

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



Academic Qualification

Post-doc (2002-2004): Worked in the laboratory of Professor Nahum Sonenberg, Department of Biochemistry, McGill University, Montréal, Canada.

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

PhD (1997-2000): Obtained from the Department of Biomolecular Sciences, University of Manchester Institute of Science and Technology (UMIST), Manchester, UK, working under the supervision of Prof. John EG McCarthy, Research chair of Genetics, UMIST, Manchester, UK.

Thesis title: Translation Regulation by 4E-Binding Proteins

MSc (1991-1992, Exam held in 1995): Obtained 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 Diarrhoeal Diseases Research, Bangladesh (ICDDR, B), Dhaka, Bangladesh, under the supervision of Dr. Firdausi Qadri, Senior Scientist of the center.

Thesis title: Cholera toxin specific subclass distribution of IgG and IgA isotypes in patients with cholera

BSc (Honours) (1988-1991, Exam held in 1993): Obtained from the Department of Microbiology, University of Dhaka, Bangladesh, and was awarded **First class** (68.5%). Botany and Biochemistry were studied as minor subjects, and Microbiology was the major field of study.

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 17th in the combined merit list position in Rajshahi Board, Bangladesh.

SSC (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.

Employment Record

Period	Position held	Name of the Institution
Feb 2011- Onwards	Professor	Department of Microbiology University of Dhaka, Dhaka, Bangladesh
Oct 2005- Feb 2011	Associate Professor	Department of Microbiology University of Dhaka, Dhaka, Bangladesh
Nov 2002- Oct 2004	Post-doctoral Fellow	Department of Biochemistry, McGill University, Montreal, QC, Canada
Jun 2001- Oct 2005	Assistant Professor	Department of Microbiology University of Dhaka, Dhaka, Bangladesh
Sep 1999- Jun 2000	Student Demonstrator	Department of Biomolecular Sciences, University of Manchester Institute of Science and Technology (UMIST), Manchester, M60 1QD, UK
Sep 1997- Dec 2000	Graduate Student	Department of Biomolecular Sciences, UMIST, Manchester, M60 1QD, UK
Jan 1997- Jun 2001	Lecturer	Department of Microbiology University of Dhaka, Dhaka, Bangladesh
Jan 1996- Apr 1996	Research Officer	Immunology Laboratory, Laboratory Sciences Division, ICDDR, B. Mohakhali, Dhaka, Bangladesh
Jun 1993- Dec 1995	Research Student	Immunology Laboratory, LSD, ICDDR, B, Dhaka, Bangladesh

Additional service experience

- Developed the syllabus for the degree of Bachelor of Science for the Department of Microbiology, Noakhali University of Science and Technology, Noakhali in 2007.
- Developed the syllabus for the degree of Bachelor of Science for the Department of Microbiology and Biotechnology, Jagannath University, Dhaka, Bangladesh in 2008.

Research Interests

1. Development of *Probiotic Technology* for application in shrimp industries and fish aquaculture.
2. Molecular cloning of recombinant genes for increased production of products having biotechnological importance for application in industries
3. Antimicrobial study of herbs and characterization of the respective phytochemicals
4. Clinical presentations, molecular characterization and genomics study of viruses for deciphering the role of proteins in pathogenesis and in vaccine design

List of Publications

2013

1. 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* (in press).
2. Rahman S, Khan SN, Naser MN and **Karim MM**. 2013. Probiotic Technology for Sustainable Aquaculture. *In: Proceedings of 5th Fisheries Conference and Research Fair 2012*, published by Bangladesh Fisheries Research Forum (BFRF) (in press).

2012

3. 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 1st International Exhibition on Dairy, Aqua and Pet animals*. Published by Animal Health Companies Association of Bangladesh. pp 204-10.
4. Farzana T, Rahman S, Naser MN and **Karim MM**. A molecular insight of some putative probiotic bacteria to address their antagonistic activity against pathogenic vibrios. (Submitted at J. Bangladesh Acad. Sci. Ref. no. 1466).
5. Rahman Mahdia, Mostafa MG and **Karim MM**. 2012. The bactericidal activity of *Terminalia chebula* is enhanced upon addition of Manganese salts. *International Journal of Medicinal and Aromatic Plants*. **2** (2) 214-8.
6. 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.), Bangladesh Academy of Sciences, Bangladesh. pp 161-170.
7. *Aker 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.
8. **Karim MM**. 2012. Gene therapy: The molecular bandage for treating genetic disorders. *Anwer Khan Modern Medical College Journal*. **3**(1) 24-27.

2011

9. *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.
10. *Mostafa MG, Rahman Mahdia and **Karim MM**. 2011. Antimicrobial activity of *Terminalia chebula*. *International Journal of Medicinal and Aromatic Plants*. **1** (2) 175-179.
11. 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.
12. **Karim MM** and Rahman MT. 2011. Return of Nipah virus: Bangladesh perspective. *Bangladesh Journal of Pathology*. **26** (1) 23-25.hnb
13. *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.

2010

14. *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.
15. 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.
16. 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.
17. 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.

2003-2009

18. 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.
19. 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.
20. 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.), Bangladesh Academy of Sciences, Bangladesh. pp 129-135.
21. 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.
22. ***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.
23. 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.
24. **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.
25. **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.
26. **Karim MM** and McCarthy JE. 2003. Translation repressor 4E-BP1 traps human eIF4E in a high cap-affinity state. *Dhaka University J. Biological Sciences*. **12** (1) 29-35.

1995- 2002

27. *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.
28. ***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.

29. Karim MM, Hughes JMX and McCarthy JEG. 2001. High level expression in *Escherichia coli* and purification of a functional human cap-binding protein eIF4E *Bangladesh J. Microbiology*. **18** (1) 81-88.
30. *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.
31. *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.
32. *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.
33. Sarker J, Bhuiyan S, Karim MM, Ahsan CA and Choudhury N. 1996. Effect of different stress factors on induction of thermotolerance in *Shigella dysenteriae*. *Bangladesh J. Microbiology*. **13** (1 & 2) 97-100.
34. Rus'D AA, Hossain S, Begum S, Karim MM, Ahsan CA and Hossain A. 1995. Susceptibility and resistivity of *Salmonella paratyphi* A and B to human serum. *Bangladesh J. Microbiology*. **12** (1 & 2) 73-80.

*denotes articles in peer-reviewed international journals.

My profile in ResearchGate: http://www.researchgate.net/profile/Muhammad_Karim/publications

Editorial activities

1. Member, Editorial Board; International Journal of Medicinal and Aromatic Plants (IJMAP), Published from India. ISSN 2249 – 4340, <http://www.openaccessscience.com/index.php/journals/ijmap>
Joined in February 5, 2012
2. Member, Editorial Board; International Research Journal of Applied Life Sciences, Published from Perth, Australia, ISSN: 1839-8499, <http://www.setscholars.org/index.php/irjals/index>
3. Member, Editorial Board; Anwer Khan Modern Medical College Journal, Published from Dhaka, Bangladesh, ISSN 2221-836X <http://www.banglajol.info/index.php/AKMMCJ>
4. Member, Editorial Board, Dhaka University Microbiologists Alumni Association (DUMAA) Science News Letter
5. *Publication Secretary* for the Book of *Programs and Abstracts*,, 5th International Conference on *Microbiology of Food, Health and Environment*, organized by Bangladesh-Japan Association for Science and Technology (BJAST) in Dec 26-28, 2010
6. “**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
7. Book of Abstracts, 3rd Bangladesh-Japan Joint International Conference on *Microbiology, Food Safety and Food Hygiene*, Senate Bhaban, University of Dhaka, Dhaka, 24-25 March 2008
8. Book of Abstracts, 25th Annual Conference of Bangladesh Society of Microbiologists on *Emerging Diseases and Health*, Department of Microbiology, University of Dhaka, Dhaka, 21 Dec 2009
9. Book of Abstracts, 24th Annual Conference of Bangladesh Society of Microbiologists on *Microbes in the Food and Environment*, IFST auditorium, BCSIR (Science Laboratory), Dhaka, 28 June 2008
10. “*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 http://www.diejungeakademie.de/pdf/Young-Scientist_Statement_Tianjin_2008.pdf

Abstracts / Oral Presentation in Conferences

1. Ramim AM, Rahman S, Naser MN and **Karim MM**, Oral presentation on “The application of probiotic technology to prevent prawn (*Macrobrachium rosenbergii*) mortality in the south-west coastal region of Bangladesh”, 1st International Exhibition on Dairy, Aqua and Pet animals 2012, Nov 8-10, 2012. Bangabandhu International Convention Centre, Dhaka, Bangladesh
2. **MM Karim**. Oral presentation on “A sustainable strategy towards ensuring food safety”. Global Young Academy General Assembly (GYA GA), May 20-23, 2012. University of Pretoria, Johannesburg, South Africa
3. **MM Karim**. Oral presentation on “Isolation of indigenous probiotic bacteria for application in shrimp aquaculture in Bangladesh”. The 9th Annual Scientific Conference (ASCON-IX), 2012 Chittagong Veterinary and Animal Sciences University (CVASU), Bangladesh on “Food Safety in Bangladesh: Issues and Challenges”. The Hotel Agrabad, Chittagong, Bangladesh, 7-8 March 2012
4. **MM Karim**. Oral presentation on “Isolation of indigenous probiotic bacteria for application in shrimp aquaculture in Bangladesh”. 3rd International Symposium of Bangladesh JSPS Alumni Association on “Science for Society”. BARC Auditorium, Dhaka. February 24 & 25, 2012.
5. 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 26th Annual Conference of Bangladesh Society of Microbiologists (BSM), Department of Microbiology, Chittagong University, Chittagong, 21 Jan 2012.
6. Z Hasan, M Shoeb and **MM Karim**. Antimicrobial activity of two alkaloids collected from *Murraya koenigii*. Abstract no. 22, Proceedings of the 26th Annual Conference of Bangladesh Society of Microbiologists (BSM), Department of Microbiology, Chittagong University, Chittagong, 21 Jan 2012.
7. **MM Karim**, Oral presentation on “Isolation of indigenous probiotic bacteria for application in shrimp aquaculture in Bangladesh”. 5th Fisheries Conference and Research Fair 2012, 18-19 January 2012, Organized by Bangladesh Fisheries Research Forum (BFRF).
8. **MM Karim**. Ensuring Food Safety by Isolation and Suitable Application of Probiotic Bacteria in Shrimp Industries of Bangladesh. Global Young Academy General Assembly (GYA GA), Mar 20-22, 2011. German Institute of Economics Research (DIW), Berlin, Germany
9. 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. 5th 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
10. 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. 5th 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
11. 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. 5th International Conference on Microbiology of Food, Health and Environment: Problems and prospects of developing countries, Dec 26-28, 2010. Department of Microbiology, Dhaka University, Bangladesh
12. 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. 8th Annual Scientific Conference: Towards a One world, One Health Approach. Sep 23-25, 2010, Chittagong Veterinary and Animal Sciences University (CVASU), Chittagong.
13. 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. 8th Annual Scientific Conference: Towards a One world, One Health Approach. Sep 23-25, 2010, Chittagong Veterinary and Animal Sciences University (CVASU), Chittagong.
14. 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.

15. ASM Matiur Rahman, Zeenat Jahan and **MM Karim**. Swine Flu and its impact in Bangladesh. The *key note* of the Conference was published on the proceedings of the 25th Annual Conference of Bangladesh Society of Microbiologists (BSM) on Emerging Diseases and Health, Department of Microbiology, University of Dhaka, Dhaka, 21 Dec 2009.
16. S Rahman, SN Khan, MN Naser and **MM Karim**. Safety Issues of Some Isolated Putative Probiotic on the proceedings of the 25th Annual Conference of BSM on Emerging Diseases and Health, Department of Microbiology, University of Dhaka, Dhaka, 21 Dec 2009.
17. MA Shishir, S Hossain, SN Khan, MM Hoq and **MM Karim**. Cloning of *kerA* gene for the production of keratinase for application in leather industries. Abstract no. 27 published on the proceedings of the 25th Annual Conference of BSM on Emerging Diseases and Health, Department of Microbiology, University of Dhaka, Dhaka, 21 Dec 2009.
18. 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.
19. 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. International Conference on Quality Seed and Food Security. February 17-19, 2009, Bangladesh Agricultural University, Mymensingh.
20. MG Mostafa and **MM Karim**. Antibacterial activity of aqueous and organic extracts of *Terminalia chebula*. Abstract (numbered 37) published in "4th International Botanical Conference", Department of Botany, University of Dhaka, Dhaka, 16-18 January, 2009.
21. **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 "International Symposium on Climate Change and Food Security in South Asia." Dhaka, Bangladesh, 25-30 August, 2008.
22. A Sarker, SN Khan, MN Naser and **MM Karim**. Indigenous probiotics can control pathogenic *Vibrio* infection during shrimp larva development in hatcheries. Oral presentation and Abstract (no. 44) published on the proceedings of the "15th International Congress on Biotechnology in Animal Reproduction (ICBAR)." Bangladesh Agricultural University, Mymensingh, Bangladesh. 6-7 August 2008.
23. Fahmi T, MN Naser, **MM Karim** and SN Khan. Bacteria in Dormant Embryonic Phase (cyst) of *Artemia*. Abstract no. 45 published on the proceedings of the 15th International Congress on Biotechnology in Animal Reproduction (ICBAR). Bangladesh Agricultural University, Mymensingh, Bangladesh, 6-7 August 2008.
24. 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 24th Annual Conference of BSM on Microbes in the Food and Environment, IFST auditorium, BCSIR, Dhaka, 28 June 2008.
25. MS Rahman, A Sarker, MN Naser and **MM Karim**. Isolation of pathogenic bacteria causing vibriosis from hatcheries of shrimp aquaculture. Abstract no. 37 published on the proceedings of the 24th Annual Conference of BSM on Microbes in the Food and Environment, IFST auditorium, BCSIR (Science Laboratory), Dhaka, 28 June 2008.
26. MT Alam, **MM Karim** and SN Khan. Antibacterial activity of different solvent extracts of *Achyranthes aspera* and *Cassia alata*. Abstract no. 49 published on the proceedings of the 24th Annual Conference of BSM on Microbes in the Food and Environment, IFST auditorium, BCSIR (Science Laboratory), Dhaka, 28 June 2008.
27. A Sarker, MN Naser and **MM Karim**. Discovery of probiotic bacteria from indigenous microorganisms to control diseases in shrimp aquaculture. 3rd Bangladesh-Japan Joint International Conference, Mar 24-25, 2008, Senate Bhaban, University of Dhaka, Dhaka, Bangladesh.
28. I Ahmed and **MM Karim**. Analyses of host binding phenomenon of Avian Influenza virus based on Bioinformatics. 23rd Annual conference of BSM. June 22, 2007, Department of Microbiology, University of Dhaka, Dhaka.
29. I Ahmed and **MM Karim**. Alarm over Bird flu. An article published in the 22nd Annual conference of BSM 2006, Department of Microbiology, University of Dhaka, Dhaka.

30. **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. Bangladesh Institute of Nuclear Agriculture, Mymensingh, Bangladesh.
31. U Hany, KK Atahar, **MM Karim** and ZI Seraj. Sub-cloning in pGREEN vectors for efficient *Agrobacterium*-mediated plant transformation. 19th Annual conference of BSM 2002, Dept. of Microbiology, University of Dhaka, Dhaka, Bangladesh.
32. **MM Karim**, J Hughes and J McCarthy. Differential effects of phosphorylatable sites in 4E-BP1 implicated in eukaryotic translation regulation. 18th Annual conference of Bangladesh Society of Microbiologists 2001, Atomic Energy Centre, Dhaka, Bangladesh.
33. J Hughes, **MM Karim** and J McCarthy. Differential effects of phosphorylation-mimic mutations at sites in 4E-BP1 implicated in translation regulation. Translation UK 2000. University of Cambridge, Cambridge, UK.
34. **MM Karim**, J Hughes and J McCarthy. Enhanced affinity of human eIF4E for the mRNA 5' cap due to binding of 4E-binding proteins. Translation UK 1999. University of Dundee, Dundee, UK.
35. 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 eIF4E as Target. British Yeast Group Meeting 1999, Nottingham, UK.
36. T von der Haar, M Ptushkina, **MM Karim** and J McCarthy. 4th Annual RNA meeting 1999. University of Edinburgh, Edinburgh, Scotland.
37. 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. Translation UK 1998 University of Leicester, Leicester, UK.

Research Grant received as Principal Investigator

- *Climate change: it's impact on agriculturally-important Azotobacter spp in the coastal areas of Bangladesh*- Funded by **University Grants Commission Bangladesh** through University of Dhaka, **2012** (Approved and to be received)
- *Increased Salinity: Its effect on agriculturally-important bacteria, Azotobacter spp in the coastal agriculture of Bangladesh* - Funded by **Ministry of Science and Technology, Government of the People's Republic of Bangladesh, 2012-13** (ongoing)
- *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** (Completed).
- *Ensuring food safety by isolation and suitable application of Probiotic Bacteria in Shrimp industries of Bangladesh*- Funded by **Ministry of Science and ICT, Government of the People's Republic of Bangladesh, 2010-11** (Completed).
- *Antibacterial activity of aqueous and organic extracts of Terminalia chebula and its partial characterization*- Funded by **Centre for Advanced Studies and Research in Biological Sciences, University of Dhaka, 2010-11** (Completed).
- *Isolation and Identification of Causative Agents for Vibriosis Affecting Penaeid Shrimp from the Hatcheries and Coastal Waters of Cox's Bazar, Bangladesh*. Funded by **University Grants Commission Bangladesh** through University of Dhaka, **2009-10** (Completed).
- *Characterization of probiotic bacteria isolated from indigenous environment to control diseases in shrimp aquaculture*. Funded by **Biotechnology Research Centre, University of Dhaka for 2008-09** (Completed).
- *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** (Completed).

- *Discovery of probiotic bacteria from indigenous microorganisms to control diseases in shrimp aquaculture* - a project funded by **Biotechnology Research Centre, University of Dhaka for 2007-08** (Completed).
- *Molecular cloning of a Bacillus 'kerA' gene for increased production of keratinase, suitable for biotechnological application in leather industries* - a project funded by **University Grants Commission, Bangladesh 2007-08** (Completed).

My Research Project is highlighted in page 62 of "National Database on Biotechnology Research & Personnel", published by National Institute of Biotechnology, Savar, June 2011.

Consultation

- Consultative Meeting on "Developing Strategy for Laboratory Networking and Human Resources Development Plan", Conference Room, National Food Safety Laboratory, Institute of Public Health, Mohakhali, Dhaka. Aug 13, 2012.
- Consultant Microbiologist, Identification of problem of mass mortality in Golda hatcheries and ghers of Khulna, Bagerhat and Sathkhira, and preparation of recommendations. Department of Fisheries, People's Republic of Bangladesh. June 2012.
- Consultant Microbiologist, **United Nations International Development Organization (UNIDO)** for a project "Base line water quality study along the shrimps value chain in Bangladesh". Dec 2009 to Mar 2010. A project funded by UNIDO in association with University of Stirling, Scotland, numbered EE/BGD/05/B02. (Completed).

Courses/ Workshop attended

1. Regional workshop on Water-related microbiology, NORHED Seed Funding 2012, Seagull Hotels, Cox's Bazaar, Bangladesh. February 18-21, 2013
2. ASM Workshop on Scientific writing and Publishing. Sasakawa Auditorium, ICDDR,B, Dhaka. February 16, 2013
3. Regional workshop on Water-related microbiology, NORHED Seed Funding 2012, **Tribhuvan University, Kirtipur, Kathmandu, Nepal**, January 6-10, 2013
4. Orientation Training on Good Aquaculture Practices (GAQPs) for university teachers. 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.
5. Training on Good Aquaculture Practices (GAQPs), Phase 4, Organized by Bangladesh Shrimp and Fish Foundation (BSFF), 3-7 Dec 2011 (Residential workshop). CSS Ava Center, 82 Rupsha Strand Road, Khulna
6. Microbiological Risk Assessment Workshop, phase 2. 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.
7. Microbiological Risk Assessment Workshop. Organized by the FAO Food Safety Project Team under the project of "Improving food safety and food control in Bangladesh". 21-26 September 2011. Hotel Lake castle, Gulshan, Dhaka, Bangladesh.
8. Global Young Academy General Assembly (GYAGA), Mar 20-22, 2011. German Institute of Economics Research (DIW), Berlin, Germany
9. 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.
10. International symposium on "Regulatory and Safety Issues in the Commercialization of Biotechnology Research in the Developing Countries". Dhaka, Bangladesh Dec 2-4, 2008.
11. 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. Caritas auditorium, Dinajpur, 24 Nov, 2008.
12. 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.
 13. 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, People’s Republic of China, 26 Sep 2008.
 14. Conference on “Annual Meeting of the New Champions 2008”, organized by **World Economic Forum**. Tianjin, People’s Republic of China, 27-28 Sep 2008.
 15. Workshop on “Integrated Water Resource Management” (IWRM) organized by Bangladesh Centre for Advanced Studies (BCAS). 2007.
 16. Conference on “Promotion of Biotechnology in Bangladesh: National and International Perspectives”. ICDDR, B, Dhaka, Bangladesh. April 6-8, 2007.
 17. 1st Bangladesh-Japan Joint International Conference, 27 Dec 2005, Pan Pacific Sonargaon, Dhaka Bangladesh.
 18. “Practical Proteomics”. A course organized by the 4th International Conference of the Canadian Proteomics Initiative at McGill University and Genome Quebec Innovation Centre, Montreal, Quebec, Canada in May 17th and 18th 2004.
 19. “High level expression of heterologous proteins in yeast”. 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.
 20. “Modern Methods in Diagnostic Bacteriology”: A workshop organized by International Center for Diarrhoeal Diseases Research, Bangladesh (ICDDR, B), Dhaka, Bangladesh. 4th March to 7th March, 1996.

Awards and Distinctions

- Travel grant award from the **Volkswagen Stiftung**, Germany to participate in the General Assembly of Global Young Academy (GYA), DIW Berlin, Mar 20-22, 2011
- Travel grant award from the **InterAcademy Panel on International Issues (IAP)** to participate in the Conference on “Annual Meeting of the New Champions 2008”, organized by World Economic Forum. Tianjin, People’s Republic of China, 27-28 Sep 2008
- **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>
- **Bangladesh Academy of Sciences (BAS) Gold Medal Prize** in the field of Molecular Biology and Genomics for the year 2007
- **Bangladesh University Grants Commission (UGC) Award 2006** in the field of **Physical and Biological Sciences**
- The **NIH Fellowship** to do the post-doctoral research 2002-2004 in the Department of Biochemistry, McGill University, Montreal, Canada
- The **Charles Wallace William trust fund** and **UMIST studentship** for doing Ph.D. at UMIST, Manchester, UK, 1997-2000
- **Dhaka University grants scholarship** in B. Sc. (Honours), 1991
- **Dean’s Honours award**, University of Dhaka, Dhaka, 1995
- **Rajshahi Board scholarship** in Higher Secondary Certificate (HSC) level, 1988
- **Rajshahi Board scholarship** in Secondary School Certificate (SSC) level, 1986
- **Best Cadet** award from Pabna Cadet College, Pabna, Bangladesh, 1986

Professional affiliations

- Member, Advisory Board for “Alumni grant projects on high school science clubs”. American Centre, US Embassy of Bangladesh, Baridhara, Dhaka.
- Member, Advisory Board, Bangladesh Biology Olympiad. <http://www.onlinebdbo.co.cc/>
- Member, Executive Committee, The Duke of Edinburgh’s Award Foundation Bangladesh, <http://www.deabd.org/deabd/index.php>
- Life member, Bangladesh Fisheries Research Forum (BFRF), www.bfrf.org
- Member, (ID no. 56849433) American Society for Microbiology since 20th June 2011
- Member, Academic Council, University of Dhaka
- Life member of Bangladesh Society of Microbiologists (BSM), and
 - Former *Joint Secretary* of the *Executive Committee* (2008-2009)
- 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 no. 2025), Asiatic Society of Bangladesh (ASB);
- Associate member (ID no. 399), Bangladesh Botanical Society;
- Young researcher member (ID no. 00994854), Biochemical Society, UK;
- *Treasurer* of the *Executive Council* (2009), Bangladesh Society for Bioinformatics;
- Founder Member, Global Young Academy. <http://globalyoungacademy.org>
- Member, Global Network of Bangladeshi Biotechnologists (GNOBB)

Extra-curricular activities

- ❖ *Games teacher*, Department of Microbiology, University of Dhaka (Mar 1997 to date)
- ❖ Immediate past *Students’ Advisor*, Department of Microbiology, University of Dhaka (Jul 2009 to Aug 2012)
- ❖ *Award Leader*, students of ‘University of Dhaka’ to operate the Duke of Edinburgh’s Award Foundation in Bangladesh. This is a program that focuses on holistic development of the young people by engaging them in a variety of challenging activities.
- ❖ Paper setter for Biology (Higher Secondary level), National Biology Olympiad.
- ❖ National Adjudicator, Projects on Biological Science presented by high school and college students, Notre Dame College in 2010, 2011 and 2012.
- ❖ *Organizing Secretary* to stage two consecutive Annual Scientific Conferences (24th and 25th of its kind) of Bangladesh Society of Microbiologists (BSM) in 2008 and 2009.

Referees

1. Professor John E G McCarthy

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<http://www.du.ac.bd/department/common/facultymemberdetail.php?memberid=FMMBI97018&bodyid=MBI>