS3* promotes growth in rice under salinity stress" Abstract ID 84, Abstract Book of 10<sup>th</sup> AFOB Regional Symposium, 27-29 January, 2018, Senate Bhaban, University of Dhaka
- 49. **MM Karim**. **Invited lecture** on "A Novel *Bacillus aryabhattai MS3* promotes growth in rice under salinity stress". <u>The Gobeshona 4 Conference for Research on Climate Change in Bangladesh</u>. Independent University, Bangladesh (IUB), Dhaka. 8-11 Jan 2018.
- 50. Shahnaz Sultana, SC Paul, S Parveen, SN Khan, MM Hoq, S Hoq and **MM Karim**, Lightning Oral presentation by Sultana on "A Novel *Bacillus aryabhattai MS3* promotes growth in rice under salinity stress" Abstract ID 25, Abstract Book of 3<sup>rd</sup> GNOBB International Conference 2017, University of Dhaka, Dhaka, Dec 29-30, 2017.
- 51. Sadia Sultana, MM Hoq, MM Karim, MN Naser and SN Khan. "Community structure and quality assessment of Artemia cysts used as shrimp feed in aquaculture industries of Bangladesh". **BEST Poster** award, 3rd GNOBB International Conference 2017, University of Dhaka, Dhaka, Dec 29-30, 2017
- 52. FE Hossain, A. Rahman and **MM Karim**. "Co-culture inducible probiotic activity of isolated lactic acid bacteria against prawn pathogens". Abstract ID 42, Abstract Book of <u>3<sup>rd</sup> GNOBB International Conference 2017</u>
- 53. Rosy Sultana, T Islam, SK Sarker, **MM Karim**, F Qadri and K Mannoor "Association of HEV 531Gln variants in ORF2 with selective hepatocyte damage", Abstract ID 53, 3<sup>rd</sup> GNOBB International Conference 2017
- 54. NN Fariha, A Rahman, FE Hossain and **MM Karim**. Oral presentation by Fariha on "Co-culture inducible probiotic activity of isolated lactic acid bacteria against prawn pathogens". Zoological Society of Bangladesh (ZSB) Conference, Shishu Academy, Bangladesh. 7-8 Dec 2017
- 55. **MM Karim**. **Invited speaker** on "Adaptation of rice cultivation in the coastal areas of Bangladesh under changing climate conditions by application of salt-tolerant biofertilizer". <u>13<sup>th</sup> Asian Congress on Biotechnology 2017 "Bioinnovation and Bioeconomy"</u>. Khon Kaen Raja Orchid Hotel, Khon Kaen, Thailand, Jul 23-27, 2017
- 56. SC Paul, S Parveen, S Hoq and **MM Karim**. Poster presentation by SC Paul on "Application of salt tolerant plant growth promoting rhizobacteria as bio-inoculant in cultivation of *Oryza sativa* for coastal agriculture of Bangladesh". **BEST poster** awarded in 30<sup>th</sup> <u>BSM Annual Conference</u>, Senate Bhaban, DU, Apr 29, 2017
- 57. S Sultana, SC Paul and **MM Karim**. Poster presentation by Sultana on "Siderophore production by salt-tolerant plant growth promoting rhizobacteria for coastal agriculture of Bangladesh" 30<sup>th</sup> <u>BSM Annual Conference 2017</u>
- 58. A Rahman, FE Hossain, MS Zaman and **MM Karim**. Poster presentation by A Rahman on "Co-culture-inducible probiotic activity of *Lactobacillus* isolates against prawn pathogens" in 30<sup>th</sup> <u>BSM Annual Conference, 2017</u>

- 59. Mukitu Nahar, SN Khan, **MM Karim**, MM Hoq. Poster presentation by M Nahar on "Gene cloning and expression of a recombinant protein, keratinase for industrial applications" 30<sup>th</sup> <u>BSM Annual Conference</u>, 2017
- 60. A Rahman, FE Hossain, MS Zaman and **MM Karim**. oral presentation by A Rahman on "Co-culture-inducible probiotic activity of Lactobacillus isolates against prawn pathogens" in <u>National Conference of Zoological Society of Bangladesh</u> (ZSB) at Senate Bhaban, University of Dhaka in Dec 31, 2016
- 61. A Rahman, FE Hossain, MS Zaman and **MM Karim**. oral presentation by A Rahman on "Co-culture-inducible probiotic activity of *Lactobacillus* isolates against prawn pathogens" in 1st Int'l Conference on "Safety and hygiene issues in fisheries post-harvest activities: emphasis on dried fisheries products", University of Rajshahi, Dec 28-29, 2016
- 62. **MM Karim**, **Invited speaker** on "Application of salt-tolerant, plant growth promoting rhizobacteria as biofertilizer in cultivation of *Oryza sativa* for coastal areas of Bangladesh under changing climate conditions". <u>1st UGAS</u>, <u>Iwate University International symposium</u>, <u>2016 on "Innovations in Plant and Food Sciences: from Genes to Production"</u>, <u>Iwate University</u>, Morioka, Japan, Dec 17-18, 2016
- 63. SC Paul, S Parveen, S Hoq and **MM Karim**. Poster presentation on "Adaptation for cultivation of *Oryza sativa* under changing climate conditions in the coastal areas of Bangladesh by application of salt-tolerant, plant growth promoting rhizobacteria" in BSBMB Nat'l Conference, Senate Bhaban, DU, Dec 10, 2016
- 64. AM Ramim, FE Hossain, MS Rahman, MN Naser & **MM Karim**. Poster presentation on "Identification of bacterial agents causing mortality in postlarvae of giant freshwater prawn (*Macrobrachium rosenbergii*) in south-west coastal districts of Bangladesh" in BSBMB National Conference 2016
- 65. **MM Karim**, Abstract (pp 64, Book of Abstracts), **Invited speaker** on "Co-culture inducible probiotic activity of *Lactobacillus* isolates against shrimp pathogens". 7<sup>th</sup> Fisheries Conference and Research Fair 2016, Organized by Bangladesh Fisheries Research Forum (BFRF). BARC auditorium, Dhaka, 29-30 Oct 2016
- 66. **MM Karim. Invited speaker** on "Characterization of salt-tolerant *Azotobacter* spp for its potential application as biofertilizer in coastal zone of Bangladesh under changing climate conditions". 2<sup>nd</sup> International South Asian Biotechnology Conference on "Biotechnology for Sustainable Development", Senate Bhaban, University of Dhaka, Dhaka, Bangladesh. 5-6 Feb 2016
- 67. **MM Karim. Invited speaker** on "Adaptation through application of potential *Azotobacter* spp as biofertilizer in coastal agriculture in Bangladesh under changing climate conditions". <u>The Gobeshona 2 Conference for</u> Research on Climate Change in Bangladesh. Independent university, Bangladesh (IUB), Dhaka. 8-11 Jan 2016
- 68. S Parveen, SC Paul, S Hoq and **MM Karim**. Poster presentation on "Characterization of salt-tolerant *Azotobacter* spp for its potential application as biofertilizer in coastal zone of Bangladesh under changing climate conditions". Abstract no. 125, Book of Abstracts of the <u>BSM International Conference 2015</u>, <u>Bangladesh Society of Microbiologists</u>, Dept of Microbiology, University of Dhaka, Dhaka, 26-28 Dec 2015.
- 69. FE Hossain, AM Ramim, MS Rahman, AMO Faruque, MN Naser, and **MM Karim**. Poster presentation on "Identification of Bacterial Agents Causing Mortality in Post-larvae of Giant Freshwater Prawn *Macrobrachium rosenbergii* in Southwest Coastal Districts of Bangladesh". Abstract no. 132, <u>BSM Int'l Conference 2015</u>
- 70. MA Mumu, MT Rahman, A Hossain and **MM Karim**. Poster presentation on "Is tuberculous prostatitis rare in prostate cancer patients in Bangladesh?" Abstract no. 127, <u>BSM Int'l Conference 2015</u>
- 71. SC Paul, MS Hoque, S Mahmud and **MM Karim**. "Improvement of *Tilapia niloticus* culture by suitable application of *Azotobacter* spp as a biofertilizer". Abstract no. 135, <u>BSM Int'l Conference 2015</u>
- 72. A Al-Harbi, A Alatig, AR Al-Ateeq, MM Karim and A Hossain. Poster presentation on "Growth in biofilm mode leads to enhanced potential to form new biofilm in clinical isolates of *Klebsiella pneumoniae*." Abstract no. 124, Book of Abstracts of the BSM International Conference 2015
- 73. **MM Karim. Invited speaker** on "Effect of salinity stress on *Azotobacter* spp for its use as biofertilizer in the coastal agriculture of Bangladesh: A paradigm for novel entrepreneurship". <u>3<sup>rd</sup> International Conference on Coastal Biotechnology (ICBC)</u>, Qingdao, China, Aug 19-21, 2015
- 74. Samia Parveen, S Hoq and **MM Karim**. Poster presentation on "Influence of climate change on nitrogen-fixing bacteria and its use as bio-fertilizer for crop production" at International Scientific Conference on <u>Our Common Future for Climate Change (CFCC)</u>, UNESCO Headquarters, Paris, France, 7-10 July 2015.
- 75. Farzana Hossain, AM Ramim and **MM Karim**. Poster presentation on "The Inductive mechanism for the growth inhibition of shrimp pathogens by some isolated probiotic *Lactobacillus* spp." ID 253, Abstract Book of 2<sup>nd</sup> GNOBB International Conference, University of Dhaka, Dhaka, Jan 9-10, 2015.

- 76. Mahbuba Khatun, SMS Alam, MA Hossain, JA Haq, MSA Jilani and **MM Karim**. Oral presentation by MK on "Development of an improved PCR-based detection system for Visceral Leishmaniasis in Bangladesh". ID 82, Abstract Book of 2<sup>nd</sup> GNOBB International Conference, 2015
- 77. Samia Parveen, B Jannat, N Rahman and **MM Karim**. Poster presentation on "Influence of climate change on nitrogen-fixing *Azotobacter* spp and its use as biomarker and biofertilizer for crop production". ID 62, Abstract Book of 2<sup>nd</sup> GNOBB International Conference, 2015
- 78. Mukitu Nahar, A Shishir, **MM Karim**, SN Khan, MS Haque, MM Hoq. Poster presentation on "Cloning, expression and structure simulation of keratinase from *Bacillus licheniformis* strain MZK05". Abstract Book of 2<sup>nd</sup> GNOBB International Conference, 2015
- 79. **MM Karim. Invited speaker** on "Probiotic technology for sustainable aquaculture in Bangladesh". <u>1</u><sup>st</sup> International Congress on Coastal Biology in YanTai, China, Sep 25-30, 2014
- 80. **MM Karim**. Oral presentation on "Effect of intruding saline water on the agriculturally important *Azotobacter* spp on the coastal areas of Bangladesh". <u>Biotechnology Research Centre</u>, <u>University of Dhaka</u>, Jun 18, 2014.
- 81. **MM Karim**. **Invited speaker** on "Food safety management" in the workshop "Training/ Orientation on Good Aquaculture Practices (GAqP) for University teachers, students and stakeholders". Organized by Bangladesh Aquaculture Alliance (BAA) in association with Patuakhali Science and Technology University (PSTU), PSTU Patuakhali, 15 Jun 2014
- 82. **MM Karim**. **Invited speaker** on "Definition of safe food & reasons for food safety hazards" in the workshop "Refresher training on Good Aquaculture Practices". Organized by Bangladesh Economic Growth Program Project, Ministry of Commerce, GoB, Prime Park Hotel, Cox's Bazar, 8-10 June, 2014
- 83. **MM Karim**. Oral presentation on "Probiotic technology for sustainable aquaculture in Bangladesh". <u>Global Young Academy General Assembly (GYA GA)</u> on "Natural resources on a finite world" Universidad de Chile, Santiago. May 21-25, 2014
- 84. Sabikunnahar, Ramim AM, Naser MN and **Karim MM**. Characterization of a probiotic bacterium *Lactobacillus* spp in controlling pathogenic bacteria in shrimp aquaculture of Bangladesh. Abstract no. 101, Abstract Book of 27<sup>th</sup> Annual Conference of Bangladesh Society of Microbiologists (BSM), Department of Microbiology, University of Dhaka, Dhaka, 27 Apr 2014.
- 85. Khatun M, Alam SMS, Hossain MA, Jilani MSA and **Karim MM**. Development of a PCR-based diagnostic system for Kala-azar. Abstract no. 102, Abstract Book of <u>27<sup>th</sup> Annual Conference of BSM</u>, 2014.
- 86. **MM Karim**, Abstract (pp 73), and Oral presentation on "Molecular characterization of pathogens associated with prawn mortality and its remediation by probiotic technology". 6<sup>th</sup> Fisheries Conference and Research Fair 2014, 26-27 April 2014, Organized by Bangladesh Fisheries Research Forum (BFRF). BARC auditorium, Dhaka.
- 87. **MM Karim**, Abstract on "Early mortality syndrome (EMS) in shrimp: Lessons learnt from the experience of global aquaculture alliance". 6<sup>th</sup> Fisheries Conference and Research Fair 2014, pp 71, 2014
- 88. ASM Meeting, Bangladesh chapter. 11<sup>th</sup> Apr 2014, ICDDR,B, Dhaka, Bangladesh
- 89. **MM Karim**. **Invited speaker** on "Presence of multi-drug resistant bacteria in the giant freshwater prawn, *Macrobrachium rosenbergii* larvae of Bangladesh". <u>11<sup>th</sup> Annual Scientific Conference (ASCON-XI)</u>, <u>2014 Chittagong Veterinary and Animal Sciences University (CVASU)</u>, Bangladesh on *Emerging challenges in Food, Health and Environment*. CVASU Conference Hall, Chittagong, Bangladesh, 6 March 2014.
- 90. <u>48<sup>th</sup> US-Japan Cooperative Medical Sciences Program</u> and <u>16<sup>th</sup> International Conference on Emerging Infectious Diseases in the Pacific Rim</u> 1. 9-13<sup>th</sup> Feb 2014, ICDDR,B, Dhaka, Bangladesh
- 91. **MM Karim**. Oral presentation on "Probiotic technology for sustainable development in shrimp aquaculture of Bangladesh". <u>BAS-TWAS-ROCASA Workshop</u> on *Initiative in Science Education, Research and Capacity building*, NMST auditorium, Agargaon, Dhaka. Sep 14-15, 2013.
- 92. **MM Karim**. **Invited speaker** on "Probiotic technology: A new solution for sustainable aquaculture in Bangladesh". *CARES Conference 2013, Hotel Westin, Dhaka, Bangladesh*. May 25-26, 2013.
- 93. **MM Karim**. Oral presentation on "Effect of intruding saline water on the agriculturally important Azotobacter spp on the coastal areas of Bangladesh". <u>Biotechnology Research Centre, University of Dhaka</u>, May 22, 2013.
- 94. **MM Karim**. Oral presentation on "Probiotic technology for sustainable aquaculture in Bangladesh". <u>Global Young Academy General Assembly (GYA GA)</u> on *Demography and Global research*. German Academy of Sciences Leopoldina, Halle (Salle), Germany. May 15-19, 2013.
- 95. *Delegate* from DU. 19<sup>th</sup> Conference of the Islamic World Academy of Sciences on *achieving socio-economic development in the Islamic world through science, technology and innovation*. Dhaka 5-9 May 2013.

- 96. Ramim AM, Rahman S, Naser MN and **MM Karim.** Abstract on "Isolation of indigenous probiotic bacteria for application in shrimp aquaculture in Bangladesh". The 10<sup>th</sup> Annual Scientific Conference (ASCON-X), 2013 Chittagong Veterinary and Animal Sciences University (CVASU), Bangladesh on Food Safety in Bangladesh: Issues and Challenges. The BGMEA Bhaban, Chittagong, Bangladesh, 6 April 2013
- 97. **MM Karim**. Oral presentation and end of project report on "Identification of Agents Causing Golda Mortality in South-West Coastal Districts of Bangladesh" at <u>Department of Fisheries (DoF)</u>, <u>Ministry of Fisheries and Livestock</u>, Government of People's Republic of Bangladesh, 13 March 2013
- 98. Ramim AM, Rahman S, Naser MN and **Karim MM**, **Invited speaker** on "The application of probiotic technology to prevent prawn (*Macrobrachium rosenbergii*) mortality in the south-west coastal region of Bangladesh", <u>1st International Exhibition on Dairy</u>, Aqua and Pet animals 2012, Nov 8-10, 2012. Bangabandhu International Convention Centre, Dhaka, Bangladesh
- 99. **MM Karim**. Oral presentation on "A sustainable strategy towards ensuring food safety". <u>Global Young Academy General Assembly (GYA GA)</u>, May 20-23, 2012. University of Pretoria, Johannesburg, South Africa
- 100.**MM Karim. Invited speaker** on "Isolation of indigenous probiotic bacteria for application in shrimp aquaculture in Bangladesh". The <u>9<sup>th</sup> Annual Scientific Conference (ASCON-IX), 2012 Chittagong Veterinary and Animal Sciences University (CVASU)</u>, Bangladesh on "Food Safety in Bangladesh: Issues and Challenges". The Hotel Agrabad, Chittagong, Bangladesh, 7-8 March 2012
- 101.MM Karim. Invited speaker on "Isolation of indigenous probiotic bacteria for application in shrimp aquaculture in Bangladesh". 3<sup>rd</sup> International Symposium of Bangladesh JSPS Alumni Association on "Science for Society". BARC Auditorium, Dhaka. February 24 & 25, 2012.
- 102.N Rahman, MN Naser, S Hoque, MA Hossain and **MM Karim**. Effect of intruding saline water on agriculturally-important *Azotobacter spp* in the coastal areas of Bangladesh. Abstract no. 77, Proceedings of the <u>26<sup>th</sup> Annual Conference of Bangladesh Society of Microbiologists (BSM)</u>, Department of Microbiology, Chittagong University, Chittagong, 21 Jan 2012.
- 103.Z Hasan, M Shoeb and **MM Karim**. Antimicrobial activity of two alkaloids collected from *Murraya koenigii*. Abstract no. 22, Proceedings of the 26<sup>th</sup> Annual Conference, BSM, 2012
- 104.**MM Karim**, Oral presentation on "Isolation of indigenous probiotic bacteria for application in shrimp aquaculture in Bangladesh". 5<sup>th</sup> Fisheries Conference and Research Fair 2012, 18-19 January 2012, Organized by Bangladesh Fisheries Research Forum (BFRF).
- 105.**MM Karim**. Oral presentation on "Ensuring Food Safety by Isolation and Suitable Application of Probiotic Bacteria in Shrimp Industries of Bangladesh". <u>Global Young Academy General Assembly (GYA GA)</u>, Mar 20-22, 2011. German Institute of Economics Research (DIW), Berlin, Germany
- 106.S Rahman, T Farzana, T Elahi, N Naser and **MM Karim**. Safety issues of some isolated putative probiotic bacteria for application in shrimp aquaculture to control shrimp diseases. 5<sup>th</sup> International Conference on Microbiology of Food, Health and Environment: Problems and prospects of developing countries, Dec 26-28, 2010. Department of Microbiology, University of Dhaka, Dhaka, Bangladesh
- 107.F Akter, MR Amin, KT Osman, MN Anwar, N Adnan, **MM Karim** and MA Hossain. Increasing frequency of ciprofloxacin-resistant *Escherichia coli* in hospital wastewater of Bangladesh and prediction of its mechanism of resistance. 5<sup>th</sup> International Conference on Microbiology of Food, Health and Environment: *Problems and prospects of developing countries*, Dec 26-28, 2010. Dept of Microbiology, University of Dhaka, Bangladesh
- 108.GN Sultana, **MM Karim**, MA Rahman, R Begum and RA Begum. Distribution and Frequency of Somatic Mitochondrial DNA (mtDNA) Mutations in Primary Breast Cancer of Bangladeshi Women. 5<sup>th</sup> International Conference on Microbiology of Food, Health and Environment, 2010
- 109.S Rahman, T Farzana, T Elahi, MN Naser and **MM Karim**. Ensuring Food Safety by Isolation and Suitable Application of Probiotic Bacteria in Shrimp Industries of Bangladesh. <u>8<sup>th</sup> Annual Scientific Conference (ASCon):</u> *Towards a One world, One Health Approach.* Sep 23-25, 2010, Chittagong Veterinary and Animal Sciences University (CVASU), Chittagong.
- 110.T Elahi, MN Naser, MRA Hossain, **MM Karim**. Isolation of Bacteria from morbid and dead Tilapia (*Oreochromis niloticus*) collected from cages of Daudkandi river, Chandpur, Bangladesh. 8<sup>th</sup> ASCon, 2010
- 111.S Rahman, MN Naser and **MM Karim**. Isolation of probiotic bacteria for ensuring food safety in shrimp industries of Bangladesh. Abstract and oral presentation in Young Scientists Congress, organized by Bangladesh Academy of Sciences, NMST Bhaban, Agargaon, Dhaka. 29-30 Dec 2009.

- 112.ASM Matiur Rahman, Zeenat Jahan and **MM Karim**. Swine Flu and its impact in Bangladesh. Proceedings of the 25<sup>th</sup> Annual Conference of Bangladesh Society of Microbiologists (BSM) on *Emerging Diseases and Health*, Department of Microbiology, University of Dhaka, Dhaka, 21 Dec 2009.
- 113.S Rahman, SN Khan, MN Naser and **MM Karim**. Safety Issues of Some Isolated Putative Probiotic on the proceedings of the <u>25<sup>th</sup> Annual Conference of BSM</u>, 2009
- 114.MA Shishir, S Hossain, SN Khan, MM Hoq and **MM Karim**. Cloning of *ker*A gene for the production of keratinase for application in leather industries. Abstract no. 27, 25<sup>th</sup> Annual Conference of BSM, 2009.
- 115.S Rahman, SN Khan, MN Naser and **MM Karim**. 2009. Application of Probiotic Bacteria: A Novel Approach towards Ensuring Food Safety in Shrimp Aquaculture. 7th Annual Scientific Conference on Food Security & Food Safety: Towards a One world, One Health Approach. March 17-19, 2009, Chittagong Veterinary and Animal Sciences University (CVASU), Chittagong.
- 116.S Rahman, SN Khan, MN Naser and **MM Karim**. 2009. Application of Probiotic Bacteria: A Novel Approach towards Ensuring Food Security in Shrimp and Shrimp Aquaculture. <u>International Conference on Quality Seed and Food Security</u>. February 17-19, 2009, Bangladesh Agricultural University, Mymensingh.
- 117.MG Mostafa and **MM Karim**. Antibacterial activity of aqueous and organic extracts of *Terminalia chebula*. Abstract (numbered 37) published in "4<sup>th</sup> International Botanical Conference", Department of Botany, University of Dhaka, Dhaka, 16-18 January, 2009.
- 118.**MM Karim**, MN Naser and S Hoque. Influence of saline water intrusion from the Bay of Bengal on the composition of microflora: A scenario of climate change. Poster presented in "<u>International Symposium on Climate Change and Food Security in South Asia</u>." Dhaka, Bangladesh, 25-30 August, 2008.
- 119.A Sarker, SN Khan, MN Naser and **MM Karim**. Indigenous probionts can control pathogenic *Vibrio* infection during shrimp larva development in hatcheries. Oral presentation and Abstract (no. 44) published on the proceedings of the "15<sup>th</sup> International Congress on Biotechnology in Animal Reproduction (ICBAR)." Bangladesh Agricultural University (BAU), Mymensingh. 6-7 August 2008.
- 120.Fahmi T, MN Naser, **MM Karim** and SN Khan. Bacteria in Dormant Embryonic Phase (cyst) of *Artemia*. Abstract no. 45, Proceedings of the 15<sup>th</sup> International Congress on Biotechnology, BAU 2008.
- 121.A Sarker, MN Naser and **MM Karim**. Isolation and evaluation of probiotics as a biocontrol agent against pathogenic vibrios in shrimp aquaculture. Abstract no. 2 published on the proceedings of the <u>24<sup>th</sup> Annual</u> Conference of BSM on *Microbes in the Food and Environment*, IFST auditorium, BCSIR, Dhaka, 28 June 2008.
- 122.MS Rahman, A Sarker, MN Naser and **MM Karim**. Isolation of pathogenic bacteria causing vibriosis from hatcheries of shrimp aquaculture. Abstract no. 37, 24<sup>th</sup> Annual Conference of BSM 2008
- 123.MT Alam, **MM Karim** and SN Khan. Antibacterial activity of different solvent extracts of *Achyranthes aspera* and *Cassia alata*. Abstract no. 49, <u>24<sup>th</sup> Annual Conference of BSM</u> 2008.
- 124.A Sarker, MN Naser and **MM Karim**. Discovery of probiotic bacteria from indigenous microorganisms to control diseases in shrimp aquaculture. <u>3<sup>rd</sup> Bangladesh-Japan Joint International Conference</u>, Mar 24-25, 2008, Senate Bhaban, University of Dhaka, Dhaka, Bangladesh.
- 125.I Ahmed and **MM Karim**. Analyses of host binding phenomenon of Avian Influenza virus based on Bioinformatics. 23<sup>rd</sup> Annual conference of BSM. June 22, 2007, Dept of Microbiology, University of Dhaka
- 126.I Ahmed and **MM Karim**. Alarm over Bird flu. An article published in the 22<sup>nd</sup> Annual conference of BSM 2006, Department of Microbiology, University of Dhaka, Dhaka.
- 127.**MM Karim** and John McCarthy. Translation Repression by Human 4E-BP1 in Yeast Specifically Requires Human eIF4E as Target. 21st Annual Conference of BSM 2005. BINA, Mymensingh, Bangladesh.
- 128.U Hany, KK Atahar, **MM Karim** and ZI Seraj. Sub-cloning in pGREEN vectors for efficient *Agrobacterium*-mediated plant transformation. 19<sup>th</sup> Annual conference of BSM 2002, Dept. of Microbiology, DU, Bangladesh.
- 129.**MM Karim,** J Hughes and J McCarthy. Differential effects of phosphorylatable sites in 4E-BP1 implicated in eukaryotic translation regulation. <u>18<sup>th</sup> Annual Conference</u>, <u>BSM</u>, <u>2001</u>, Atomic Energy Centre, Dhaka.
- 130.J Hughes, **MM Karim** and J McCarthy. Differential effects of phosphorylation-mimic mutations at sites in 4E-BP1 implicated in translation regulation. <u>Translation UK 2000.</u> University of Cambridge, Cambridge, UK.
- 131.**MM Karim**, J Hughes and J McCarthy. Poster presentation on "Enhanced affinity of human eIF4E for the mRNA 5' cap due to binding of 4E-binding proteins". <u>Translation UK 1999</u>. University of Dundee, Dundee, UK.
- 132.J Hughes, M Ptushkina, **MM Karim**, N Koloteva, T von der Haar & J McCarthy. Translation Repression by Human 4E-BP1 in Yeast Specifically Requires Human elF4E as Target. <u>British Yeast Group Meeting 1999</u>, Nottingham, UK.

- 133.T von der Haar, M Ptushkina, **MM Karim** and J McCarthy. <u>4<sup>th</sup> Annual RNA meeting 1999</u>. University of Edinburgh, Edinburgh, Scotland.
- 134.J Hughes, **MM Karim**, N Koloteva, T von der Haar and JEG McCarthy. Reproducing the translation-regulatory function of human 4E-Binding Proteins in yeast. <u>Translation UK 1998.</u> University of Leicester, Leicester, UK

#### Research Grant received as Principal Investigator

- **1.** Development of a PCR-based diagnostic system for human visceral leishmaniasis using urine samples. Funded by **University Grants Commission**, **Bangladesh** through DU, 2020-21 (Ongoing)
- Isolation of EPS-forming, salt-tolerant plant growth promoting rhizobacteria able to provide salt-tolerance in plants for application in coastal agriculture. Funded by Centre for Climate Change Study & Resource Utilization (CCCSRU), University of Dhaka, Dhaka, 2020-21. (Ongoing)
- **3.** Exopolysaccharide production from Stenotrophomonas pavanii BRF2 and Bacillus aryabhattai DRF1 using statistical experimental design. Funded by **Ministry of Science & Tech (MoST), GoB,** 2020-21
- **4.** Biosynthesis and production of microbial exopolysaccharide (EPS) suitable for biotechnological applications. Funded by UGC Bangladesh, 2018-19
- **5.** Adaptation strategy through application of plant growth promoting rhizobacteria having Siderophore producing ability for improved stress tolerance in rice cultivation in coastal areas of Bangladesh: a climate change preparedness strategy. Funded by **MoST, GoB,** 2018-19
- **6.** Addressing the recent shrimp mortality likely to be caused by Early Mortality Syndrome (EMS) in Bangladesh. Funded by **UGC Bangladesh** through DU for 2017-2018
- 7. Adaptation strategy through application of potential plant growth promoting rhizobacteria as biofertilizer in the coastal agriculture of Bangladesh under changing climate condition, Funded by Ministry of Education (MoE), Govt. of the People's Republic of Bangladesh (GoB), 2016-19
- 8. Characterization of salt-tolerant plant growth promoting rhizobacteria for its potential application as biofertilizer in coastal areas of Bangladesh under changing climate conditions, Funded by MoST, GoB, 2016-17
- 9. Siderophore production- Funded by Centre for Advanced Studies & Research in Biological Sciences, DU. 2016-17
- **10.** *Mycobacterium tuberculosis* infection in prostate cancer patients in Bangladesh: A prospective study; Funded by **UGC Bangladesh** through DU, **2016**
- **11.** Improvement of Tilapia niloticus culture by suitable application of Azotobacter spp as a biofertilizer. Funded by **UGC Bangladesh**, **2015-16**
- **12.** Effect of intruding saline water on isolated agriculturally-important Azotobacter spp in the coastal agriculture of Bangladesh. Funded by **Biotechnology Research Centre, University of Dhaka, 2012-13**
- **13.** Climate change: it's impact on agriculturally-important Azotobacter spp in the coastal areas of Bangladesh-Funded by **UGC Bangladesh** through DU, **2012**
- **14.** Development of a PCR-based non-invasive diagnostic system for Leishmania donovani from peripheral blood Funded by Bangladesh Medical and Research Council (BMRC), 2012-13
- **15.** Increased Salinity: Its effect on agriculturally-important bacteria, Azotobacter spp in the coastal agriculture of Bangladesh Funded by **Ministry of Science and Technology (MoST), GoB, 2012-13**
- **16.** Effect of intruding saline water on agriculturally-important Azotobacter spp in the coastal areas of Bangladesh. Funded by **Biotechnology Research Centre**, **University of Dhaka for 2011-12**
- **17.** Ensuring food safety by isolation and suitable application of Probiotic Bacteria in Shrimp industries of Bangladesh- Funded by **Ministry of Science and ICT, GoB, 2010-11**
- **18.** Antibacterial activity of aqueous and organic extracts of Terminalia chebula and its partial characterization- Funded by Centre for Advanced Studies & Research in Biol Sciences, DU, 2010-11
- **19.** Isolation and Identification of Causative Agents for Vibriosis Affecting Penaeid Shrimp from the Hatcheries and Coastal Waters of Cox's Bazar, Bangladesh. Funded by **UGC** through DU, **2009-10**

- **20.** Characterization of probiotic bacteria isolated from indigenous environment to control diseases in shrimp aquaculture. Funded by **Biotechnology Research Centre**, **DU**, **2008-09**
- 21. Isolation and Identification of Causative Agents for Vibriosis Affecting Penaeid Shrimp from the Hatcheries and Coastal Waters of Cox's Bazar, Bangladesh- Funded by Centre for Advanced Studies and Research in Biological Sciences, University of Dhaka, 2008-09
- **22.** Discovery of probiotic bacteria from indigenous microorganisms to control diseases in shrimp aquaculture funded by **Biotechnology Research Centre**, **DU**, **2007-08**
- **23.** Molecular cloning of a Bacillus 'kerA' gene for increased production of keratinase, suitable for biotechnological application in leather industries funded by **UGC**, **Bangladesh 2007-08**

# **Mentoring Activities**

Mentored two PhD, 3 MPhil and 28 MS students for producing their dissertations.

#### Consultation

- Expert member, Selection board for the appointment of Lecturer and Assistant Professor, Jashore University of Science and Technology (JUST), Jashore from Jul 2021 onwards.
- Expert member, Selection board for the appointment of Associate Professor and Professor, Patuakhali Science and Technology University (PSTU), Dumki, Patuakhali from 2017 to date.
- Expert member, Fiber quality improvement Division, Bangladesh Jute Research Institute (BJRI), Manik Mia Avenue, Dhaka, Nov 29, 2020
- Expert member, Committee for 'Cosmetics and related products' (2019-2021), Bangladesh Standard and Testing Institute (BSTI), Ministry of Industry, Govt. of People's Republic of Bangladesh
- Principal Investigator, "Develop and disseminate primer-based laboratory protocol for testing AHPND/EMS of Black Tiger Shrimp", a project of 'Solidaridad Network Asia' submitted in Jun 2019
- Member, National Fish Health Management Strategy, Ministry of Fisheries and Animal Resources, Government of the People's Republic of Bangladesh
- Resource Speaker, workshops on "Scientific Writings" for Medical professionals, organized by Bangladesh Medical Research Council (BMRC). Jun-Jul 2018 at BMRC Bhaban, Mohakhali, Dhaka
- Consultant Microbiologist, WorldFish for sharing resources and developing service-based support for academic and development research
- Member, Expert working group on 'Behavioral Interventions of Street Food Vendors for Strengthening Street Food Safety in Dhaka City, Bangladesh', supervised by Dr. Aliya Naheed, Principal Investigator and Associate Scientist, icddr,b, Mar 2014.
- Consultant, "Developing Strategy for Laboratory Networking and Human Resources Development Plan", National Food Safety Laboratory, IPH, Mohakhali, Dhaka. Aug 13, 2012.
- Consultant Microbiologist, Identification of problem of mass mortality in Golda hatcheries and ghers of Khulna, Bagerhat and Sathkhira, and recommendations. Department of Fisheries, GoB, Jun 2012.
- Consultant Microbiologist, a project on "Base line water quality study along the shrimps value chain in Bangladesh", funded by United Nations International Development Organization (UNIDO) and University of Stirling, Scotland, (numbered EE/BGD/05/B02), Dec 2009 to Mar 2010.

#### Courses/ Workshop attended

- 1. National Fish Health Management strategy: policy-making workshop, BRAC CDM, Savar, Dhaka. Sep 20-22, 2018
- 2. National Conference on Diagnosis of Genetic Disorders in Bangladesh: present situation and future directions, IPH Auditorium, IPH Building, 15 April 2017
- 3. Organized a Workshop on "CRISPR-Cas9 Genome Editing Technology" for <u>GNOBB</u> in CARS Conference room, University of Dhaka, March 28, 2017

- 4. **MM Karim**. 3<sup>rd</sup> Entrepreneurial workshop for Startup experience for scientists and engineers. 1<sup>st</sup> International Congress on Coastal Biology in Qing Dao, China, Aug 19-21, 2015
- 5. **MM Karim**. 2<sup>nd</sup> Entrepreneurial workshop for Startup experience for scientists and engineers. <u>1<sup>st</sup> International Congress on Coastal Biology</u> in YanTai, China, Sep 25-30, 2014
- 6. Asian Meeting of Young Scientists, organized by Science Council of Japan. Tokyo, Japan. 13-14 Feb 2014
- 7. Asia Pacific Regional Meeting, Duke of Edinburgh's International Award Foundation. 26-28 October, 2013. Holiday Inn Silom Hotel, Bangkok, Thailand
- 8. Virtual Media Coaching over telephone, organized by UN Foundation and Havas PR, 200 Madison Avenue, New York, Sep 20, 2013
- 9. Workshop on *Scientific Communication*. <u>Global Young Academy General Assembly (GYA GA)</u>, German Academy of Sciences Leopoldina, Halle (Salle), Germany. May 14, 2013.
- 10. Regional workshop on *Water-related microbiology*, NORHED Seed Funding 2012, Seagull Hotels, Cox's Bazaar, Bangladesh. February 18-21, 2013
- 11. ASM Workshop on Scientific writing and Publishing. Sasakawa Auditorium, ICDDR,B, Dhaka. February 16, 2013
- 12. Regional workshop on *Water-related microbiology*, NORHED Seed Funding 2012, **Tribhuvan University**, **Kirtipur**, **Kathmandu**, **Nepal**, January 6-10, 2013
- 13. <u>Orientation Training on Good Aquaculture Practices (GAqPs) for university teachers,</u> Organized by Bangladesh Shrimp and Fish Foundation (BSFF) in association with BFRF and DoF. 28 June 2012. Centre for Advanced Research in Sciences (CARS), University of Dhaka, Dhaka.
- 14. <u>Training on Good Aquaculture Practices (GAqPs)</u>, Phase 4, Organized by Bangladesh Shrimp and Fish Foundation (BSFF), 3-7 Dec 2011 (Residential workshop). CSS Ava Center, 82 Rupsha Strand Road, Khulna
- 15. <u>Microbiological Risk Assessment Workshop, phase 2</u>. Organized by the FAO Food Safety Project Team under the project of "Improving food safety and food control in Bangladesh". 21-23 November 2011. Hotel Royal Park, Banani, Dhaka, Bangladesh.
- 16. <u>Microbiological Risk Assessment Workshop</u>. Organized by the FAO Food Safety Project Team under the project of "Improving food safety and food control in Bangladesh". 21-26 Sep 2011. Hotel Lake castle, Gulshan, Dhaka.
- 17. Global Young Academy General Assembly (GYAGA), Mar 20-22, 2011. German Institute of Economics Research (DIW), Berlin, Germany
- 18. First Humboldt Kolleg International Conference. Theme: "Environmental challenges in the new millennium". Organized by Association of Humboldt Fellow Bangladesh at Senate Bhaban, University of Dhaka, and Dhaka Sheraton Hotel, 19-21 Nov 2009.
- 19. International symposium on <u>"Regulatory and Safety Issues in the Commercialization of Biotechnology Research in the Developing Countries"</u>. Dhaka, Bangladesh Dec 2-4, 2008.
- 20. Workshop on "Fisheries and aquaculture Enterprise development project for the Adivashi communities in the North and Northwest region of Bangladesh." Organized by WorldFish Centre, Bangladesh Fisheries Research Forum (BFRF) and Caritas. Caritus auditorium, Dinajpur, Bangladesh. 24 Nov, 2008.
- 21. Workshop on "Managing Science for a Better World", organized by **World Economic Forum** in association with **InterAcademy Panel on International Issues (IAP)**. Tianjin, People's Republic of China, 26 Sep 2008.
- 22. Workshop on "The Role of Frontier Science in Shaping Society", organized by World Economic Forum in association with InterAcademy Panel on International Issues (IAP). Tianjin, PR China, 26 Sep 2008.
- 23. Conference on "Annual Meeting of the New Champions 2008", organized by World Economic Forum. Tianjin, People's Republic of China, 27-28 Sep 2008.
- 24. Workshop on "Integrated Water Resource Management" (IWRM) organized by Bangladesh Centre for Advanced Studies (BCAS). 2007.
- 25. Conference on "Promotion of Biotechnology in Bangladesh: National and International Perspectives". ICDDR, B, Dhaka, Bangladesh. April 6-8, 2007.
- 26. 1st Bangladesh-Japan Joint International Conference, 27 Dec 2005, Pan Pacific Sonargaon, Dhaka Bangladesh.
- 27. "<u>Practical Proteomics</u>". A course organized by the 4<sup>th</sup> International Conference of the Canadian Proteomics Initiative at McGill University and Genome Quebec Innovation Centre, Montreal, Quebec, Canada in May 17<sup>th</sup> and 18<sup>th</sup> 2004.
- 28. <u>"High level expression of heterologous proteins in yeast".</u> A practical course organized by International Center for Genetic Engineering and Biotechnology (ICGEB), New Delhi, India. 29th October to 9th November 2001.

- This course included hands on training in using *Pichia pastoris* as a model eukaryotic system for achieving high level expression of hepatitis B surface antigen.
- 29. <u>"Modern Methods in Diagnostic Bacteriology"</u>: A workshop organized by International Center for Diarrheal Diseases Research, Bangladesh (icddr,b), Dhaka, Bangladesh. 4th March to 7<sup>th</sup> March, 1996



#### **Honours and Awards**

- 1. Third World Academy of Sciences (TWAS) young scientist prize in the field of Biological Sciences for the year 2007, http://www.bas.org.bd/awards/twas-young-scientist-award.html
- 2. Bangladesh Academy of Sciences (BAS) Gold Medal Prize in the field of Molecular Biology and Genomics for the year 2007
- 3. University Grants Commission of Bangladesh (UGC) Award 2006 in the field of Physical and Biological Sciences
- 4. The NIH Fellowship to do the post-doctoral research 2002-2004 in the Department of Biochemistry, McGill University, Montreal, Canada
- 5. The Charles Wallace William trust fund and UMIST studentship for doing Ph.D. at UMIST, Manchester, UK, 1997-2000
- 6. Dhaka University grants scholarship in B. Sc. (Honours), 1991
- 7. Dean's Honours award, University of Dhaka, Dhaka, 1995
- 8. Rajshahi Board scholarship in Higher Secondary Certificate (HSC) level, 1988
- 9. Rajshahi Board scholarship in Secondary School Certificate (SSC) level, 1986
- 10. Best Cadet Award from Pabna Cadet College, Pabna, Bangladesh, 1988

#### **Professional Affiliations**

- Immediate past General Secretary, Global Network of Bangladeshi Biotechnologists (GNOBB) Executive Committee (2016-19), and Life Member, (LM 21) <a href="https://gnobb.org">http://gnobb.org</a>
- ➤ **Member,** Board of Advisors, International Society of Bangladesh-affiliated Microbiologists (ISBM) (2022-23), https://www.facebook.com/groups/297484840869088/
- Member, Self-assessment entity, Department of Microbiology, DU, for Institutional Quality Assurance Cell, Dhaka University (IQAC-DU), 2016-17, <a href="https://www.du.ac.bd">www.du.ac.bd</a>
- Executive Board Member, Asian Federation of Biotechnology (AFOB) Bangladesh (Founding member, Regn no. BD00018, admitted in Apr 2017) <a href="https://www.afob.org/about/boardmembers.html">https://www.afob.org/about/boardmembers.html</a>
- > Board Member, Division of Applied Microbiology, AFOB. https://www.afob.org/about/divisions.html#n
- Member, Advisory Board for "ECA Alumni Grant Project of Department of State, USA". American Centre, US Embassy of Bangladesh, Baridhara, Dhaka.
- Member, Advisory Board, Bangladesh Biology Olympiad. http:/r, www.onlinebdbo.co.cc/
- Life member (BFRF 115), Bangladesh Fisheries Research Forum (BFRF), www.bfrf.org
- Member, (ID no. 5684 9433) American Society for Microbiology since 20th June 2011, www.asm.org
- Member, Academic Council, University of Dhaka, www.du.ac.bd
- Life member, Bangladesh Society of Microbiologists (BSM), <a href="https://www.bsm.org.bd/">http://www.bsm.org.bd/</a> and
  - Joint Secretary (2008-2009), and Member (2022-23) of the Executive Committee
- Life member, The University of Manchester Alumni Association; Membership no: UP167328
- Life member, Dhaka University Microbiologists Alumni Association (DUMAA);
- Life member, Dhaka University Alumni Association (DUAA);
- ➤ Life member, Dhaka University Registered Graduates;
- Life member (ID 27), Dhaka University Microbiology Department Alumni Association (DUMDAA)
- Life member, Bangladesh Association of Biotechnology (BABT);
- Life member (ID 2025), Asiatic Society of Bangladesh (ASB) <a href="https://www.asiaticsociety.org.bd/">https://www.asiaticsociety.org.bd/</a>

- Associate member (ID 399), Bangladesh Botanical Society;
- > Young researcher member (ID 00994854), Biochemical Society, UK; https://www.biochemistry.org/
- Life member (LM 4), Treasurer of the Executive Council, Bangladesh Society for Bioinformatics (BSB)
- Founding Member, Global Young Academy. <a href="http://www.globalyoungacademy.net/">http://www.globalyoungacademy.net/</a>
- ➤ Member, Islamic World Young Academy of Sciences (IYAS) <a href="http://www.iy-sa.org/">http://www.iy-sa.org/</a>
- Primary Member, Committee of Action for Research, Extension and Services (CARES)
- **Executive Member** (2014-16, 2017-19), Bangladesh Society for Pharmaceutical Professionals (BSPP)
- Life member, Zoological Society of Bangladesh (ZSB) (LM number 815, admitted in Dec 2015)
- ➤ Member, Bangladesh Association for Plant Tissue Culture and Biotechnology (BAPTC&B) Membership no. 0099454, admitted in 2017 (subscription cleared until 2019)
- President Emeritus, National Young Academy of Bangladesh (NYAB) <a href="https://nyabangladesh.org/">https://nyabangladesh.org/</a>
- Associate Life Member, Malaysian Society of Oral Microbiology and Oral Immunology (MySOMOI)
- ➤ EC Member (2008-2017), The Duke of Edinburgh's Award Foundation Bangladesh, <a href="http://deabd.org/deabd/">http://deabd.org/deabd/</a>

#### Organizing Co-curricular and Extra-curricular activities

- 1. Workshop Coordinator, *Good Laboratory Practice (GLP)* by Dr Md Jakir Hosen, SUST at Department of Microbiology, DU, 28 Mar 2022
- 2. Convener, Program Sub-committee, 35<sup>th</sup> BSM Annual Conference, NNAC Senate Bhaban, University of Dhaka, Dhaka. Dec, 11, 2021
- 3. Convener, Program Sub-committee, 34<sup>th</sup> BSM Annual Conference (International e-conference) Dec, 19-20, 2020
- 4. Lecture on "Combating the Public Health risks: A procedural approach" for the members of Dhaka University Nature Conservation Club (DUNCC). Organized by Department of Zoology, University of Dhaka for Victory Day 2020 Celebration. Dec 18, 2020
- 5. Session Chair, 'Environment and Its Element: Damage and Development', 1<sup>st</sup> International Student Research Conference, organized by Dhaka University Research Society (DURS), Dec 6, 2020
- 6. Keynote lecture on 'Strengthening Engagement of Rural Girls in STEM Education for a Better Bangladesh" organized by Educational and Cultural Society (ECS), Bangladesh. FMPE Seminar Room, BARI, Gazipur. Nov 7 and Oct 24, 2020
- 7. Organizer, Webinar on "One health and pandemic: Bangladesh perspective". Organized by BSM, Oct 10, 2020
- 8. Convener, Judges' panel of Life Sciences, International Poster Presentation Competition (IPPC) 2020, organized by National Young Academy of Bangladesh (NYAB) in association with SLAYS, TYSA and INYAS. Virtual presentation, Sep-Oct 2020.
- 9. Moderator, Webinar on "Promoting Academia-Industry Partnership in the Light of COVID-19 Crisis: Way Forward" Organized by Asian Federation of Biotechnologists (AFOB) Bangladesh and CARES. Aug 22, 2020
- 10. Organizer, Virtual Panel Discussion on "Towards Effective COVID-19 vaccines: Possibilities and Challenges". Organized by the Department of Microbiology, DU, BSM and DUMAA, Jul 26, 2020
- 11. Panelist and Organizer, Webinar on "Pandemic of Infectious authorship: To be or not to be treated", Organized by National Young Academy of Bangladesh (NYAB). Jul 21, 2020
- 12. Moderator, Webinar on 'স্বাস্থ্যখাতে গ্র্যাজুয়েট মাইক্রোবায়োলজিস্টদের প্রয়োজনীয়তা: কোভিড১৯ প্রেক্ষাপট ও ভবিষ্যৎ' Organized by the BSM and DUMAA, Jun 13, 2020
- 13. Moderator, e-Symposium on "Expert opinion on COVID-19 pandemic prevention, treatment and management. Organized by BSM and DUMAA, May 30, 2020
- 14. Executive Editor, Microbiology Directory 2019, Published by Department of Microbiology, University of Dhaka during the Celebration of 40<sup>th</sup> Founding Anniversary of the Department. Dec 27, 2019

- 15. Member, Conference Organizing Committee, 4th IPFS-GNOBB International Conference 2019, University of Dhaka, Dhaka, Nov 11-13, 2019.
- 16. Organizing Secretary, 3<sup>rd</sup> International GNOBB Conference 2017, Dec 29-30, 2017, Dhaka University
- 17. *Head, Program and Scientific sub-committee*, 30<sup>th</sup> Annual Conference, Bangladesh Society of Microbiologists (BSM) at Senate Hall, University of Dhaka, Dhaka, April 29, 2017.
- 18. Chair, Organizing Secretariat, 2<sup>nd</sup> Int'l GNOBB Conference 2015, Jan 9-10, 2015, Dhaka University
- 19. Games teacher, Department of Microbiology, University of Dhaka (Mar 1997 to date)
- 20. Students' Advisor, Department of Microbiology, University of Dhaka (Jul 2009 to Aug 2012)
- 21. Award Leader, Duke of Edinburgh's Award Foundation in Bangladesh. http://www.deabd.org
- 22. Paper setter for Biology (Higher Secondary level), National Biology Olympiad.
- 23. National Adjudicator, Projects on Biological Science presented by high school and college students, Notre Dame College in 2010, 2011 and 2012
- 24. Organizing Secretary, 24th Annual Scientific Conference, Bangladesh Society of Microbiologists, 2008
- 25. Organizing Secretary, 25th Annual Scientific Conference, Bangladesh Society of Microbiologists, 2009

# **Countries visited**

Europe	UK, Germany, Netherlands, Switzerland and France	
North America	Canada and USA	
South America	Chile	
Africa	South Africa	
Asia	India, Malaysia, China, Nepal, Thailand, Japan, Turkey, Indonesia, Bhutan,	
	Russian Federation, Taiwan (ROC) and Singapore	

Web link at DU <a href="https://www.du.ac.bd/faculty/faculty\_details/MBI/1650">https://www.du.ac.bd/faculty/faculty\_details/MBI/1650</a> at ORCID <a href="https://orcid.org/0000-0003-0476-8239">https://orcid.org/0000-0003-0476-8239</a>

#### References

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#### Miscellaneous info:

#### National collaboration

1. Professor Firdausi Qadri, PhD

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