

Curriculum vitae of
Professor Dr. Farzana Islam Rume
Department of Microbiology and Public Health
Faculty of Animal Science and Veterinary Medicine
Patuakhali Science and Technology University
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Born 02 of May 1979 in Chattogram (Bangladesh), citizen of Bangladesh.

Aim

Academic career in microbiology, immunology and public health field.

Areas of Interest (research)

Clinical and public health microbiology, immunomoproteomics, antimicrobial resistance, molecular diagnostics.

Areas of Interest (teaching)

Bacteriology, Virology, Immunology, Food hygiene, Public health.

Academic qualifications

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| 2012 - 2017 | PhD in Biological Sciences (Microbiology), Dhaka University, Dhaka, Bangladesh |
| 2007 - 2009 | MS in Biotechnology, Patuakhali Science and Technology University, Patuakhali, Bangladesh |
| 1998 - 2002 (Year of passing 2005) | DVM, Chittagong University, Chattogram, Bangladesh |

Current and previous positions held

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| Dec, 2018 – till now | Professor, Department of Microbiology and Public Health, Patuakhali Science and Technology University, Bangladesh. |
| 2014 - 2018 | Associate Professor, Department of Microbiology and Public Health, Patuakhali Science and Technology University, Bangladesh. |
| 2009 - 2014 | Assistant Professor, Department of Microbiology and Public Health, Patuakhali Science and Technology University, Bangladesh. |
| 2008 - 2009 | Lecturer, Department of Microbiology and Public Health, Patuakhali |

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| | Science and Technology University, Bangladesh. |
| 2005 - 2008 | Lecturer, Department of Animal Breeding and Genetics, Barisal Govt. Veterinary College, Barisal, Bangladesh. |
| 2012 | Chairman, Department of Microbiology and Public Health, Patuakhali Science and Technology University, Bangladesh. |
| 2017 – till now | Research Supervisor of MS in Microbiology and MS in Veterinary Public Health, Department of Microbiology and Public Health, Patuakhali Science and Technology University, Bangladesh. |
| Sep, 2018 to May, 2019 | Chairman, Department of Microbiology and Public Health, Patuakhali Science and Technology University, Bangladesh. |

Recently participated in conference/seminar/workshop/training

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| August 13-16, 2019 | Present a paper (Immunogenicity of the local anthrax vaccine strain in animal models) and attend International Veterinary Immunology Symposium (IVIS -2019), Seattle, WA, USA. |
| December 29, 2017 | Present a paper (Risks for cattle anthrax in Bangladesh: A case-control study), 30 th Annual conference 2017, Bangladesh Society of Microbiologists, Dhaka University, Bangladesh. |
| September 17-18, 2017 | Present a paper (Molecular Epidemiology of Anthrax in Domestic Animals of Bangladesh) and got 1st prize for poster presentation , 9 th One Health Bangladesh Conference, Dhaka, Bangladesh. |
| June 1-5, 2017 | Present a paper (Genetic Characterization of Bovine Anthrax in Bangladesh) and attend the ASM microbe-2017 conference, New Orleans, USA, a conference organized by American Society for Microbiology. |
| May 14-16, 2017 | Present a paper (Molecular characterization of <i>Bacillus anthracis</i> strains circulating in Bangladesh) in International Conference on Genomics, Nanotech and engineering-2017' (ICGNB 2017), North South University, Dhaka. |
| December 26-28, 2015 | International conference 2015, Bangladesh Society of Microbiologists, Dhaka University, Bangladesh. |
| October 27-30, 2015 | Present a paper (Investigation on <i>Bacillus anthracis</i> circulating in Bangladesh through the analysis of soil samples in areas at risk and imported animal feed) in 7th International Bacillus ACT 2015 Meeting, The Grand, New Delhi, India |

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| May 04-22, 2015 | Joint-Research and Training Program at Anthrax Reference Center of Italy and Department of Biotechnology and Vaccines, Istituto Zooprofilattico Sperimentale of Puglia and Basilicata, Italy. |
| November 20, 2014 to March 14, 2015 | Act as a Research Visiting Scholar at Henan Agricultural University, Zhengzhou, China. |

Research projects conducted individually or group

| No. | Project Title | Funding Authority | Project Period and Status |
|-----|--|--|---------------------------|
| 01. | Determination of Antimicrobial Resistance and Residues in Livestock and Poultry Food Products and Feed in Bangladesh. | Bangladesh Agricultural Research Council (BARC), Dhaka | July, 2018 to June, 2021 |
| 02. | Detection of milk adulterants and microbial quality evaluation in the raw and pasteurized milk sold in Barisal district of Bangladesh. | RTC research grants, Patuakhali Science and Technology University. | July, 2019 to June, 2020 |
| 03. | Prevalence of bacterial diseases and their antibiotic resistance status in chickens of Barishal district. | RTC research grants, Patuakhali Science and Technology University. | July, 2018 to June, 2019 |

Scholarship and grants

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| 2015 | BAS-USDA Fellowship for PhD research. |
| 2014 | Research grants from Comprehensive Disaster Management Programme (CDMP II) |

Academic and professional organizations

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| 2015 - date | Life Member of Bangladesh Society of Microbiologists |
| 2017 - date | Life Member of One World One Health-Bangladesh Initiative |
| 2017 - date | Life Member of Bangladesh Veterinary Association |

Experience in implementing project/research

| Title of the project/ research activity | Donor/ sponsor | Position in the project | Year | |
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| | | | From | To |
| 01. Determination of Antimicrobial Resistance and Residues in Livestock and Poultry Food Products and Feed in Bangladesh. | NATP-2, Bangladesh Agricultural Research Council (BARC), Dhaka | Principal Investigator (PSTU component) | 2018-2021 | |
| 02. Isolation of probiotic Lactobacillus from various types of meat and evaluation of its antibacterial activity against Staphylococcus spp. | Ministry of Science and Technology (MoST) | Principal Investigator | 2023- 2024 | |
| 03. Isolation of Lactobacillus from cow milk and assess their probiotic action against pathogen. | RTC research grants, Patuakhali Science and Technology University | Principal Investigator | 2023- 2024 | |
| 04. Epidemiology of mycoplasmosis in chickens in coastal region of Bangladesh | Ministry of Science and Technology (MoST) | Principal Investigator | 2022- 2023 | |
| 05. Evaluation of fecal contamination using MPN and TVC and assessment of cultural sensitivity pattern of microorganisms isolated from drinking water. | RTC research grants, Patuakhali Science and Technology University | Principal Investigator | 2022- 2023 | |
| 06. Isolation, identification, and risk factor assessment of mycotoxigenic fungi isolated from commercial animal feedstuff in Barisal, Bangladesh | RTC research grants, Patuakhali Science and Technology University | Principal Investigator | 2021- 2022 | |
| 07. Enhancement of shelf life of raw dairy milk by using modern chemicals and biopreservative | RTC research grants, Patuakhali Science and Technology University | Principal Investigator | 2020- 2021 | |
| 08. Detection of milk adulterants and microbial quality evaluation in the raw and pasteurized milk sold in Barisal district of Bangladesh | RTC research grants, Patuakhali Science and Technology University | Principal Investigator | 2019- 2020 | |

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| 09. Prevalence of bacterial diseases and their antibiotic resistance status in chickens of Barishal district. | RTC research grants, Patuakhali Science and Technology University | Principal Investigator | 2018- 2019 |
| 10. Phenotypic Characterization and Antibiotic Resistance Profiles of <i>Enterococcus</i> spp. in Broiler Poultry from Selected Farms in Barishal, Bangladesh | RTC research grants, Patuakhali Science and Technology University | Principal Investigator | 2024- 2025 |
| 11. Exploring the Prevalence and Antibiotic Resistance Profiles of <i>Enterococcus</i> spp. in animals in the Coastal Regions of Bangladesh | Ministry of Science and Technology (MoST) | Principal Investigator | 2024- 2025 |

Academic publishing and reviewing

Publications in last 5 years (Impact Factor Journals)

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| 2025 | Mousumi, I. J., Sayed A., Kayesh M.E.H., Rume F. I. Bacteriological assessment of water quality in Barishal, Bangladesh: potability testing and antibiogram profiling. <i>J Water Health</i> . 2025 Apr;23(4):450-460. doi: 10.2166/wh.2025.258. Epub 2025 Mar 11. |
| 2024 | Karim MR, Li J, Harun AB, Rume FI, Zhang L. Molecular characterization and zoonotic risk assessment of <i>Cryptosporidium</i> spp. in children and calves in Bangladesh. <i>One Health</i> . 2024;100692. IF: 5 (Q1). https://doi.org/10.1016/j.onehlt.2024.100692 . |
| 2023 | Li J, Karim MR*, Siddiki SHMF, Chen Y, Qin Z, Rume FI, Zhang L. Potential zoonotic transmission of <i>Giardia duodenalis</i> between children and calves in Bangladesh. <i>Transboundary and Emerging Diseases</i> , 2023, Article ID 8224587, 12 pages, 2023. IF: 4.521 (Q1). https://doi.org/10.1155/2023/8224587 |
| 2022 | Karim MR, Rume FI, Li D, Li J, Zhang L. First molecular characterization of <i>Enterocytozoon bienersi</i> in children and calves in Bangladesh. <i>Transboundary and Emerging Diseases</i> . 2022, 69(4): 1999-2007. IF: 5.005 (Q1). |
| 2021 | Karim MR, Li J, Rume FI, Sumon SMMR, Selim ASM, Hoda N, Zhang L. Occurrence and molecular characterization of <i>Cryptosporidium</i> spp. and <i>Giardia duodenalis</i> among captive mammals in the Bangladesh National Zoo. <i>Parasitology International</i> . 2021, 84 (2021): 102414. IF: 1.993 (Q2). |
| 2021 | Rume FI, Karim MR, Biswas PK, Yasmin M, Ahsan CR. Climate change and its influence on occurrence and distribution of Anthrax in Bangladesh. <i>International Journal of Infectious Diseases</i> . 2021, 101(S1): 411. IF: 12.074 (Q1). |
| 2020 | Karim MR, Rume FI, Rahman ANMA, Zhang Z, Li J, Zhang L. Evidence for zoonotic potential of <i>Enterocytozoon bienersi</i> in its first molecular characterization in captive mammals at Bangladesh National Zoo. <i>Journal of Eukaryotic Microbiology</i> . 2020, 67(4): 427-435. IF: 3.189 (Q3). |

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| 2020 | Rume FI, Karim MR, Ahsan CR, Yasmin M, Biswas PK. Risk factors for bovine anthrax in Bangladesh, 2010–2014: a case-control study. <i>Epidemiology and Infection</i> . 2020, 148(e67): 1-6. IF: 2.122 (Q2). |
| 2021 | Matubber, B. ., Rume, F. I. ., Hoque Kayesh, M. E. ., Rahman, M. M. ., Amin, M. R. ., Asgar, M. A. ., & Anower, A. M. . (2021). Antibiotic resistance and residue in chicken, cattle, buffalo and goat meats in different southern districts of Bangladesh. <i>Asian-Australasian Journal of Food Safety and Security</i> , 5(1), 19–26. https://doi.org/10.3329/aaifss.v5i1.55014 |
| 2021 | Reza, S. T., Ansari, W. K., Karim, M. R., Anower, A. M., & Rume, F. I. (2021). Tradition of raw milk consumption and its health impact among people living in the coastal regions of Bangladesh. <i>Asian-Australasian Journal of Bioscience and Biotechnology</i> , 6(1), 10–18. https://doi.org/10.3329/aaajbb.v6i1.54876 |
| 2019 | Islam, J., Rume, F. I., Liza, I. J., Chaudhary, P. K., & Anower, A. M.). Assessment of subclinical mastitis in milch animals by different field diagnostic tests in Barishal district of Bangladesh . <i>Asian-Australasian Journal of Bioscience and Biotechnology</i> , 4(1), 24–33. https://doi.org/10.3329/aaajbb.v4i1.64872 |
| 2018 | Mostary S, Hussain K, Hasan I, and Rume FI, 2018. Retrospective study of foot and mouth disease in cattle at Babugonj upazila of Barisal district. <i>Res. Agric. Livest. Fish</i> . 5 (1): 43-48. |
| 2018 | Hasan, A., Reza, A., Rume, F. I., Meher, M. M., Parvej, M. S., & Anower, A. M. (2018). Prevalence and Antibiotic Resistance Pattern of <i>Escherichia coli</i> Isolated from Raw Dairy Milk. <i>Turkish Journal of Agriculture - Food Science and Technology</i> , 6(9), 1108–1113. https://doi.org/10.24925/turjaf.v6i9.1108-1113.1788 |
| 2016 | Rume FI , Ahsan CR, Biswas PK, Yasmin M, Braun P, Walter MC , Antwerpen M, Grass G, Hanczaruk M. Unexpected genomic relationships between <i>Bacillus anthracis</i> strains from Bangladesh and Central Europe. <i>Infection, Genetics and Evolution</i> .30: 82-88. (Impact Factor – 2.88) |
| 2016 | Rume FI, Affuso A, Serrecchia L, Rondinone V, Manzulli V, Campese E, Pietro Di Taranto PD, Biswas PK, Ahsan CR, Yasmin M, Fasanella A, Hugh-Jones M. Genotype Analysis of <i>Bacillus anthracis</i> Strains Circulating in Bangladesh. <i>PLoS ONE</i> . 10 (2): 1-14 (Impact Factor – 2.806) |
| 2016 | Rume FI, Antwerpen M, Braun P, Biswas PK, Yasmin M, Grass G, Ahsan CR, Hanczaruk M. Genome sequence of <i>Bacillus anthracis</i> strain Tangail-1 from Bangladesh. <i>Genome Announcement</i> . 4 (4): e00748-16. (Impact Factor – 1.44) |
| 2015 | Karim MR, Dong H, Li T, Yu F, Li D, Zhang L, Li J, Wang R, Li S, Li X, Rume FI, Ning C. Predomination and new genotypes of <i>Enterocytozoon bieneusi</i> in captive nonhuman primates in zoos in China: high genetic diversity and zoonotic significance. <i>PLoS ONE</i> 10: e0117991. (Impact Factor – 3.534) |
| 2015 | Karim MR, Zhang L, Yu F, Wang R, Jian F, Dong H, Zhang S, Rume FI, Ning C, Xiao L. Multi-locus analysis of <i>Giardia duodenalis</i> from nonhuman primates kept in zoos in China: geographical segregation and host-adaptation of |

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| | assemblage B isolates. Infect. Genet. Evol. 30: 82-88. (Impact Factor – 3.264) |
| 2014 | Karim MR, Dong H, Yu F, Jian F, Zhang L, Wang R, Zhang S, Rume FI , Ning C, Xiao L. Genetic diversity in <i>Enterocytozoon bieneusi</i> isolates from dogs and cats in China: host specificity and public health implications. J. Clin. Microbiol. 52: 3297-3302. (Impact Factor – 4.232) |
| 2014 | Karim MR, Wang R, Dong H, Zhang L, Li J, Zhang S, Rume FI , Qi M, Jian F, Sun M, Yang G, Zou F, Ning C, Xiao L. Genetic polymorphism and zoonotic potential of <i>Enterocytozoon bieneusi</i> from nonhuman primates in China. Appl. Environ. Microbiol. 80:1893-1898. (Impact Factor – 3.952) |
| 2014 | Karim MR, Wang R, He X, Zhang L, Li J, Rume FI , Dong H, Qi M, Jian F, Zhang S, Sun M, Yang G, Zou F, Ning C, Xiao L. Multilocus sequence typing of <i>Enterocytozoon bieneusi</i> in nonhuman primates in China. Vet. Parasitol. 200:13-23. (Impact Factor – 2.545) |
| 2014 | Karim MR, Zhang S, Jian F, Li J, Zhou C, Zhang L, Sun M, Yang G, Zou F, Dong H, Li J, Rume FI , Qi M, Wang R, Ning C, Xiao L. Multilocus typing of <i>Cryptosporidium</i> spp. and <i>Giardia duodenalis</i> from nonhuman primates in China. Int. J. Parasitol. 44: 1039-1047. (Impact Factor – 3.404) |
| 2014 | Karim MR, Yu F, Li J, Li J, Zhang L, Wang R, Rume FI , Jian F, Zhang S, Ning C. First molecular characterization of enteric protozoa and the human pathogenic microsporidian, <i>Enterocytozoon bieneusi</i> , in captive snakes in China. Parasitol. Res. 113:3041-3048. (Impact Factor – 2.327) |

Publications in last 5 years (International Journals)

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| 2014 | Khan MSI, Rume FI , Chowdhury MMM, Begum MR, Karim MR. Occurrence of tuberculosis in rhesus macaque from Chittagong Zoo in Bangladesh: a public health concern. Chinese Journal of Zoonoses. 30(9), 106-109. |
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