

CURRICULUM VITAE
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MAJOR CONTRIBUTIONS IN SCIENCE AND TECHNOLOGY DEVELOPMENT:

- Established a number of world class research laboratories in Jashore University of Science and Technology (JUST). Genome Center is one of them in which among the public universities we have first started COVID-19 test and still continuing. We also established complete genome of circulating SARS CoV-2 from south-eastern part of Bangladesh. I am the current director of the center and under my strict supervision the COVID-19 test and research have been continuing.
- Developed molecular genetics and bioinformatics BSL-2 laboratory in the department of microbiology, Dhaka University. This is a state-of-the-art facility developed under HEQEP industry-academia, MoE, GoB and TWAS, Italy funding. In this facility me and my team developed Foot-and-Mouth Disease Vaccine mono-, di- and tri-valent. We have completed field trial and submitted IP-right in Bangladesh and in India. My team established a FMDV-seed bank of all circulating strains in Bangladesh. We have established genome sequences of all vaccine and circulating strains 1st in Bangladesh.
- 1st Established Mastitis metagenome in Bangladesh. Our data established 1st Mastitis microbiome based on Whole Genome Sequencing (WGS). Proposed microbiome interactions for the progression of the disease. Established mouse model for mastitis disease which is a breakthrough important step for doing further research on mastitis preventions.

ACADEMIC RECORDS

- ✓ **Fellow** of Bangladesh Academy of Sciences
- ✓ **Postdoctoral Scholar**, Department of Molecular Genetics, Microbiology and Immunology, Rutgers University, UMDNJ-RWJMS, New Jersey, USA, 2002 - 2004.
- ✓ **Postdoctoral Scholar**, Suntory Institute for Bioorganic Research. Osaka, Japan, 1997-1999.
- ✓ **Ph.D.**, Department of Pharmaceutical Analytical Chemistry, Faculty of Pharmaceutical Sciences, University of Tokyo, Japan, 1991.
- ✓ **M.Sc.** (thesis group), Department of Biochemistry, Faculty of Biological Sciences, University of Dhaka, Bangladesh. 1st Class, 1983.
- ✓ **B.Sc.**, Department of Biochemistry, Faculty of Biological Sciences, University of Dhaka, Bangladesh. 1st Class, 1981.

SPECIAL ACADEMIC TRAINING AND DEPLOMA

- ✓ ‘Special Training on Project, Procurement and Financial Management’ UGC & World Bank, January, 2011.
- ✓ ‘Biosafety training on Blood Born Pathogen’ UMDNJ-RWSMS, NJ. USA, 2005.
- ✓ ‘Radioisotope handling training’ Rutgers University, USA, 2002, 2004.
- ✓ Course completed on ‘Developmental Neurobiology’ at International School of Neurobiology, Italy, 1990. Funded by Fidia Research Foundation
- ✓ ‘Radioisotope handling’, University of Tokyo, Japan. 1988, 1990.
- ✓ Worked as research student on bioactive peptide purification from Joro spider. University of Tokyo, Department Pharmaceutical Analytical Chemistry, Japan 1988. Funded by Ministry of Education, Japan.
- ✓ Bacterial genetics specifically on gene fusion technology on *Salmonella* Typhimurium. Chinese University of Hong Kong, Hong Kong, 1987. Funded by Commonwealth Commission.
- ✓ ‘Cell and cell organelles’. Madurai Kamraj University, India, 1985. Funded by UNESCO and Singapore National University.

EMPLOYMENT RECORD

- ✓ Professor, Department of Microbiology, Faculty of Biological Sciences, University of Dhaka, Bangladesh. 1997-to date.
- ✓ Research and Teaching Specialist II, Department of Molecular Genetics, Microbiology and Immunology, UMDNJ-RWJMS, New Jersey, USA, Sept. 2004- Sept. 2005.
- ✓ Scientist, Suntory Institute for Bioorganic Research, Suntory Co. Osaka, Japan. 1999-2002.
- ✓ Associate Professor, Department of Biochemistry and Molecular Biology, Faculty of Biological Sciences, University of Dhaka, Bangladesh. 1995 - 1997.
- ✓ Assistant Professor, Department of Biochemistry and Molecular Biology, Faculty of Biological Sciences, University of Dhaka, Bangladesh. 1991 -1995.
- ✓ Lecturer, Department of Biochemistry and Molecular Biology, Faculty of Biological Sciences, University of Dhaka, Bangladesh. 1984 -1991.

VISITING PROFESSOR

- ✓ Visiting Professor, 1996. Department of Cultural Fisheries, Faculty of Agriculture, Kochi University, Japan.
- ✓ Visiting Professor, 2012. Faculty of Life Science, Rhein-Waal University, Germany.

HONORS AND AWARD

- ✓ **University Grants Commission best researcher Gold Medal 2018**
- ✓ **Gold Medal 2018, Bangladesh Academy of Science**
- ✓ **Best researcher award 2011, University Grant Commissions of Bangladesh**
- ✓ Young Scientist Travel Award FAOBMB, Japan, 1996
- ✓ Awarded full-fund for 4th Int. Symp. On Protein Structure Function Relationship, Pakistan, 1995. Awarded first prize for best poster
- ✓ Awarded full-fund for 2nd Canberra *B.t.* Conference, Canberra, Australia, 1993
- ✓ Fida Foundation fellowship, awarded by Fida Foundation, Italy, 1991
- ✓ Monbusho Scholarship, awarded by Ministry of Education, Japan, 1988
- ✓ Commonwealth Scholarship, awarded by commonwealth commission. 1987
- ✓ UNESCO fellowship, 1985

- ✓ Merit Scholarship obtained at undergraduate and M.Sc. levels, awarded by University of Dhaka, Bangladesh, 1978-1982

CURRENT RESEARCH PROJECTS AND GRANTS: (*Total Updated grant value about than 1.5 million US\$ i.e., 120 million BDT*)

1. Development of Vaccine and Effective Diagnostic Kits for Foot-and-Mouth Disease Virus in Bangladesh. Funded by **UGC and World Bank**, 25th June 2015-24th June 2018. Window-4 Industry-Academia Innovation Fund.
2. Salmonellosis Control Program in Bangladesh: Development of Cost-Effective Pathogen Detection Method and Vaccine Production. Funded by Ministry of Education, GoB, June 2013 to June 2016.
3. Foot and mouth disease in Bangladesh: genome analysis and vaccine development, Started from Jan., 2011, Funded by **UGC and World Bank**, Completed December 2013.
4. Environmental pollution by antibiotics and resistant bacteria: its impact on dissemination of drug resistance, food hygiene and aquaculture in Bangladesh. *The Third World Academy of Sciences for the Developing World (TWAS)*, RGA. No. 08-042 LDC/BIO/AS-UNESCO FR: 3240204444 (**Principal Investigator**).
5. Bio-oxidation of As(III) to As(V) tandem with bio-trapping of As(V)- be the future environment friendly bioremediation technology for As-decontamination. *Ministry of Science and Information & Communication Technology*, Government of the People's Republic of Bangladesh. Grant no. bijoprom/sha-9/PRC-24/2009-2010/ongsho-1/ES-5/282 (**Principal Investigator**).
6. Dhaka Medical College Wastewater Discharge: A Systematic Study of Its Contribution on the Environment Pollution. *University Grants Commission of Bangladesh*. Grant no. 6(79)/bimk/gopro/bika/med/(1)/2007-08/2761. (**Principal Investigator**).
7. Pollution of Antibiotics and Resistant Bacteria: Prospective Studies on Spreading of Antibiotics Resistance, Food Hygiene and Aquaculture in Bangladesh. *Ministry of Education*, Govt. of the People's Republic of Bangladesh (**Principal Investigator**).
8. White Spot Syndrome Virus (WSSV) in shrimp in Bangladesh: Its characterization and vaccine development. (**Principal Investigator**).

MAJOR ACADEMIC DEVELOPMENT/CONTRIBUTION:

1. Developed bioinformatics course and research facilities in the department of Microbiology, University of Dhaka.
2. Developed BSL type 2 biosafety laboratory (1st of this kind in the University) in the department of Microbiology, University of Dhaka.
3. Developed mammalian cell culture laboratory in department of Microbiology and Center of Advance Research for Sciences, University of Dhaka.
4. Established vaccine seed bank and genome sequences of Foot and Mouth Disease Viruses circulating in Bangladesh, department of Microbiology, University of Dhaka.
5. Established microbial and meta-genome research in department of Microbiology, University of Dhaka.

Major Contribution in Research: Development of Foot-and-Mouth Disease Vaccine

CURRENT RESEARCH STUDENTS

- **PhD Researcher:** 08
- **MPhil Researchers:** 01
- **MS Research Student:** 08

POST-GRADUATE DEGREE AWARDED (THESIS STUDENTS)

- **PhD degree:** 06 and another three are waiting for their degrees
- **MPhil degree:** 03
- **M.Sc. degree:** >40

CURRENT RESEARCH COLLABORATIONS

1. Professor Keith A. Crandall, Computational Biology Institute, Milken Institute School of Public Health, **the George Washington University, USA**
2. Drs. Consuelo Carillo, FMD Expert, **World Organization for Animal Health (OIE), Plum Island, Animal and Plant Health Inspection Service (APHIS), NY, USA**
3. Hernando Duque, APHIS , USDA, USA.
4. Gregory Mayr, APHIS, USDA, USA.
5. Karyn Havas, FADDL, APHIS, USDA, USA.
6. Dr. Amaresh Das, APHIS, USDA-FADDL, NY 11944, USA.
7. Mrigendra Rajput, Medgene Lab., USA
8. Sue Lancaster, Medgene Lab., USA

9. Alan Young, Medgene Lab., USA
10. Industry Partner, Novelta Bestway Pharmaceuticals Ltd., Bangladesh
11. Professor Dirk Bockmuehl, Faculty of Life Science, **Rhein-Waal University**, Germany.
12. Dr. M. L. Bari, PSO, CARS, University of Dhaka, Dhaka-1000, Bangladesh.

COUNTRY VISITED

USA, Japan, Canada, Australia, UK, Germany, Netherlands, Turkey, Spain, Italy, India, New-Zealand, Malaysia, Pakistan, China, Hong Kong, Thailand, Singapore, Kuwait, Cambodia, Taiwan.

MEMEBERSHIPS IN ACADEMIC SOCIETIES AND JOURNALS

- ✓ **Fellow, Bangladesh Academy of Sciences, 2018**
- ✓ **President, Bangladesh Society of Microbiologists 2014-2015.**
- ✓ **Asian Foot Safety and Security Association (ASSFA), Founded December 2010, Founder Co-chairman & member, Vice President 2012-2014**
- ✓ Bangladesh Microbiologist Society, EC member and Life member, Former Secretary & Current EC member.
- ✓ Bangladesh Society for Pharmaceutical Professionals, EC member.
- ✓ Federation of Biological and Chemical Societies, EC member.
- ✓ Bangladesh Molecular Biology and Biochemical Society, Life member.
- ✓ Bangladesh Association for the Advancement of Sciences, Life member.
- ✓ The Society for Neuroscience, USA. Former foreign member.
- ✓ Member, New York Academy of Science, USA.
- ✓ Member, editorial board, *The Dhaka University J. Biol. Sci.*, 1997-1998, and current board member.
- ✓ Member, editorial board, *Bangladesh J. Microbiol.*, 2006-2007.
- ✓ **Member, American Society of Microbiologist, 2011~date.**
- ✓ Editorial Board Member, *Bangladesh J. Scientific and Industrial Research*. 2013-date.
- ✓ Founding Member, Committee of Action for Research, Extension and Services, 2013.
- ✓ **Editorial Board Member, Transboundary and Emerging Disease, Wiley Publisher, 2019-date.**

MEMBERSHIPS IN ADMINISTRATIVE ACADEMIC BODIES

- ✓ Senate member, University of Dhaka, 1993-1996; 1996-1999; 2009- 2017.
- ✓ Syndicate member, University of Dhaka, 1993-1996; 2009-2011.
- ✓ Board of Advance Studies, University of Dhaka. 1997 to date.
- ✓ Academic Council member, University of Dhaka, 1997 to date.
- ✓ Chairman, Department of Microbiology, University of Dhaka, 1997; 2009-2012.
- ✓ Syndicate member, Jahangirnagar University, Chancellor's Nominee, 2009-2013.
- ✓ Academic Council Member, Jahangirnagar University, 2011-date.
- ✓ Board of Advance Studies, Jahagirnagar University, Academy Council Nominee, 2009-date.
- ✓ Syndicate member, Eastern University, UGC Nominee, 2011-2017.
- ✓ Syndicate member, **Khulna University for Engineering and Technology**, Chancellor's Nominee, 2012-date.
- ✓ Board of Governor Member, Hibibullah Bahar Degree College, Dhaka, 2009-2018.
- ✓ Senate member, National University, 2013-2016.
- ✓ Member, Equivalence committee, Open University, 2013-2015.
- ✓ Academic Council member, Sylhet Agriculture University, 2014-date
- ✓ Syndicate member, **Comilla University**, 2019-date
- ✓ Syndicate, **Noakhali Science and Technology University** 2014-date

MEMBERSHIPS IN NATIONAL RESEARCH ORGANIZATIONS/BODIES

- ✓ **Expert member, National Task Force on National Biotechnology for Bangladesh. Chairperson**, Prime Minister, Government of the People's Republic of Bangladesh, Since 2010-date
- ✓ Board Governors Member Bangladesh Council for Scientific and Industrial Research, (BCSIR), S&IT Minister Nominee, 2009-2016.
- ✓ Council Member, BCSIR, 2009-2016.
- ✓ Member, University Grants Commission (UGC) 2018-2020.

MEMBERSHIPS IN PROFESSIONAL BODIES

- ✓ Joint Secretary, Dhaka University Teacher's Association, 1993.
- ✓ Former Vice-President, Japanese Universities Alumni Association of Bangladesh.

ORGANIZATION OF NATIONAL/INTERNATIONAL CONFERENCES

- ✓ Chairman, Organizing Committee, 22th and 25th Annual Conference, Bangladesh Society of Microbiologist (BSM).
- ✓ Chairman, 5th International Conference on Microbiology, Food Hygiene and Environment. Bangladesh Japan Association for Science and Technology. (This meeting founded AFSSA).
- ✓ Co-chairman, Asian Food Security Association, 1st Asian General Meeting, Osaka, September 15-17, 2012.
- ✓ Member, organizing committee, 2nd AFSSA meeting, to be held April, 2014, Hanoi Vietnam.

MEMBERSHIP IN PRO-POLITICAL/PROFESSIONAL BODIES:

- Former convenor (2009-2010) and co-convenor (2008-2009) of blue group teachers, Dhaka University
- Patron One Bangla, organized by CRI
- Co-convenor Gonotantrik Okko Parishad, a Pro-Awami League Dhaka University registered graduate association established for DU senate elections.

LANGUAGES

- ✓ Bangle – Native; English- 2nd language read, speck, and write very good
- ✓ Japanese- speak and understand well, read fairly
- ✓ Hindi and Urdu- speak and understand well

LIST OF PUBLICATIONS

Dissertation

1. Study of Methionine Degradation in *Pseudomonas aeruginosa*. M.Sc. thesis, Dhaka University, 1983.
2. Identification, Characterization and Purification of Spider Toxin Binding Protein. Ph.D. Thesis, University of Tokyo, 1991.

Journal Publications

Year 2021

1. Reuben, RC., Sarkar, SL., Roy, PC, Anwar, A., **Hossain, MA** & Jahid, IK. (2021) Prebiotics, probiotics and postbiotics for sustainable poultry production. *World's Poult. Sci. J.* <https://doi.org/10.1080/00439339.2021.1960234>.
2. Hossain, MA., Hossain, KMA., Saunders, K., Uddin, Z., Walton, LM., Raiganggar, V., Sakel, M., Shafin, R., Hossain, MS., Kabir, FK., Farugui, R., Rana, S., Ahmed, S., Chakrovorty, SK., **Hossain, MA.**, Jahid, IK. (2021) Prevalence of Long COVID symptoms in Bangladesh: A Prospective Inception Cohort Study of COVID-19 survivors. *BMJ Global Health*, (Accepted; doi: medRxiv <https://doi.org/10.1101/2021.07.03.21259626>).
3. Akter, S.; Rahman, M.S.; Islam, M.R.; Akther, M.; Marjia, M.; Rahman, M.M.; Sultana, M.; **Hossain, M.A.** (2021) Immuno-Efficacy of Multi-Epitope Chimeric Peptides Against Foot and Mouth Disease Virus: Potential Vaccine Candidates for Newly Emerged Serotype O and A. *Preprints 2021*, 2021090463 (doi: 10.20944/preprints202109.0463.v1).
4. Diba, F., Khan, MZH, Uddin, SZ., Shuvo, SR., Alam, ASMRU. M. **Anwar Hossain, MA.**, Sultana, M. (2021) Bioaccumulation and Detoxification of Trivalent Arsenic by *Achromobacter xylosoxidans* BHW-15 and Electrochemical Detection of Its Transformation Efficiency. *Scientific Reports* (accepted)
5. Al-Emran, HM., Shazid, HM, Setu, MAA., Rahman, MS., Alam, ASMRU., Sarkar, SL., Islam, MT., Islam, MR., Rahman, MM., Islam, MA., Jahid, IK., **Hossain, MA.** (2021) Genomic analysis of SARS-CoV-2 variants of concern identified from the ChAdOx1 nCoV-19 immunized patients from Southwest part of Bangladesh. medRxiv preprint doi: <https://doi.org/10.1101/2021.08.09.21261778>. (*J. Infection and Public Health*)
6. Shazid, HM., Tanvir, IM., 11. Alam, ASMRU., Sarkar, SL., Rahman, MS., Islam, OK., Setu, MD., Tanay, C., Al-Emran, HM., Jahid, IK., **Hossain, MA.** (2021) Initial reports of the SARS-CoV-2 Indian B.1.617. 2 lineage in Bangladeshi patients: risks of cross-border transmission from India. *Health Sci. reports* (Accepted)
7. Saha, O., Islam, MR., Rahman, MS., Hoque, MN., Hossain, MA., and Sultama, M. (2021) First report from Bangladesh on genetic diversity of multidrug-resistant *Pasteurella multocida* type B:2 in fowl cholera. *Veterinary World* (Accepted)
8. Sultana, KF., Saha, O., Hoque, NM., Sultana, M., and **Hossain, MA** (2021) Multilocus sequence typing of multidrug resistant *Salmonella* strains circulating in poultry farms of Bangladesh. *Brazilian J. Microbiol.* (Accepted)
9. Sarkar, SL., Alam, ASMRU., Das, PK., Pramanik, MHA., Al-Emran, HM., Jahid, IK., **Hossain, MA.** (2021) Development and validation of cost-effective one-step multiplex RT-PCR assay for detecting the SARS-CoV-2 infection using SYBR Green melting curve analysis. doi:<https://doi.org/10.1101/2021.05.06.21256629>
10. Hoque, MN., Rahman, MS., Ahmed, R., Hossain, MS., Islam, MS., Islam, T., **Hossain, MA.**, Siddiki, AMAMZ. (2021) Diversity and genomic determinants of the microbiomes

associated with COVID-19 and non-COVID respiratory diseases. doi:
<https://doi.org/10.1101/2020.10.19.345702>; *Gene report* (Accepted).

11. Siam Md.HB, Imran A, Limon Md.BH, Zahid MH, Hossain Md.A, Siddique MA, Sultana M, **Hossain MA**. (2021) Antibiotic Abuse: A Cross-Sectional Study on Knowledge, Attitude, and Behavior Among the University Students in Dhaka, Bangladesh. *Electron J Gen Med*. 2021;18(1):emXXX. <https://doi.org/10.29333/ejgm/xxxx>
12. Hoque, MN., Akter, S., Mishu, ID., Islam, MR., Rahman, MS., Akhter, M., Islam, I., Hasan, MM., Rahman, MM., Sultana, M., Islam, T., **Hossain, MA**. (2021) Microbial co-infections in COVID-19: associated microbiota and underlying mechanisms of pathogenesis. *Microbial Pathogenesis* (Review, manuscript no. YMPAT-D-21-00062R1; Accepted)
13. Hoque, MN., Sultana, M., **Hossain, MA** (2021) Dynamic changes in microbiome composition and genomic functional potentials in bovine mastitis. *J. Data Mining Genomics Proteomics*.12(1): 232 (Mini Review)
14. Nigar, S., Shah, SMT., Setu, MAA., Dip, SD., Ibnat, H., Islam, MT., Akter, S., Jahid., IK., **Hossain, MA**. (2021) Relative expression of pro-inflammatory molecules in COVID-19 patients manifested disease severities. *J. Med. Virol.*; **93**: 5805-5815
<http://dx.doi.org/10.1002/jmv.27112>
15. Al-Emran, HM., Rahman, MS., Hasan, MS., Alam, ASMRU, Islam, OK., Anwar, A., Jahid, IK., **Hossain, MA**. (2021) Metagenomic diagnosis and pathogenic network profile of SARS-CoV-2 in patients co-morbidly affected by type 2 diabetes. February 23, 2021, bioRxiv preprint doi: <https://doi.org/10.1101/2021.02.23.432535>;
16. Alam, ASMRU., Islam, OK., Hasan, MS., Al-Emran, HM., Md. Jahid, IK., Crandall, IK., **Hossain, MA**. (2020) Dominant Clade-featured SARS-CoV-2 Co-occurring Mutations Reveals Plausible Epistasis: An *in silico* based Hypothetical Model. medRxiv preprint doi: <https://doi.org/10.1101/2021.02.21.21252137>; *J. Med. Virol.* (Accepted)
17. Akter, S., Roy, PC., Ferdous, A., Ibnat, H., Alam, ASMR, Nigar, S., Jahid, IK., **Hossain, MA** (2021) Prevalence and stability of SARS CoV-2RNA on Bangladeshi banknotes. *Sci. Total Environ.*, <https://doi.org/10.1016/j.scitotenv.2021.146133>
18. Islam, MT., Alam, ASMRU., Sakib, N., Hasan, MS., Chakrovart, T., Tawyabur, M., Islam, OK., Al-Emran, HM., Jahid, IK., **Hossain, MA**. (2021) A Rapid and Cost-Effective Multiplex ARMS-PCR Method for the Circulating SARS-CoV-2 Phylogenetic Clades. medRxiv preprint doi:10.1101/2020.10.08.20209692. (Accepted, *J. Med. Virol*)
19. Saha, O., Rakhi, N. N., Hoque, M. N., Sultana, M., **Hossain, MA**. (2021). Genome-wide Genetic Marker Analysis and Genotyping of *Escherichia fergusonii* strain OTSVEF-60. *Brazilian J. Microbiol.*doi.org/10.1007/s42770-021-00441-2

Year 2020

20. Saha, O., Rakhi, N.N., Istiaq, A., Islam, I., Sultana, M., **Hossain, A.M.**, Rahman, M., M. (2020). Evaluation of Commercial Disinfectants against *Staphylococcus lentus* and *Micrococcus* spp. of Poultry Origin. *Vet. Med. Int.* Article ID 8811540 | <https://doi.org/10.1155/2020/8811540>
21. Rahman, MS., Hoque, MN., Islam, MR., Islam, I., Mishu, ID., Rahaman, MM., Sultana, M., **Hossain, MA.** (2020) Mutational Insights into the Envelope Protein of SARS-CoV-2. *Gene report* <https://doi.org/10.1016/j.genrep.2020.100997>
22. Saha, O., Islam, MR., Rahman, MS., Hoque, MN., **Hossain, MA.**, Sultana, M. (2020) Genome-wide diversity and differentiation of two novel multidrug-resistant populations of *Pasteurella multocida* type B:2 from fowl cholera. <https://doi.org/10.1101/2020.08.24.262618>
23. Hoque, MN., Istiaq, A., Rahman, MS., Rafiul Islam, MR., Anwar, A., Siddiki, AMAMZ., Sultana, M., Crandall, KA., Hossain, MA (2020) Microbiome Dynamics of Bovine Mastitis Progression and Genomic Determinants. *Genomics* **112**(6): 5188-5203, <https://doi.org/10.1016/j.ygeno.2020.09.039>
24. Rahman, MS., M. Islam, MR., Alam, ASMRU., Islam, I., Hoque, MN., Akter, S., Rahaman, MM., Sultana, M., **Hossain, MA** (2020) Evolutionary dynamics of SARS-CoV-2 nucleocapsid protein and its consequences. *J. Med. Virol.* DOI:10.1002/jmv.26626.
25. Mishu, DI., Akter, S., Alam, ASMR., **Hossain, MA.**, Sultana, M. (2020) In Silico Evolutionary Divergence Analysis Suggests the Potentiality of Capsid Protein VP2 in Serotype Independent Foot-and-Mouth Disease Virus Detection. *Frontiers in Veterinary Science*, Manuscript ID: 554288
26. Islam, OK., Al-Emran, HM., Hasan, MS., Anwar, A., Jahid, MIK., Hossain, MA (2020) Emergence of European and North American mutant variants of SARS-CoV-2 in Southeast Asia. *Transboundary Emerging Disease (TBED)*, DOI: 10.1111/tbed.13748.
27. Saha, O., Hoque, MN., Islam, OK., Rahman, MM., Sultana, M., **Hossain, MA** (2020) Multidrug-Resistant Avian Pathogenic Escherichia coli Strains and Association of Their Virulence Genes in Bangladesh. *Microorganisms*. **8**: 1135; doi:10.3390/microorganisms8081135.
28. Islam, MR., Hoque, MN., Rahman, SM., Puspo, JA., Akhter, M., Akter, S., Alam, ASMRU., Sultana, M., Crandall, KA., **Hossain, MA.** (2020) Genome Wide Analysis of Severe Acute Respiratory Syndrome Coronavirus-2 Implicates World-Wide Circulatory Virus Strains Heterogeneity. www.nature.com/articles/s41598-020-70812-6 (Scientific reports, Sci.rep.)
29. Rahman, SM., Hoque, MN., Islam, MR., Akter, S., Siddique, MA., Saha, O., Rahaman, MM., Sultana, S., **Hossain, MA.** (2020) Epitope-based chimeric peptide vaccine design against S, M and E proteins of SARS-CoV-2 etiologic agent of global pandemic COVID-19: an in silico approach. *PeerJ* **8**:e9572 <https://doi.org/10.7717/peerj.9572>

30. Rahman,MS. M. Islam, RI, Hoque,NM, Alam, ASMRU, Akther. M, Puspo, A, Salma, A, Anwar, A, Sultana, M, **Hossain, MA** (2020) Comprehensive annotations of the mutational spectra of SARS-CoV-2 spike protein: a fast and accurate pipeline. DOI:10.1111/tbed.13834.
31. Islam, MR., Rahman, MS., Al-Amin, M, Alam, ASMRU., Siddique, MA., Sultana, M. Hossaina, MA (2020) Evidence of Combined Effect of Amino Acid Substitutions within G-H and B-C Loops of VP1 Conferring Serological Heterogeneity in Foot-and-Mouth Disease Virus Serotype A. *TBED*, DOI:10.1111@tbed.13687.pdf.
32. Rubayet, ASMRU, Islam, MR, Rahman, MS, Islam, OK, **Hossain, MA** (2020) Understanding the possible origin and genotyping of first Bangladeshi SARS-CoV-2 strain. *J. Med. Virol.* 03 June 2020 <https://doi.org/10.1002/jmv.26115>
33. Al Amin, M., Ali,MR, Islam, MR., Rubayet, ASMRU, Alam, U., Shill, DK, Rahman, MS, Siddique, MA., Sultana, M., Hossain, MA (2020) Development and serology based efficacy assessment of a trivalent foot-and-mouth disease vaccine. *Vaccine*, 38 (32), 4970-4978.
34. Al-Amin1,M, Rahmat Ali1, RM, Alam, ASMRU, Siddique, MA, Rahaman, MM, Sultana, M., **Hossain, MA.** (2020) Complete Genome Sequence of Foot-and-Mouth Disease Virus Serotype O Vaccine Strain from Bangladesh. *Archives of Virology*, doi.org/10.1007/s00705-020-04711-6.
35. Hoque, M.N.; Chaudhury, A.; Akanda, M.A.M.; **Hossain, MA.**; Islam, M.T. (2020) Genomic Diversity and Evolution, Diagnosis, Prevention, and Therapeutics of the Pandemic COVID-19 Disease. *Peer J.* doi.10.7717/peerj.9689.
36. Hoque, MN., Istiaq,A., Clement, RA., Saha, O., Islam, OK., Abir, RA., Siddiki, AMAMZ., Munawar Sultana, M., Crandall, KA., M. Hossain, MA (2020) Insights into the Resistome of Bovine Clinical Mastitis Microbiome, a Key Factor in Disease Complication. *Front. Microbiol.*, 03 June 2020 | <https://doi.org/10.3389/fmicb.2020.00860>.
37. Haque, MIM, Rubayet, ASM., Alam, U, Aktera, N., Siddique, MAS, Sultana, **Hossain MA.**, Hasan, M (2020) Molecular characterization of ‘tubifex worms’ based on 16S rRNA and cytochrome c oxidase subunit 1, *Aquaculture Reports*. 16(2020) 100292, <https://doi.org/10.1016/j.aqrep.2020.100292>.

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38. Abir, RR., Marjia, M., Rakhi, NN., Saha, O., **Hossain, MA** and Rahaman, MM. (2019) In Vitro Comparative Analysis of Antibacterial Activity of Different Fractions of *Corchorus capsularis* and *Corchorus olitorius* Leaves Extracts. *Bangladesh J Microbiol.* **36**, 69-73. DOI: <https://doi.org/10.3329/bjm.v36i2.45530>
39. Mahfuza Khan1,M, Seheli, Bari, MA, Sultana, N, Khan, SA, Sultana, KF and **Hossain, MA.** (2019) Potential of a fly gut microbiota incorporated gel-based larval diet for rearing *Bactrocera dorsalis* (Hendel) *BMC Biotechnol.* **19**:94. doi.org/10.1186/s12896-019-0580-0.
40. Ali MR, Alam, ASMRU, Al-Amin, M, Siddique, MA, Sultana, M., and **Hossain, MA.** (2019) Emergence of Novel Lineage of Foot-and-Mouth Disease Virus Serotype Asia1 BD-18 (G-IX) in Bangladesh. *TBED.* <https://doi.org/10.1111/tbed.13381>.

41. Jahan, MI, Rahaman, **Hossain, MA** and Sultana, M (2019) Occurrence of Intl1 associated VIM-5 carbapenemase and co-existence of all four classes of β -lactamases in carbapenem resistant clinical *Pseudomonas aeruginosa* DMC-27b. *J. Antimicrobial. Chemotherapy* Manuscript ID: JAC-2019-0840.R
42. Al-Amin, M, Ali MR, Alam, ASMRU, Siddique, MA, Ullah, H, Sultana, M., and **Hossain, MA**. (2019) Near-Complete Genome Sequence of Foot-and-Mouth Disease Virus Serotype A: a potential Vaccine Strain Isolated from Bangladesh. *MRA*. 8:e00031-19. <https://doi.org/10.1128/MRA.00031-19>
43. Hoque, MN., Istiaq,A., Clement, RA., Munawar Sultana, M., Crandall, KA., Siddiki, AMAMZ.,M. **Hossain, MA**. (2019) Metagenomic deep sequencing reveals association of microbiome signature with functional biases in bovine mastitis. *Scientific Reports* (Accepted) www.nature.com/articles/s41598-019-49468-4
44. Alam, ASMRU, Ali MR, Siddique, MA, Ullah, H, Sultana, M, **Hossain, MA** (2019) Near-Complete Genome Sequence of a Representative Strain within Rare Foot-and-Mouth Disease Virus O/ME-SA/Ind2001BD2 Sublineage from Bangladesh. *MRA*. 8:e00705-19. <https://doi.org/10.1128/MRA.00705-19>
45. Sultana, M, Sultana, KF, Mukharjee, SK, Adnan, N, Parvez, MAK. and **Hossain, MA** (2019) Characterization of Extended Spectrum β -Lactamase Producing Bacteria Isolated from Urinary Tract Infections. *Bangladesh Med Res Counc Bull*. 45:23-33 (DOI: <https://doi.org/10.3329/bmrcb.v45i1.41805>).
46. Hasan, SM., Sultana, M. and **Hossain, MA**. (2019) Complete Genome Arrangement Revealed the Emergence of a Poultry Origin Superbug *Citrobacter freundii* Strain NR-12. *J. Global Antimicrobial Resist. (JGAR)*, 18:126-129 (DOI:10.1016/j.jgar.2019.05.031)
47. Istiaq, A., Shuvo, MSKR, Rahman, KMJ., Siddique, MA., **Hossain, MA.**, and Munawar Sultana, M (2019) Adaptation of metal and antibiotic resistant traits in novel β -Proteobacterium *Achromobacter xylosoxidans* BHW-15. *Peer J*. March 13, 2019 DOI:10.7717/peerj.6537.
48. Rakhi, NN., Alam, ASMRU., Rahaman, MM., Sultana, M. and **Hossain, MA**. (2019) Diversity of carbapenemases in clinical isolates: the emergence of blaVIM-5 in Bangladesh. *J. Infect. Chemotherapy (JIC)*. doi.org/10.1016/j.jiac.2019.01.010..

Year 2018

49. **Hossain, MA.**, Alam, ASMRU, and Ali, MR. (2018) The classification of recently emerged FMDV O/ME-SA/Ind2001 sublineages concerning two published articles in Transboundary and Emerging Diseases. *TBED*. doi:10.1111/tbad..13054.
50. Momtaz, S., Saha, O., Usha MK., Sultana, M. and **Hossain MA.**, (2018) Occurrence of Pathogenic and Multidrug Resistant Salmonella spp. in Poultry Slaughter-House in Bangladesh. *Biores Comm.* **4**(2), 506-515.
51. Sultana, M., Nusrin, S., Hasan, NA., Sadique,A., Ahmed KU., Islam, A.,**Hossain, MA.**, Longini, I., Nizam, A., Huq,A., Siddique, AK., Sack, DA., Sack,RB., Colwell, RR., Munirul, A. (2018) Biofilms Comprise a Component of the Annual Cycle of Vibrio cholerae in the Bay of Bengal Estuary. *mBio* 9(2): e00483-18; doi: 10.1128/mBio.00483-18.
52. Bachanek-Bankowska, K., Nardo, AD., Wadsworth, J., Henry, EM., Parlak, U., Timina, A., Mischenko, A., Qasim, IA., Abdollahi, D., Sultana, M., **Hossain, MA.** King, DP., and Knowles, KJ. (2018) Outbreaks of foot-and-mouth disease in the Middle East during 2015 and 2016 due to an exotic A/ASIA/G-VII virus lineage, *Emerging Infect. Dis.* Vol. **24**(6); DOI: <https://doi.org/10.3201/eid2406.170715>.
53. Siddique, MA., Haque, MIM., Sanyal, SK., Hossain, A., Nandi, SP., Alam, ASMRU, Sultana, M., Hasan, M., and **Hossain, MA.** (2018) Circulatory white spot syndrome virus in South-West region of Bangladesh from 2014 to 2017: molecular characterization and genetic variation. *AMB Express*, 8:25<https://doi.org/10.1186/s13568-018-0553-z>.
54. Siddique, MA., Ali, MR., Alam, ASMRU, Ullah, H., Rahman, A., Chakrabarty, RP., Amin, MA., Hoque, SA., Nandi, SP., Sultana, and Hossain, MA. (2018) Emergence of two novel sublineages Ind2001BD1 and Ind2001BD2 of foot-and mouth disease virus serotype O in Bangladesh, *TBED*. DOI: 10.1111/tbed.12834.

Year 2017

55. Sultana. M., Mou. TJ., Sanyal. SK., Diba.Mahmud. ZH., F.,Parvez. MAK. and **Hossain, MA** (2017) Investigation of arsenotrophic microbiome in arsenic affected Bangladesh groundwater, *Groundwater*. **55**(5):736-746.
56. Bashar, S, Sanyal, SK., Sultana, M. and Hossain, MA. (2017) Emergence of IntI1 associated blavim-2 gene cassette mediated carbapenem resistance in opportunistic pathogen *Pseudomonas stutzeri*. *Emerging Microbes and Infections (EMI)* **6**, e29; doi:10.1038/emi.2017.12

57. Sultana, M., Ullah, H. and **Hossain, MA** (2017) Progressive control pathway for FMD: success and failure in achieving the target control program in Bangladesh, *Proc. 14th ASCon. CVASU*, p1-2.
58. Haque, MI., Siddique, MA., Sanyal, SK., Hossain, A., Nandi, SP., Rahman, MS, Sultana, M., Hasan, M and **Hossain, MA** (2017) Incidence of white spot syndrome virus (WSSV) in cultured shrimp of coastal region in south-west Bangladesh, *Proc. 14th ASCon. CVASU*, p25-29.
59. Hasan, MAR., Siddique, MA., Hasan, M., **Hossain, MA.**, and Rahman, MS. (2017) 16S rRNA gene sequence based identification of *Vibrio* spp. in shrimp and tilapia hatcheries of Bangladesh. *Dhaka Univ. J.Biol.Sci.* 26(1):45-58.
60. Ali, MR., Alam, ASM., Amin, MA., Ullah, H. Siddique, MA. Momtaz, S., Sultana, M., **Hossain, MA** (2017) Complete genome sequence of the circulatory Foot and Mouth Disease Virus serotype Asia1 in Bangladesh. *GenomeA* 5(43):e01135-17 DOI: 10.1128/genomeA.01135-17.
61. Sultana, M., Sultana, KF, Mukharje, SK, Parvez, MAK and **Hossain, MA.** (2017) Screening and Characterization of Extended Spectrum β -Lactamase Producing Bacteria of Urinary Tract Infection. *Bangladesh Med. Res. Counc Bull.* 42(1): 39-48.

Year 2016

62. Chakrabarty, RP., Sultana, M., Shehreen, S., Akter, S. and **Hossain, MA.** (2016) Contribution of target alteration, protection and efflux pump in achieving high ciprofloxacin resistance in *Enterobacteriaceae*. *AMB Express* 6: 126-138.
63. Towhid, ST, Siddique, MA, Ullah, H, Sultana M. and **Hossain MA** (2016) Foot-and-Mouth Disease: current scenario in Asia and Bangladesh. *Malaysian J. Microbiol.* 12(5): 399-407.
64. Ali MR, Ullah, H, Siddique, MA, Sultana, and **Hossain MA.** (2016) Complete genome sequence of pig originated Foot-and-Mouth Disease Virus type O from Bangladesh. *GenomeA.* 4(5) e01150-16.
65. Sanyal SK, Mou, TJ, Chakrabarty, RP, Hoque, S. **Hossain, MA,** and Sultana, M (2016) Diversity of arsenite oxidase gene and arsenotrophic bacteria in arsenic affected Bangladesh soils. *AMB express* 6:2.

66. Karmaker M, Sanyal SK, Sultana M and **Hossain MA**. 2016. Association of Bacteria in Diabetic and Non-diabetic Foot Infection- an Investigation in Patients of Bangladesh, *J. Infect. Pub. Health*. 9:267-277.

Year 2015

67. Rahman A., Sultana M., Uddin MA., Malek MA and **Hossain MA**. (2015) Silkworm as an animal infection model for screening of environmental, clinical and veterinary Pathogens, *Bangladesh Med. Res. Counc Bull*. 41: 73-80.

68. Abdullah A, Alam SMS, Sultana M and Hossain MA. 2015. BioCluster: Tool for Identification and Clustering of Enterobacteriaceae Based on Biochemical Data. *Genomics, Proteomics & Bioinformatics* 13:192-199. <http://dx.doi.org/10.1016/j.gpb.2015.03.007>.

69. Sanyal SK, Karmakar M, Sultana M and **Hossain MA**. 2015. Association of *Bacillus circulans* with non-diabetic foot infection in Bangladeshi patient. Accepted for publication in *Indian J. Med. Microbiol*. 33(4)606-608.

70. Ullah H, Siddique MA, Al Amin Md, Das BC, Sultana M and **Hossain MA**. 2015. Re-emergence of circulatory foot-and-mouth disease virus serotypes Asia1 in Bangladesh and VP1 protein heterogeneity with vaccine strain IND 63/72. *Lett Appl Microbiol*, 60: 168–173. *doi:10.1111/lam.12354*.

71. Hossain A, Nandi SP, Siddique MA, Sanyal SK, Sultana M and **Hossain MA**. 2015. Prevalence and distribution of White Spot Syndrome Virus in cultured shrimp. *Lett Appl Microbiol*, 60: 128–134. *doi:10.1111/lam.12353*.

Year 2014~1984

72. Momtaz, S. Rahman, A., Sultana, M and Hossain, MA. 2014. Evolutionary analysis and prediction of peptide vaccine candidates for Foot-and- Mouth-Disease Virus type A and O in Bangladesh. *Evolutionary Bioinformatics*. 10: 187-196. *doi: 104137/EBO.S17027*.

73. Sanyal, SK., Chakrabarty, RP., **Hossain, MA** and Sultana, M. 2014. Characterization of arsenite resistant *Escherichia coli* isolated from tubewell water of Singair, Manikganj, Bangladesh. *Bangladesh J. Microbiol*. 31(1&2):13-17.

74. Naeem, N., Sultana, M., and **Hossain, MA**, (2014) A modified boronic acid (MBA) disc potentiation assay for detection of extended spectrum α -lactamase (ESBL) producing bacteria. *Bangladesh J. Microbiol*. 31(1&2):29-33.

75. Siddique MA, Ullah H, Nandi, SP., Chakma, D., Sultana M **and Hossain MA.** (2014) Molecular characterization of Foot-and-Mouth Disease Virus type O from wild pig in Bangladesh. *Bangladesh J. Microbiol.* 31(1&2):41-45.
76. Alam, SM., Amin, MR., and **Hossain, MA.** (2014) *In Silico analysis*: annotation about structural and functional features of DUF 2726 family member proteins. *Bangladesh J. Microbiol.* 31(1&2):53-58.
77. Hossain, A., Sanyal, SK., Siddique, MA., Biswas, RK., Saltana, M. and Hossain, MA. (2014) Envelope protein gene VP466- a target for PCR detection of White Spot Syndrome Virus in Shrimp. *Bangladesh J. Microbiol.* 31(1&2):65-68.
78. Ullah H, Siddique MA, Sultana M **and Hossain MA.** 2014. Complete genome sequence of foot-and-mouth disease virus type A circulating in Bangladesh. *GenomeA.* 2(3):e00506-14. doi:10.1128/genomeA.00506-14.
79. Sultana, M, Bilkis R, Diba F and **Hossain MA.** 2014. Predominance of Multidrug Resistant Zoonotic *Salmonella* Enteritidis Genotypes in Poultry of Bangladesh. *J. Poultry Sci.*, **51**: 424-434. doi.org/10-2141/jpsa.0130222.
80. Sultana M, Siddique MA, Momtaz S, Rahman A, Ullah H, Nandi SP and **Hossain MA.** 2014. Complete Genome Sequencing of Foot-and-Mouth Disease Virus Serotype O Isolated from Bangladesh in 2013. *GenomeA.* 2(1):e01253-13. doi:10.1128/genomeA.01253-13.
81. Alam SMS, Amin MR, Sultana M, Rahman MZ, and Hossain MA. 2013. Antigenic heterogeneity of capsid protein VP1 in foot-and-mouth disease virus (FMDV) serotype Asia1. *Adv. Appl. Bioinf. Chem.*, 6: 37-46, doi.org/10.2147/AABC.S49587.
82. Adnan N, Sultana M, Islam OK, Nandi SP, and **Hossain MA.** 2013. Characterization of Ciprofloxacin resistant Extended Spectrum β -Lactamase (ESBL) producing *Escherichia* spp. from clinical waste water in Bangladesh. *Adv. Biosci. Biotechnol.*, **4**: 15-23. doi: 10.4236/abb.2013.47A2003.
83. Nandi SP, Sultana M and **Hossain MA.** 2013. Prevalence and characterization of multidrug-resistant zoonotic *Enterobacter* spp. in poultry of Bangladesh. *Foodborne Path. Dis.*, **10**: 420-427.
84. Nandi SP, Rahman MZ, Momtaz S, Sultana M and **Hossain MA.** 2013. Emergence and Distribution of Foot-and-Mouth Disease Virus Serotype A and O in Bangladesh. *TBED.* doi: 10.1111/tbed.12113.

85. Ahmed S, Hossain MI, Hossain, T, Islam KMR, Uddin B, Rahman MB and **Hossain MA**. 2013. The central cattle breeding and dairy farm, Bangladesh waste contributes in emergence and spread of aminoglycoside-resistant bacteria. *Adv. Biosci. Biotechnol.* **4**: 278-282.
86. Ullah MR, Hossain MJ and **Hossain MA**. 2013. The Influence of a New-Synthesized Complex Compounds of Ni (II), Cu (II), and Fe (II) Containing a Ligand having Tetraoxotetrahydrazin Moity on Some Pathogenic Bacteria. *IOSR-J. Appl. Chem.*, **4**: 51-59.
87. Rupa FA, Sultana M, Inatsu Y, Bari ML and **Hossain MA**. 2012. Prevalence of Antibiotic Resistant Bacteria on Tomato Surfaces and Effectiveness of Disinfectants in Reducing the Microbial Load. *J. Food Sci. Eng.*, **2**: 293-300.
88. 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 J. Microbiol. Biotechnol.*, **28**: 827-834.
89. Sultana M and **Hossain MA**. 2012. Pollution of Antibiotics and Resistant Bacteria: Prospective Studies on Spreading of Antibiotics Resistance, Food Hygiene and Aquaculture in Bangladesh. *Int. Conf. Pro. Green Chemistry for Sustainable Development*. July 14, 2012, ISBN: 978-984-33-5307-8
90. Bari ML, **Hossain MA**, Isshiki K and Ukuku D. 2011. Behavior of *Yersinia enterocolitica* in foods, *J. Path.* 2011:1-13.
91. Akter, S, Rafiq-Un-Nabi, Rupa, FA, Bari,ML and **Hossain MA**. 2011. Isolation and identification of antibiotic resistant bacteria in fresh vegetables and its plasmid profile on resistance. *Agri Food Anal. Bacteriol.*, **1**(2): 140-148.
92. Mahmud MS, Bari ML and **Hossain MA**. 2011. Prevalence of *Salmonella* Serovars and Antimicrobial Resistance Profiles in Poultry of Savar Area, Bangladesh. *Foodborne Path. Dis.* **8**,1-8.
93. Anirban J, Bonny TS and **Hossain MA**. 2011. Arsenic Poisoning Alters the Composition of Skin Microbial flora of Human. *Res. J. Microbiol.*,**6**: 524-533.
94. Shil NC, Mahmud MS, Amin MM and **Hossain MA**. 2011. Comparative Analysis of Haemagglutination Inhibition Antibody Production Against Three Lentogenic Newcastle Disease Virus Vaccines in Broiler Chicks, *Bangladesh J. Microbiol.* **28**(1), 41-43.
95. Uemura T and **Hossain MA**. 2011. Efforts to risk-off in security, hygiene and safety of food-past, present and future, *J. Asiat. Soc. Bangladesh*, **37**(2), 449-453.

96. Bonny TS, Bari ML and **Hossain MA**. 2011. Salmonellosis in Poultry of Bangladesh: It's Seroprevalence, Drug resistance and Zoonoses, *J. Asiat. Soc. Bangladesh*, **37**(2), 47- 55.
97. Amin R, Jesmin, Jamil H and **Hossain MA**. 2009. In silico Analysis of Human Telomerase Reverse Transcriptase (*hTERT*) Gene: Identification of a Distant Homolog of Melanoma Antigen Family Gene (MAGE). *Cancer Informatics*. **7**: 171-181.
98. **Hossain MA** and Peltz SW. 2009. Eukaryotic release factor 1 affects +1 and -1 ribosomal frameshifting in HeLa cells. *Int. J. Bio. .Chem.* **3**(1): 35-41.
99. **Hossain MA**, Ahmed MI and Karim MM. 2008. Bird Flu, the hanging threat for human-it's risk assessment and containment. *Bangladesh J. Microbiol.* **25**: 1-8.
100. **Hossain, M.A.**, Alim S.R., Kinoshita, T., Wakamiya, T. and Nakajima, T. 2007. Calreticulin- a Ca^{2+} binding protein binds. *Bangladesh J. Med. Sci. Sept.* **13**: 100-6.
101. Talukder AA, **Hossain MA**, Yamada M and Ishihama A. **2006**. Nucleoids dynamic in *Escherichia coli*: A growth phase dependent process. *Bangladesh J. Microbiol.* **23**(2), 81-88.
102. **Hossain MA**, Corzo G and Nakajima T. 2001. Identification and characterization of Na^{+} channel blocker spider peptide toxin binding-protein from crop pest *Spodoptera litura*. *FASEB J.* **15**, 535.
103. Islam MS, **Hossain MA**, Khan, SI, Khan MNH, Sack RB, Albert MJ, HuqA and Colwell RR.**2001**. Survival of *Shigella dysenteriae* Type 1 on fomites. *J. Health Popul Nutr.***19**: 177-182.
104. Alim SR, **Hossain MA**, Chowdhury EK and Kusuda K. 2001. G1 antigen- a cell surface immunoprotective 96kDa glycoprotein from virulent fish pathogen, *Enterococcus seriolicida*, its purification and characterization. *Lett. Appl. Microbiol.* **32**: 357-361.
105. **Hossain MA**, Alim SR, Hossain A and Chowdhury EK. 2000. Characterization of agglutination reaction inhibitory factor present on the cell surface of fish pathogenic bacteria *Enterococcus seriolicida*. *J.Biochem.Mol.Biol & Biophys.* **4**: 337-341.
106. **Hossain MA**, Murayama N, Oka T, and Nakajima T. 2000. Evidence of $[Ca^{2+}]$ elevation by anti-calreticulin immunoreactive protein in neurons. *Neurosci. Res.* **36**: 285-290. (**IF: 2.04**)
107. Chowdhury EK, Howlader ZH, Alim SR, Shekhar HU, **Hossain MA** and Misono M. 1998. Occurrence of a NAD^{+} dependent l-serine dehydrogenase in *Pseudomonas putida* E23 isolated from soil. *Dhaka Uni J. Biol.Sci.* **7**:155-162.

108. **Hossain MA**, Asadulghani and Rahim KA. 1998. Purification and properties of extracellular metalloprotease from *Bacillus thuringiensis*. *J. Biochem. Mol. Biol. & Biophys.* **1**: 241-246.
109. Shekhar HU, Ali MM and **Hossain MA**. 1997. Studies on extracellular amylase from locally isolated mosquito pathogenic *Bacillus sphaericus*. *Bangladesh J. Microbiol.* **14**: 17-23.
110. **Hossain MA**, Ahmed S and Hoque S. 1997. Abundance and distribution of *Bacillus thuringiensis* in the agricultural soil of Bangladesh. *J. Invertebr. Pathol.*, **70**:221-225.
111. Shekhar HU, Sarker A and **Hossain MA**. 1996. Studies on extracellular protease from *Bacillus thuringiensis* Sy8. *Bangladesh J. Biochem.* **2**: 61-65.
112. **Hossain MA**, Molleck S, Shehkor HM and Akteruzzaman S. 1996. Antibacterial activities of a locally isolated *Bacillus polymyxa* AH-1. *Dhaka Uni. J. Biol. Sci.* **5**: 87-89.
113. **Hossain MA**, Molleck S and Akhteruzzaman S. 1995. Isolation, identification and characterization of *Bacillus polymyxa* strain active against gram negative bacteria. *Dhaka Uni. J. Biol. Sci.* **4**: 193-196.
114. Bashar MA, Fatema B and **Hossain A**. 1994. The active ingredient in pea-pollens responsible for the initiation of oogenesis and development of eggs in *Bruchus pisorum* (Coleoptera: Bruchiodae). *Ann. Entomol.* **12**: 17-19.
115. Alam R, Rahman M, **Hossain A** and Rahim KA. 1994. Kinetic and inhibition studies on propionate induced isocitrate lyase from *Pseudomonas aeruginosa*. *Dhaka Uni. J. Biol. Sci.* **3**: 165-172.
116. **Hossain A**, Shah, SK, Aktaruzzaman, Kabir Y and Rahman M. 1994. Studies on extracellular protease activity from locally isolated *Bacillus thuringiensis* strain. *Dhaka Uni. J. Biol. Sci.* **3**: 83-87.
117. Sumana I, **Hossain A**, Hoque MM, Rahman M and Khan H. 1992. Isolation and characterization of *Bacillus thuringiensis* strains pathogenic to caterpillar and mosquito larvae. *Bangladesh J. Microbiol.* **9**: 79-85.
118. **Hossain A**, Tagashira M, Hagiwara K and Nakajima T. 1991. Specific binding protein to Joro spider toxin a postsynaptic glutamate blocker, a family of calreticulin? *Proc. Japan Aced.Ser B*, 203-209.

119. **Hossain A**, Hagiwara K, Kawai N and Nakajima T. 1991. A spider toxin binding protein from bovine brain: its purification and N-terminal amino acid sequence determination. *Chem.Pharm.Bull.* **29**: 3079-3061.
120. **Hossain A**, Miwa A, Tagashira M, Hagiwara K, Kawai N and Nakajima T. 1991. Antibody that blocks excitatory postsynaptic potential can identify 60K spider toxin binding protein (STBP-60). *Biomedical Res.* **12**: 291-295.
121. Ali S and **Hossain A**. 1989. Production of cellulase from agricultural wastes by *Aspergillus* species. *Bangladesh J. Microbiol.* **6**: 61-68.
122. Rahman T, Mandal R, **Hossain A** and Islam A. 1988. Variation in distribution of pigment producing bacteria with soil characteristics. *Dhaka Uni. Studies*, E. **3**: 23-29.
123. Hasan CM, Begum S, Islam SK, **Hossain A**, Rahman S and Rahman J. 1988. Antimicrobial activity of the leaves of *Eupatoriun anapana*. *Bangladesh J. Pathol.* **3**: 9-13.
124. Hasan CM, Islam SN, BegumK, Ilis M and **Hossain A**. 1988. Antibacterial activities of the leaves and stem barks of *Cassia alata* L. *Bangladesh J. Bot.* **17**: 135-139.
125. Rahman T, Haq I, Chowdhury N, **Hossain A** and Chowdhury AA. 1987. Antibacterial activity of culture broth of pigment producing soil bacteria. *Dhaka Uni. Studies*, E, **1**: 107-113.
126. **Hossain A**, Shahbuddin M and Rahman M. 1986. Levels of isocitrate lyase, malate synthase, malate ATP lyase and acetic thiokinase in *Pseudomonas aeruginosa* strain in different growth conditions. *Dhaka Uni. Studies*, E, **1**: 107-112.
127. **Hossain A**, Rahman KA, Rahman M and Rahman NN. 1984. Studies on physico-chemical properties of methioninase from *Pseudomonas aeruginosa*, *Bangladesh J. Biol. Sci.*, **11-13**:63-71.
128. Rahman M, Hasan QAKM, Shahabuddin M and **Hossain A**. 1984. Physico-chemical properties of isocitrate lyase from *Pseudomonas aeruginosa* strain PAO, *Bangladesh J. Biol. Sci.* **11-13**: 101-108.
129. **Hossain A**, Rahman NN and Rahman M. 1984. Metabolism of methionine in *Pseudomonas aeruginosa* strains PAO. *Dhaka Uni. Studies*, B, **XXXII**: 47- 53.

Book Chapter Publications

1. Sultana M, Sanyal SK, and **Hossain MA**. 2015. Arsenic Pollution in the Environment- role of microbes in its bioremediation. In: *Uncovering New Methods for Ecosystem Management through Bioremediation*. IGI Global, E-Editorial Discovery
2. Cordero, M, **Hossain, MA**, Espinoza, N., Obregon, N., Roman, M., Navarro, S., Lina, L., Corzo, G., and Villegas, E (2016) In Spider Venoms, Toxonology, pp 405-418. Springer (Feb., 24, 2016)
3. Akter, S, Siddique, MA, Alam ASMRU, Sultana, M. and Hossain, MA (2019) Coordination of Molecular Techniques and Advanced Bioinformatics Tools for Analyzing Viral Evolutionary Distance with an Emphasis on Foot-And-Mouth Disease Virus (FMDV) Serotype O. Book Title: Trends in Biochemistry and Molecular Biology, Edited by Hossain U. Shekhar, Publisher Nova. (In press)

Manuscript under Review

1. Sultana, FS., Saha, O., Sultana, M., and **Hossain, MA** (2020) Circulation of Multidrug Resistant *Salmonella enterica* Kentucky ST198 in Poultry Farms of Bangladesh. *Frontiers Public Health*, under review.
2. Saha, O., Nadira Naznin Rakhi, NN., Sultana, A., M. Hoque, MN., Islam, I., and **Hossain, MA.**, Rahman, MM. (2020) Severe Acute Respiratory Syndrome Coronavirus-2, a newly emerged etiological agent of the pandemic disease coronavirus disease 2019 (COVID-19): Outbreaks, Diagnostics and Containment's. *Travel Medicine and Infectious Disease*
3. Saha, O., Asaduzzaman, M., Islam, MA., Nasrin, N., Sultana, M., and Hossain, **MA** (2020) Emergence of multi-drug resistant *Salmonella enterica* serovar Typhi and Paratyphi A with Reduced susceptibility to Azithomycin in Bangladesh. Submitted *SN Comp.Clinical Med*.

Abstract Publication and Participation in International Conference

1. Hoque MN, Istiaq, A, Clement, R, Sultana, M, Crandall, KA, Siddiki, AMAMZ, M Anwar Hossain (2019) Characterization of microbiomes associated with bovine mastitis by metagenomic deep sequencing. ASM microbes Conf. 2019, June 20-24, San Francisco, USA.
2. Hossain, MA. (2019) Foot-and-Mouth Disease: Global Scenario and Asia Perspective. ICESMT-2019, Baramati, India, February 7-9, 2019.

3. Siddique, MA., Ali, MR., Alam, ASMRU., Ullah, H., Rahman, A., Chakrabarty GenomeA, RP., Amin, MA., Nandi, SP., Akhter, S., Shill, KD., Momtaz, S., Sultana, M., Hossain, MA (2018) Emergence of Two Novel Sub-lineages Ind2001BD1 and Ind2001BD2 under circulatory O/ME-SA topotype of Foot-and-Mouth Disease Virus in Bangladesh. ASM- 2018, USA.
4. Amin, MA., Ali, MR., Alam, ASMRU., Ullah, H., Siddique, MA., Momtaz, S., Sultana, M., Hossain MA (2018) Complete Genome of Foot-and-Mouth Disease Virus Serotype Asia1 isolated from Bangladesh reveals Capsid Protein Heterogeneity with vaccine strain IND 63/72. ASM- 2018, June 7-11, USA.
5. Rakhi, NN., Jahan, I., Hasan, MS., Sultana, M. and Hossain, MA. (2018) Molecular characterization of integrin class I in carbapenem resistant *Pseudomonas aeruginosa* clinical isolates, 10th AFOB regional symposium, Dhaka, Bangladesh.
6. Rahman, KMJ., Istiaq, A., Shuvo, SR., Diba, F., Siddique, A., Hossain, MA., and Sultana, M.(2018) Co-existence of arsenic and antibiotic resistance genes revealed in complete genome profile of arsenite oxidizing *Achromobacter xylosoxidans* BHW 15, 10th AFOB regional symposium, Dhaka, Bangladesh.
7. Saha, O., Momtaz, S., Sultana, M., and Hossain, MA. (2018) Investigation of the presence of *Escherichia coli* strain 0157 in poultry samples of Bangladesh, 10th AFOB regional symposium, Dhaka, Bangladesh.
8. Alam, ASMRU., Ali, MR., Amin, MA., Siddique, MA., Ullah, H., Sultana, M. and Hossain, MA. (2018) molecular Characterization of Foot-and- Mouth Disease Virus in Bangladesh from 2012 to 2016, 10th AFOB regional symposium, Dhaka, Bangladesh.
9. Sultana, M., Siddique, MA., Rahman, A., and Hossain, MA. (2017) Genomics and proteomics of foot-and-mouth disease virus circulating in Bangladesh. Int. Conf. on Bioinformatics and Biostatistics for Agriculture Health and Environment. P 38, 20-23 Jan. 2017, Rajshahi, Bangladesh.
10. Rahman, A., Alam, SMB., Hossain, S., Sultana, M. (2017) Visualization and Exploration of New Genotypes Using FMDV Genotyping Tool. P11, p996 20-23 Jan. 2017, Rajshahi, Bangladesh.

11. Sultana, M., Ullah, H., Siddique, MA., Rahman, A., Towhid, ST., and Hossain, MA. 2016. Molecular Phylogeography of Foot and Mouth Disease Virus in Bangladesh. ASM, Boston. June 16-20, 2016.
12. Sultana, M., Bashar, S., Ahmed, Y., Siddique, TA., Khan, M., and Hossain, MA. 2016. Antibiotic Resistance Scenario in Bangladesh; Mechanism and Ecological Impact. ASM, Boston. June 16-20, 2016.
13. Siddique MA, Ullah H, Chakrabarty RP, Sultana M and **Hossain MA**. 2015. Foot-and-Mouth Disease in Bangladesh: Epidemiology and Genome Analysis. Submitted in 115th General Meeting, American Society for Microbiology (Control/Tracking Number: 15-A-2968-GM-ASM).
14. Bashar S, Sanyal SK, Sultana M and **Hossain MA**. 2015. Integron Class 1 Cassette-Associated Metallo β -lactamase (M β L) Gene in *Pseudomonas stutzeri* Isolated from Diabetic Foot Infected Patient. Submitted in 115th General Meeting, American Society for Microbiology (Control/Tracking Number: 15-A-3029-GM-ASM).
15. Hossain A, Sanyal SK, Siddique MA, Sultana M and **Hossain MA**. 2015. Surveillance of White Spot Syndrome Virus (WSSV) Load in Cultured Shrimp of Bangladesh. Submitted in 115th General Meeting, ASM.
16. Chakrabarty RP, Shehreen S, Akter, S, Chowdhury EK, Sultana M and **Hossain MA**. 2015. Fluroquinolone Antibiotics Resistance Mechanism in Enterobacteriaceae Isolated from Clinical and Poultry Samples in Bangladesh. Accepted for presentation in 6th Congress of European Microbiologists (FEMS) to be held in Netherlands (Ref. No.: FEMS-1252).
17. Hossain A, Siddique MA, Sanyal SK, Nandi SP, Sultana M and **Hossain MA**. 2015. Real-Time PCR Based Quantification of White Spot Syndrome Virus Load in Cultured Shrimp with Observed Environmental Risk Factors. Accepted for presentation in 6th Congress of European Microbiologists (FEMS) to be held in Netherlands.
18. Siddique MA, Ullah H, Rahman A, Chakrabarty RP, Sanyal SK, Sultana M and **Hossain MA**. 2015. Foot-and-Mouth Disease Virus in Bangladesh-Genomic Analysis and Vaccine Failure. Presented in International Conference of Biotechnology in Health and Agriculture (ICBHA) 2015 organized by Global Network of Bangladeshi Biotechnologist (GNOBB) held in Nabab Nawab Ali Chowdhury Senate Bhaban, University of Dhaka, Dhaka 1000, Bangladesh.

19. Ullah H, Siddique MA, Sultana M and **Hossain MA**. 2014. Distribution and Prevalence of Foot-and-Mouth Disease Virus in Bangladesh. *SLAYS-IFS Joint Symposium, Sri Lanka, Nov 13-14, 2014*
20. Naeem N, Mukharjee SK, Sultana S, Sultana M and **Hossain M A**. 2014. Screening of Phenotypic and Genotypic Extended Spectrum β -Lactamase (ESBL) Producing Enterobacteriaceae from Clinical Liquid Waste in Bangladesh. *ICAAC-2014, ASM, September 5-9, Washington DC, USA*.
21. Momtaz S,UllahH, SiddiqueMA, RahmanA, NandiSP, SultanaM and **Hossain MA**. 2014. Foot-and-Mouth Disease in Bangladesh: Circulatory Types and Vaccine Candidates. *IUMS-2014, Montreal, Canada, July 27-August 1*.
22. Hossain A, Nandi SP, Siddique MA and **Hossain MA**. 2014. Prevalence of White Spot Syndrome Virus (WSSV) in Coastal Region Shrimp Farms in Bangladesh. *114th General Meeting, ASM: May 17 - 20, 2014, Boston, Massachusetts, USA*.
23. Sultana M, Bilkis R, Nandi SP and **Hossain MA**. 2013. Emergence of Multidrug Resistant Zoonotic *Salmonella* in Poultry of Savar, Bangladesh. *4th ASM Conference on Salmonella: The Bacterium, the Host and the Environment: October 5-9 2013, Boston, Massachusetts, USA*.
24. Nandi SP, Rahman MZ, Momtaz S, Sultana M and **Hossain MA**. 2013. Emergence and Distribution of Foot-and-Mouth Disease Virus (FMDV) subtypes during recent outbreaks in Bangladesh- **accepted** by *Federation of European Microbiological Societies (FEMS), in Fifth Congress of European Microbiologist: July 21-25, 2013; Liepzig, Germany*.
25. Sultana M, Adnan N, Islam OK, Nandi SP and **Hossain MA**. 2013. Ciprofloxacin resistance in clinical waste water (CWW) isolates of extended spectrum β - lactamase (ESBL) producing *Escherichia* spp. from Bangladesh. *Federation of European Microbiological Societies (FEMS), in Fifth Congress of European Microbiologist: July 21-25, 2013; Liepzig, Germany*.
26. Islam, M.A., Haque, E.M., Muktadir, M.G., Chowdhury, M.M.I., Kamal, M.M., **Hossain, MA.**, Kuurosaki, Y., and Yasuda, J. 2013. Isolation and Molecular Detection of Foot-and-Mouth Disease Viruses of the 2012-2013 Outbreak, Circulating in Bangladesh. CARES, Dhaka, Bangladesh, *Int. Conf. Biotechnol* May 25-26.

27. Sultana, M., Naeem, N., Sultana, F., Nandi, S.P. and **Hossain, MA**. 2013. Antibiotics Pollution and Occurrence of Multi-Drug Resistant (MDR) Bacteria in Environments of Bangladesh. CARES, Dhaka, Bangladesh, Int. Conf. Biotechnol. May 25-26.
28. Nandi, S.P., Sultana, M. and **Hossain, MA** 2013. Prevalence of Multidrug Resistant Zoonotic *Salmonella* and *Enterobacter* spp. in Poultry of Bangladesh. CARES, Dhaka, Bangladesh, Int. Conf. Biotechnol May 25-26.
29. Nandi, S.P., Sultana, M., Mahmud, MS., **Hossain, MA**. 2012. Molecular characterization of Multidrug Resistant- Extended Spectrum β -Lactamase producing Zoonotic Enterobacter spp. from Poultry of Bangladesh. *Asian Food Security Association (AFSA) Ann. Conf.* Sept. 15-17, 2012, Osaka Prefecture University, Japan.
30. Sultana, M., Mahmud, MS., Alam, SMA, **Hossain, MA**. 2012. Emergence of Multidrug Resistant Zoonotic *Salmonella* from Poultry of Savar, Bangladesh. *Asian Food Security Association (AFSA) Ann. Conf. Sept.* 15-17, 2012, Osaka Prefecture University, Japan
31. Alam, SMA, Amin, MR., Sultana, M., and Hossain, MA. 2012. Antigenic Variation of Capsid protein VP1 of Foot and Mouth disease Virus Prevalence in South Asian regions. *AFSA Ann. Conf.* Sept. 15-17, 2012, Osaka Prefecture University, Japan
32. Rahman, A, Ashraf, MA, Alam, SMA, Khatun, F., Hossain, S., Hossain, M., Zaman, F., Sultana, M., **Hossain, MA**. 2012. FMD Virus Genotyping Tool. . *AFSA. Ann. Conf.* Sept. 15-17, 2012, Osaka Prefecture University, Japan
33. Sabbir, SM, Amin, MR, Jesmin, Nur-E-Kamal and **Hossain, MA** 2012. Antigenic variation occurred in Foot and Mouth disease virus major capsid protein VP1 of asia1 in different countries in south asian region for past twelve years. *FAO/OIE Global Conference on Foot and Mouth disease control*, June 27-29, Bangkok, Thailand
34. Mahmud, MS, Sultans, M. and **Hossain, MA** 2012. Prevalence and molecular Characterization of *Salmonella* isolates in poultry of Savar, Bangladesh. *AMS 2012*, San Francisco, USA, June 16-19
35. Mahmud, MS, Sultans, M. and **Hossain, MA**. 2011. Salmonella in poultry of Bangladesh: its prevalence, antibiotic resistance and zoonoses, *International Conference on Science, Asiatic Society*, September 27-29, Dhaka.

36. Mahmud, MS, Sultans, M. and **Hossain, MA. 2011.** Prevalence and molecular characterization of *Salmonella* isolates in poultry of Savar, Bangladesh. 52nd Association of Microbiology of India (AMI), November 3-6, Panjab University, India.
37. Akter, F, Amin, MR, Osman, KT, Anwar, MN, Karim, MM and **Hossain, MA. 2010.** Increasing frequency of ciprofloxacin-resistant *Escherichia coli* in hospital wastewater of Bangladesh and prediction of its mechanism of resistance, 5th Int. Conf. on Microbiology of Food, Health & Environment: Problems and Prospects in Developing Countries, 26-28 December, 2010, Bangladesh.
38. Mahmud, M.S, Bonny, T.S, Bari, M.L and **Hossain, MA. 2010.** Prevalence of *Salmonella* Serovars and antimicrobial resistance profiles in poultry of Savar area, Bangladesh, 5th Int. Conf. on Microbiology of Food, Health & Environment: Problems and Prospects in Developing Countries, 26-28 December, 2010, Bangladesh.
39. Sabbir, SMA, Amin, RM, and **Hossain, MA. 2010.** In Silico analysis of structural and functional features of DUF 2726 family member proteins, 5th Int. Conf. on Microbiology of Food, Health & Environment: Problems and Prospects in Developing Countries, 26-28 December, 2010, Bangladesh.
40. Akhter, F., Osman, KT., Amin, R., Adnal, N. and **Hossain, MA. 2008.** The prevalence and the resistance mechanism of fluoroquinolones in bacteria isolated from Bangladesh. Ehrlich II -2nd World Conference on Magic Bullets, Germany, Oct 3-5.
41. Osman, K.T, Anwar, MA. and **Hossain, MA. 2007.** Impact of hospital liquid waste discharge in the development of antibiotics resistance in the environmental bacteria. 1st Int. Biotechnol. Conf. Bangladesh
42. **Hossain, MA.**, Welch, E., Dougherty, PJ. and Peltz WS. **2004.** 9th RNA meeting, Madison, Wisconsin, p711.
43. Alim, SR., **Hossain, MA.**, Chowdhury, E.K. and Kusuda, R. **2001** 10th European Congress on Biotechnology, Madrid, Spain.
44. **Hossain, MA.**, Corzo, G and Nakajima, T. **2001.** Experimental Biology, Orlando, Florida, USA.
45. Alim, SR., **Hossain, MA.**, Chowdhury, E.K. and Kusuda, R. **2000.** 15th FAOBMB Symposium, Beijing, China, p-21.

46. **Hossain, MA.**, Corzo, G. and Nakajima, T. **2000**. *15th FAOBMB Symposium*, Beijing, China, p-84.
47. **Hossain, MA.**, Corzo, G and Nakajima, T. **2000**. *18th International Congress of Biochemistry and Molecular Biology*, Beyond the Genome, Birmingham, UK.
48. **Hossain, MA.** and Nakajima, T. **1999**. *14th FAOBMB Symposium*, Dunedin, New Zealand. p-34.
49. **Hossain MA. et al.** **1999**. Symposium: *Advances in Ion Channel Research*, San Francisco, USA. p-46.
50. Rumi, S., **Hossain, MA.** and Kawai, K. **1998**. *8th FAOBMB congress*, Malaysia.p-28.
51. Hossain, A., Rumi.S. and **Hossain MA.** **1998**. *8th FAOBMB congress*, Malaysia. P-84.
52. **Hossain, MA. et al.** **1996**. *6th FAOBMB Conf.*, Tokoshima, Japan.
53. Rahman, M., **Hossain, MA.**, Chowdhury, EH., Banu, .B. and Khan, N. **1995**. *4th Int. Symp. on Mol. Biol. research in Agriculture, Health and Environment*, Lahore, Pakistan.
54. **Hossain, MA.et al.** **1995**. *4th Int. Symp. On Protein structure function relationship*, Karachi, Pakistan.
55. **Hossain, MA. et al.** **1995**. *Int. Symp. Plant Tissue Culture*, Dhaka, Bangladesh.
56. **Hossain MA.** **1993**. *2nd Canberra B.t. Conference*, Australia.
57. **Hossain MA. et al.** **1991**. *7th Int. Symp. On Neuroceptors, ion channel and brain-function, mol. biol. and toxicol.* Tokyo, Japan.

Contributions and Presentations in National Academic Conferences:

More **than 100 abstract published** and presented in different national academic conferences.

Invited Lecture/ Keynote Talk/Plenary talk

1. Hossain, MA (2021) Strategic Assessment of Covid-Long Covid Pandemic in Bangladesh- Perspective for Sustainability. Bangladesh Association for the Advancement of Science, 10 September, 2021.
2. Hossain, MA (2021) Foot-and-mouth disease in Bangladesh: Current scenario and containment. International Conference on Science and Technology for Celebrating the Birth

- Centenary of Bangabandhu (ICSTB-2021), BCSIR, 11-13 March 2021 (Keynote talk).
3. Hossain, MA (2021) Foot-and-Mouth Disease Scenario in Bangladesh: Vaccine Failure and Remedy. 2nd ICAL 2021, www.icalsbtu.org (Keynote talk).
 4. Hossain, MA. (2019) Foot-and-Mouth Disease: Global Scenario and Asia Perspective. ICESMT-2019, Baramati, India, February 7, 2019 (**Keynote talk**)
 5. Hossain, MA. (2018) Molecular characterization of Foot-and-Mouth Disease Virus in Bangladesh from 2012 to 2016, 10th AFOB regional symposium, Dhaka, Bangladesh.
 6. Hossain, MA (2017) Progressive control pathway for FMD: success and failure in achieving the target control program in Bangladesh, 14th Ann. Sci. Conf. CVASU, April 1-2, 2017.
 7. Hossain, MA (2016) Foot-and-Mouth Disease: Current Scenario in the Asia and in Bangladesh. 3rd Regional Conference on Biosensors, Biodiagnostics, Biochips and Biotechnology. April 20-22, AIMST University Campus, Malaysia.
 8. Hossain, MA (2016) Foot and Mouth Disease Virus Types in Bangladesh: Epidemiology and Prevention Strategies. 2nd International South Asian Biotechnology Conference 2016 on Biotechnology for Sustainable Development. Dhaka University, Dhaka, Bangladesh.
 9. **Hossain, M.A.** (2014) Foot-and-Mouth Disease in Bangladesh: Circulatory Types and Vaccine Candidates, 15 August, Animal and Plant Health Inspection Service (USDA APHIS), Plum Island, FADDL, USA.
 10. **Hossain, M.A.** (2014) Antibiotic Resistances in Bangladesh: The Current Scenario. **Keynote talk**, Bangladesh Society for Pharmaceutical Professionals. May 23, 2014.
 11. **Hossain, M.A.** (2012) Prevalence of Multidrug Resistant Zoonotic Bacteria in Poultry of Bangladesh. Asian Food Security Association (AFSA) Ann. Conf. Sept. 15-17, 2012, Osaka Prefecture University, Japan (**Keynote talk**).
 12. **Hossain, M.A.** (2011) Identification and characterization of a cell surface immunoprotective glycoprotein from fish pathogen: *Lactococcus garvieae* and efficacy of it as protective vaccine against Lactococcosis in fish. Organized by Department of Fisheries, Dhaka University and Fisheries department, Government of Bangladesh.
 13. **Hossain, M.A.** (2011) *Salmonella* in poultry of Bangladesh: its prevalence, antibiotic resistance and zoonoses, International Conference on Science, Asiatic Society, September 27-29, Dhaka (**Keynote talk**)

14. **Hossain, M.A.** (2011) Hospital liquid waste and its impact in environment pollution, Organized Faculty of Biological Sciences, Chittagong University. (**Keynote talk**)
15. **Hossain, M.A.** (2011) Anthrax in Bangladesh: prevention and cure, Organized by Department of Pharmacy, City University
16. **Hossain, M.A.** (2009) Hospital wastewater: its impact in antibiotics and resistant bacteria pollution in Bangladesh, Tohoku University, Japan
17. **Hossain, M.A.** (2002) Calreticulin –a Ca^{2+} binding protein involves in Ca^{2+} -signaling in glutamate receptor, UMDNJ, NJ, USA
18. **Hossain, M.A.** (1998) Calreticulin –a Ca^{2+} binding protein, Yokohama City University, Japan
19. **Hossain, M.A.** (1996) *Bacillus thuringiensis* a biopesticide SUNBOR, Osaka, Japan.

NCBI GenBank Publications: Total ~200

Complete Genome of Foot-and-Mouth Disease Viruses

1. Ullah H, Siddique MA, Sultana M and **Hossain MA.** 2014. Complete genome sequence of foot-and-mouth disease virus type A circulating in Bangladesh. Accession Number-KJ754939.
2. Sultana M,Siddique MA, Momtaz S, Rahman A, Ullah H, Nandi SP and **Hossain MA.** 2014. Complete Genome Sequencing of Foot-and-Mouth Disease Virus Serotype O Isolated from Bangladesh in 2013. Accession Number-KF985189.
3. Ali, MR., Rubayet Ul Alam, ASM., Al Amin, M., Ullah, H., Siddique, MA., Munawar Sultana, M., **Hossain, MA.** 2018. (Accession Number MF782478). Complete Genome Sequence of Foot-and-Mouth Disease Virus Serotype Asia1 Isolated from Bangladesh.

Complete genomes Bacteria

4. Saha,O., Rahman,MS., Islam,M.R., **Hossain,MA.** and Sultana,M.(2020), Charaterization of Multidrug resistance *Escherichia Coli*; NCBI BioProject: PRJNA659847; BioSample: SAMN15928328; Accession: JACVMT000000000.
5. Saha,O., Rahman,MS., Islam,MR., **Hossain,MA.** and Sultana,M.(2020), Charaterization of Multidrug resistance *Escherichia Coli*; NCBI BioProject: PRJNA659847; BioSample: SAMN15928329; Accession: JACVMS000000000.
6. Saha,O., Rahman,M.S., Islam,M.R., **Hossain,MA.** and Sultana,M.(2020), Charaterization of Multidrug resistance *Escherichia Coli*; NCBI BioProject: PRJNA659847; BioSample:

SAMN15928330; Accession: JACVMR000000000.

7. Saha,O., Rahman,MS., Islam,MR., **Hossain,MA.** and Sultana,M.(2020), De novo Genome Sequence of *Pasteurella multocida* type B; NCBI BioProject: PRJNA626386; BioSample: SAMN14639261; Accession: CP052764.
8. Saha,O., Rahman,M.S., Islam,M.R., Hossain,M.A. and Sultana,M.(2020), De novo Genome Sequence of *Pasteurella multocida* type B; NCBI BioProject: PRJNA626386; BioSample: SAMN14639262; Accession: CP052765.
9. Jahan,MI., **Hossain,MA.** and Sultana,M. (2020), The complete genome sequence of *Acinetobacter baumannii* DMC 32a; NCBI BioProject: PRJNA531439; BioSample: SAMN11357878; Accession: SRZJ000000000.
10. Jahan,MI., **Hossain,MA.** and Sultana,M. (2020), *Klebsiella pneumoniae* DMC-17a, complete genome sequence; NCBI BioProject: PRJNA590027; BioSample: SAMN13315560; Accession: WLUY000000000.
11. Jahan,MI., **Hossain,MA.** and Sultana,M. (2020), Complete genome sequence of *Klebsiella pneumoniae* DMC-19b; NCBI BioProject: PRJNA588974; BioSample: SAMN13262230; Accession: WKJE000000000.
12. Jahan,MI., Hossain,MA. and Sultana,M. (2020), Complete genome of *Acinetobacter baumannii*; NCBI BioProject: PRJNA531439; BioSample: SAMN11357878; Accession: SRZJ000000000.
13. Saha,O., Hossain,MA. and Sultana,M. (2020), Complete genome sequence of *Escherichia fergusonii* strain in Bangladesh; NCBI BioProject: PRJNA627862; BioSample: SAMN14688229; Accession: JABCUC000000000.
14. Shuvo,MSR., Istiaq,A., Hossain,MA. and Sultana,M. (2020), Whole genome sequence of arsenite oxidizing *Achromobacter xylosoxidans* BHW-15; NCBI BioProject: PRJNA448204; BioSample: SAMN08824771; Accession: PZMK000000000.

Metagenomes of Mastitis Microbiome

15. Hoque, MN., Istiaq, A., Clement, RA., Sultana, M., Crandall, KA., Siddiki, AZ., & **Hossain, MA.** (2019); Bovine milk Metagenome; NCBI BioProject: PRJNA529353, Accession: SRX5666834-SRX5666875.

Partial Sequence of White Spot Syndrome Virus

16. Hossain A, Nandi SP, Siddique MA, Sanyal SK, Sultana M and Hossain MA. 2014. Surveillance of White Spot Syndrome Virus in Farmed Shrimp of Southwest Coastal Regions in Bangladesh. (Accession Number KJ719075, KJ773998 - KJ774012, KJ817413 - KJ817422).

Full Sequence of Bovine Calreticulin

17. Hossain MA, Kusuda T and Nakajima T. 2001. Full length of bovine calreticulin (cDN A). DDBJ/EMBL/GenBank; Accession no AB067687; ID 20010801164352.32484.