Curriculum Vitae

Dr. Abul Kalam Azad

Associate Professor

Department of Microbiology,Jagannath University, Dhaka-1100

Bangladesh

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Career Goals

To develop an ambient teaching, learning and research environment where anyone can learn, teach and conduct research for the development of good human health system and ecological environment.

Academic History

Doctorate (Ph.D.) **2022**	Shimane University, Japan Theme: Role of Plasmalogen in the pathogenesis of Alzheimer's disease Supervisor: Prof. Atsushi Nagai
Master of Science **2010**	Department of Microbiology University of Dhaka, Bangladesh
Bachelor of Science **2009**	Department of Microbiology University of Dhaka, Bangladesh

Employment History

June 2022- till date	Associate Professor Department of Microbiology, Jagannath University, Dhaka-1100, Bangladesh Job description: Teaching different courses relating Microbiology to Undergraduate students and conducting research on the role of normal fish microbiota in the survival of a heavily contaminated environment
June 2016-June 2022	Assistant Professor Department of Microbiology Jagannath University, Dhaka-1100, Bangladesh Job description: Teaching different courses relating Microbiology to Undergraduate students and conducting research on the spread of antibiotic-resistant bacteria from humans to the environment
May 2013- June 2016	Lecturer Department of Microbiology Jagannath University, Dhaka-1100, Bangladesh Job description: Teaching different courses relating Microbiology to Undergraduate students and conducting research on the spread of antibiotic-resistant bacteria from humans to the environment
February 2013-May 2013	Scientific Officer Bangladesh Council of Scientific and Industrial Research (BCSIR) Dhaka-1205, Bangladesh Job description: Did routine microbiological quality tests and research on the microbial quality of food samples in the Dhaka city area
March, 2011 to January, 2013	Professor Nurul Afsar Khan Post Graduate Research Fellow Bangladesh Council of Scientific and Industrial Research (BCSIR) Dhaka-1205, Bangladesh Job description: Did routine microbiological quality tests and research on the microbial quality of food samples in the Dhaka city area

Awards

Awards	**Achieving Year**

Talent pool Scholarship in Primary School	1998
Talent pool Scholarship in Junior School	2001
Dean's Award for B.S. (Hons). (Faculty of Biological Sciences, University of Dhaka	2009
Outstanding performance Award for B.S. (Hons). (Department of Microbiology, University of Dhaka)	2009
Outstanding performance Award for M.S. Exam (Department of Microbiology, University of Dhaka)	2010
Professor Nurul Afsar Khan Post Graduate Research Fellowship	2011-2012
Japanese Govt. (MEXT) Scholarship	2017-2022

Grants

JnU Annual Research Allocation, Research Funding 2022-23	Field: Role of gut microbiome in the survival of fish species Role: Supervisor
Special Allocation project for the year 2016-2017 under the Ministry of Science and Technology	Field: Contamination of Buriganga river water with antibiotic-resistant bacteria Role: Co-project investigator

Technical Experience

- Determination of APP gene by conventional PCR method
- Analysis of different phospholipids by liquid chromatography-targeted multiplexed tandem mass spectrometry techniques.

- Quantification of protein level by Western blot and Immunohistochemistry technique
- Study of drug toxicity in the animal model
- Isolation and preparation of different organs of animal models by perfusion techniques
- Determination of reactive oxygen species by DCF-DA biochemical assay
- Isolation and identification of different bacteria from samples based on conventional and molecular technique
- Different statistical analyses, such as one-way ANOVA, PCA, OPLS-DA, etc.

Conferences Attended

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1. Abul Kalam Azad, Md. Ahsanul Haque, Abdullah Md. Sheikh, Harumi Osago, Hiromichi Sakai, Abu Zaffar Shibly, Shozo Yano and Atsushi Nagai. 'Development of a liquid chromatography tandem mass spectrometry method for the simultaneous quantification of multiple phospholipid species'. The Permanent poster exhibition, January 2019, school of medicine, Shimane University, Japan.

2. **Abul Kalam Azad,** Abdullah Md. Sheikh, Harumi Osago, Hiromichi Sakai, Shozo Yano, Makoto Michikawa, and Atshushi Nagai. 'Time-course analysis of ether lipids and ROS in Alzheimer's disease model mouse'. The 38th Annual Meeting of Japan Society for Dementia Research Conference-2019 (P20267), Tokyo, Japan.

3. **Abul Kalam Azad**, Abdullah Md. Sheikh, Shatera Tabassum, Ryota Okazaki, Shozo Yano, Makoto Michikawa, Abu Zaffar Shibly, Xiaojing Zhou, Garu A and Atsushi Nagai. 'Carboxylated Zn-phthalocyanine attenuates brain Aβ in AD model mouse'. The 39th Annual Meeting of Japan Society for Dementia Research Conference-2020 (P350), Nagoya, Japan.

4. Md. Ahsanul Haque, Abdullah Md. Sheikh, Harumi Osago, Hikomichi Sakai, **Abul Kalam Azad**, Mikako Tsuchiya, Makoto Michikawa and Atsushi Nagai. "Analysis of phospholipid species in AD model mouse brain by LC-MS/MS", The 37th Annual Meeting of Japan Society for Dementia Research Conference-2018 (J37-20611), Hokkaido, Japan.

5. **Abul Kalam Azad**, Sahana Parveen, Md. Shakir Uddin Ahmed and Md. Abdul Malek (2012). Occurrence of *Salmonella* sp. Isolated from raw beef in Dhaka City. Bangladesh Society of Microbiologist. Dept. of Microbiology, Chittagong University.

6. **Abul Kalam Azad**, Md. Shakir Uddin Ahmed, Md. Abdul Malek, Md. Ibrahim Miah and Sahana Parveen (2012). Prevalence of *Escherichia coli*. Isolated from raw beef in Dhaka City. Bangladesh Society of Microbiologist. Dept. of Microbiology, Chittagong University.

Publication History

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1. Islam, M. W., Shahjahan, M., Azad, A. K., & Hossain, M. J. (2024). Factors contributing to antibiotic misuse among parents of school-going children in Dhaka City, Bangladesh. *Scientific Reports*, *14*(1), 2318. https://doi.org/10.1038/s41598-024-52313-y

2. Wang, R., **Azad, A. K.**, Md. Sheikh, A., Tabassum, S., Naoki, O., Zhang, Y., Bhuiya, J., Yano, S., & Nagai, A. (2023). Carboxylated ZN-phthalocyanine attenuates brain AB in AD model mouse. *Journal of the Neurological Sciences*, *455*, 121472. https://doi.org/10.1016/J.JNS.2023.121472

3. Zhang, Y., Sheikh, A. Md., Tabassum, S., Kenichi, I., Zaffar Shibly, A., **Azad, A. K.,** Bhuiya, J., Wang, R., Fatema Binte, A., Yano, S., & Nagai, A. (2023). Effect of high-fat diet on cerebral pathological changes of cerebral small vessel disease in SHR-SP rats. *Journal of the Neurological Sciences*, *455*, 122471. https://doi.org/10.1016/J.JNS.2023.122471

4. Bhuiya, J., Shibly, A. Z., Md. Sheikh, A., Tabassum, S., Aritake, S., **Azad, A. K.,** Zhou, X., Zhang, Y., Yano, S., & Nagai, A. (2023). Analysis of time-dependent cerebrovascular changes in Alzheimer's disease model mice. *Journal of the Neurological Sciences*, *455*, 121373. https://doi.org/10.1016/J.JNS.2023.121373

5. Sharmin F, Hasan M, **Azad AK,** Islam MA (2023). Antibiotics sensitivity pattern of uropathogens among diabetic and non-diabetic pregnant women in Dhaka, Bangladesh. One Health Bull 2023; 3; 5. https://www.doi.org/10.4103/2773-0344.371403

6. Ahsanul Haque, M., Omori, N., Md. Sheikh, A., Yano, S., Osago, H., Mitaki, S., **Azad, A. K.,** Sakai, H., Michikawa, M., & Nagai, A. (2023). Analysis of the time-dependent changes of phospholipids in the brain regions of a mouse model of Alzheimer's disease. *Brain Research*, *1800*. https://doi.org/10.1016/j.brainres.2022.148197

7. Mazumder, L., Hasan, M. R., Fatema, K., Begum, S., **Azad, A. K.,** & Islam, M. A. (2023). Identification of B and T Cell Epitopes to Design an Epitope-Based Peptide Vaccine against the Cell Surface Binding Protein of Monkeypox Virus: An Immunoinformatics Study. *Journal of Immunology Research*, *2023*. https://doi.org/10.1155/2023/2274415

8. Shibly, A. Z., Sheikh, A. Md., Michikawa, M., Tabassum, S., **Azad, A. K.,** Zhou, X., Zhang, Y., Yano, S., & Nagai, A. (2022). Analysis of Cerebral Small Vessel Changes in AD Model Mice. *Biomedicines*, *11*(1), 50. https://doi.org/10.3390/biomedicines11010050

9. **Azad, A. K.,** Sheikh, A. M., Haque, M. A., Osago, H., Sakai, H., Shibly, A. Z., Yano, S., Michikawa, M., Hossain, S., Tabassum, S., Garu, A., Zhou, X., Zhang, Y., & Nagai, A. (2021). Time-Dependent Analysis of Plasmalogens in the Hippocampus of an Alzheimer's Disease Mouse Model: A Role of Ethanolamine Plasmalogen. *Brain Sciences*, *11*(12). https://doi.org/10.3390/brainsci11121603

10. **Azad, A. K.,** Kobayashi, H., Md. Sheikh, A., Osago, H., Sakai, H., Ahsanul Haque, M., Yano, S., & Nagai, A. (2021). Rapid identification of plasmalogen molecular species using targeted multiplexed selected reaction monitoring mass spectrometry. *Journal of Mass Spectrometry and Advances in the Clinical Lab*, *22*, 26–33. https://doi.org/10.1016/j.jmsacl.2021.09.004

11. Garu, A., Zaffar Shibly, A., Shiota, Y., Md Sheikh, A., Yano, S., Araki, T., Zhou, X., **Azad, A. K.,** & Nagai, A. (2021). *Age-Dependent Analysis of the Effects of Pueraria Decoction on Autonomic Nerve Activities using Head-Up Tilt Test*. *J Clin Trials*, 11(453), 1-7. https://www.researchgate.net/publication/349391278

12. Islam, F., Mamun, M. A. A., **Azad, A. K.,** Yamashoji, S., & Bari, M. L. (2020). Use of potato peel waste-a cost effective alternative substrate for the production of industrially useful α-amylase enzyme. *Journal of Agriculture, Food and Environment*, *01*(04), 133–137. https://doi.org/10.47440/jafe.2020.1420

13. Miah, M. I., **Azad, A. K.,** Sultana, S., & Malek, M. A. (2017). Optimization of a Starter Culture for the Production of Quality Yoghurt. *Bangladesh J Microbiol*, 34 (1), 27-31.

14. Mia, Z., **Azad, A. K.,** Miah, M. I., Tabassum, A., & Islam, M. A. (2017). PREVALENCE AND ANTIBIOTIC SUSCEPTIBILITY OF BACTERIAL PATHOGENS IN URINARY TRACT INFECTION OF HOSPITAL PATIENTS. *Jagannath University Journal of Life and Earth Sciences*, 3(1&2), 83-90.

15. **Azad, A. K.,** Rahman, H., Sagor, M. S., Rahman, M. M., Nahar, J., Islam, M. S., Miah, M. I., & Mia, Z. (2016). ANTIBIOTIC SUSCEPTIBILITY AND SALINITY TOLERANCE OF ESCHERICHIA COLI ISOLATED FROM WATER IN OLD DHAKA. *Jagannath University Journal of Life and Earth Sciences*, 2(1&2), 113-118.

16. Islam, M. M., Islam, M. S., **Azad, A. K.,** Alam, M. M., & Mia, M. Z. (2016). SERO PREVALENCE OF HEPATITIS B VIRUS (HBV) INFECTION AMONG STUDENTS OF A PUBLIC UNIVERSITY, DHAKA, BANGLADESH. *Jagannath University Journal of Life and Earth Sciences*, 2(1&2), 1-6.

17. Zahid, I., **Azad, A. K.,** Rahmatullah, M., & Begum, S. (2016). OPTIMIZATION OF CULTURE MEDIUM FOR THE PRODUCTION OF GLUCOAMYLASE BY ASPERGILLUS ORYZAE. *Jagannath University Journal of Life and Earth Sciences*, 2(1&2), 123-132.

18. **Azad, A. K.,** Ahmed, M. S. U., Malek, M. A., Miah, M. I., & Parveen, S. (2015). ANTIBIOTIC SUSCEPTIBILITY AND PLASMID PROFILING OF *Escherichia*

coli ISOLATED FROM RAW MEAT IN DHAKA. *Jagannath University Journal of Life and Earth Sciences*, 1(1), 50-59.

19. **Azad, A. K.,** Parveen, S., Ahmed, M. S. U., & Malek, M. A. (2012). Occurrence, Antimicrobial Resistance Pattern and Plasmid Profile of Salmonella spp. Isolated from Raw Beef Meat in Dhaka City. *Bangladesh J Microbiol*, 29 (1), 17-21.