

Ismat Jahan Anee

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Research Interest

Molecular Biology, Cell Biology, Aging, Host-Pathogen Interactions, Infectious disease, therapeutic drugs.

Education

Masters in Genetics & Molecular Biology (2018-2019)

University of Dhaka

CGPA 4.00 out of 4.00, Position: First

Bachelors in Zoology (2015-2018)

University of Dhaka

CGPA 3.93 out of 4.00, Position: First

Publications

2022

“The effect of RAD7 gene’s null mutation on single-cell aging”. Ismat Jahan Anee, Reza Md Shahjahan, Rowshan Ara Begum, Mohammad Shamimul Alam, Ashfaque Muid Khandaker. Microbial Bioactives.

<https://publishing.emanresearch.org/Journal/Abstract/microbbioacts-514307>

2021

“The role of probiotics on animal health and nutrition”; The journal of Basic and Applied Zoology, SpringerNature. Anee, I.J., Alam, S., Begum, R.A. et al. The role of probiotics on animal health and nutrition. JoBAZ 82, 52

(2021). <https://doi.org/10.1186/s41936-021-00250-x>

Conference Paper

2021

“The role of DNA repair genes on cellular aging.” Ismat Jahan Anee, Reza Md Shahjahan, Rowshan Ara Begum, Mohammad Shamimul Alam, Ashfaque Muid Khandaker. 22nd National Conference & AGM 2020. Zoological Society of Bangladesh & Department of Zoology, University of Dhaka.

Work Experience

Research Fellow, Bangladesh Council of Scientific and Industrial Research

2022

Received Professor Nurul Afsar Khan Post Graduate Fellowship. Working on Project “Development of Molecular Biomarker for Antibiotic Residue in Fish.”

Short Term Consultant at The World Bank

November 2021 – Present

Project 1. Natural Capital Valuation and Spatial Planning for Southwest Region of Bangladesh.

Project 2. Bangladesh 2022 Country Environmental Analysis: Institutional Analysis.

Project 3. Gender dimensions and identifying business case for tackling Abandoned, Lost and Discarded Fishing Nets (ALDFN) and discarded plastics in coastal areas in Bangladesh

Research Assistant, University of Dhaka

August 2021 – April 2022

Under Project “Biological survey, genetic analysis, current dose assessment and genotoxicity evaluation of some candidate pesticides to rapidly control dengue/chikungunya vectors (Aedes spp.) in Bangladesh.”

Research Experience

Worked with Dr. Ashfaul Muid Khandaker on “The effect of RAD7 gene’s null mutation on single-cell aging”

2022

Status: Published (Microbial Bioactives); Keywords: DNA Repair Gene; mitochondria; cell aging; RAD7; *Saccharomyces cerevisiae*

- We deciphered aging on yeast model using *RAD7* gene null mutation.
- CLS, glycerol spotting assay, mtDNA abundance by fluorescence microscopy, bioinformatics analysis have been performed.

Worked with Dr. Ashfaul Muid Khandaker on “The role of probiotics on animal health and nutrition”

2021

Status: Published (SpringerNature); Keywords: Probiotics; Poultry, Ruminant, Aquaculture, Immunity, Animal health

- We explained the molecular mechanism of probiotics
- We demonstrated how probiotics can modulate host gut system and provide beneficiary impact without causing drug resistance as like antibiotics
- We also presented all relevant experimental output for the major poultry, ruminant, and aqua sector to support and validate the use of probiotics for overall economic, and food sector welfare.

Worked with Dr. Ashfaul Muid Khandaker “The Role of DNA Repair Genes on Cellular Aging” (Master’s Thesis Work)

2021

Status: Completed

- Worked on null mutation of RAD7, MSH1 & MSH3 gene to decipher the role of these genes on single-cell (*Saccharomyces cerevisiae*) lifespan

Worked with Dr. Rowshan Ara Begum & Dr. Gawsia Wahidunnessa Chowdhury on “A Report on Water Analysis and Parameters of the Sundarban Rivers” (Undergraduate Field Work)

2018

Status: Completed

- Analysed DO, pH, salinity and other water parameters by collection water sample from different parts of Sundarbans

Worked with IUCN, Bangladesh Team on “Investigation of Wild to Domestic Bird Avian Influenza Transmission: A Multiyear Monitoring and Surveillance Program, IUCN”

2017, 2018

Status: Completed

- Training on bird Ringing and Sample Collection.
- Stayed at Hakaluki Haor and Tanguar Haor and conducted the survey and research.

Awards

Award	Awarded By	Year
Professor Nurul Afsar Postgraduate Fellowship	Bangladesh Council of Scientific and Industrial Research (BCSIR)	2022
Majumder Abdul Muttalib & Habiba Begum Trust Fund Scholarship	Majumder Abdul Muttalib & Habiba Begum Trust Fund, University of Dhaka	2022
4th position, Urban Health Innovation Challenge 2021: Healthy Safe and Inclusive Cities	BRAC JPGSPH, BRAC University, World Vision	2021
M.S. Thesis Award	National Science and Technology Fellowship	2020
Regional Champion, Graduate and Postgraduate group, Zoology Olympiad	Zoological Society of Bangladesh	2019

Award	Awarded By	Year
Dean's Award for Brilliant Result in B. Sc. Honors	Dhaka University	2018
Honors Scholarship (Faculty of Biological Sciences)	Education Board Bangladesh	2018
Razia Memorial Trust Fund Scholarship	Razia Memorial Trust Fund, University of Dhaka	2018
Asefa Huque Memorial Trust Fund Scholarship	Asefa Huque Memorial Trust Fund, University of Dhaka	2017

Trainings

R for Data Analysis

September 2019 – October 2019

Institute of Statistical Research and Training (ISRT), University of Dhaka

Spanish Junior Course (Level A)

2018

Institute of Modern Languages, University of Dhaka

Training Course on SPSS for Professionals & Students

April 2017

Department of Statistics, University of Dhaka

Volunteering Experience

Fellow

September-October 2020

Everyday Stories (BRAC JPGSPH, BLAST & CREA, Bangladesh)

Volunteer Field Assistant

March-May 2018

Faculty of Environment and Natural Resources, University of Freiburg, Germany

Academic Team Member

January 2015 – December 2017

Society for the Popularization of Science, Bangladesh (SPSB)

Reference

Dr. Ashfaqu Muid Khandaker

Assistant Professor, Dept. of Zoology, University of Dhaka,

Email: muid.zoo@du.ac.bd

Profile: https://www.du.ac.bd/faculty/faculty_details/ZOO/2282

Dr. Rowshan Ara Begum

Professor, Dept. of Zoology, University of Dhaka

Email: rowshanbegum@du.ac.bd

Profile: https://du.ac.bd/body/faculty_details/ZOO/1738

Dr. Md. Ismail Hosen

Assistant Professor, Dept. of Biochemistry and Molecular Biology, University of Dhaka

Email: ismail.hosen@du.ac.bd

Profile: https://du.ac.bd/body/faculty_details/BCH/1543