

# Ismat Jahan Anee

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## Research Interest

Molecular Biology, Cell Biology, Aging, Host-Pathogen Interactions, Infectious Disease, Therapeutic Drugs, Population Genetics.

## 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

## Test Score

### TOEFL iBT (Internet-based test)

Score: 107 (R28 L27 S24 W28)

## 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, Ashfaqu Muid Khandaker. Microbial Bioactives. [\[Link\]](#)

### 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). [\[Link\]](#)

## Conference Paper

### 2022

“Analyzing the Effect of PMS1 Gene Deletion Mutation in Single Cell Aging” Fatema Akter Sadia, Nazela Ahmed Chowdhury, Mahapara Tabassum, **Ismat Jahan Anee**, Rowshan Ara Begum, Ashfaqu Muid Khandaker. International Conference on Environmental Protection for Sustainable Development (ICEPSD-2022); Forest and Environment Affairs Sub-Committee, Bangladesh Awami League. [\[Link\]](#)

### 2021

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

## Work Experience

### Research Fellow, Bangladesh Council of Scientific and Industrial Research

#### 2022

Received Professor Nurul Afsar Khan Post Graduate Fellowship. Working on Project “Microplastics in Fish Feed: An Alarming Issue in Aquaculture Sector of Bangladesh.”

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### Short Term Temporary (STT) & Short-Term Consultant (STC) 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

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## 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. Ashfaqu Muid Khandaker on “The effect of RAD7 gene’s null mutation on single-cell aging”** [\[Link\]](#)

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.

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**Worked with Dr. Nahid Sultana on “Microplastics in Fish Feed: An Alarming Issue in Aquaculture Sector of Bangladesh.”**

2022

Status: Ongoing; Keywords: Micro plastics; fish feed; fish meal

- We will analyse microplastics in fish feed collected from different parts of Bangladesh
- Fish tissue sampling; microplastics extraction, analysis using FTIR

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**Worked with Dr. Ashfaqu Muid Khandaker on “The role of probiotics on animal health and nutrition”** [\[Link\]](#)

2021

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

- We demonstrated how probiotics can modulate host gut system and provide beneficiary impact without causing drug resistance as like antibiotics

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**Worked with Dr. Ashfaqu Muid Khandaker “The Role of DNA Repair Genes on Cellular Aging” (Master’s Thesis Work)** [\[Link\]](#)

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

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**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)** [\[Link\]](#)

2018

Status: Completed

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

## 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
Fourth 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
Dean’s Award for Brilliant Result in B. Sc. Honors	Dhaka University	2018

Award	Awarded By	Year
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

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### Spanish Junior Course (Level A)

2018

Institute of Modern Languages, University of Dhaka

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### Training Course on SPSS for Professionals & Students

April 2017

Department of Statistics, University of Dhaka

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### Training on bird Ringing and Sample Collection Under Project “Investigation of Wild to Domestic Bird Avian Influenza Transmission: A Multiyear Monitoring and Surveillance Program, IUCN”

2017, 2018

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

### Fellow

September-October 2020

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

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### Volunteer Field Assistant

March-May 2018

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

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### Academic Team Member

January 2015 – December 2017

Society for the Popularization of Science, Bangladesh (SPSB)

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## Reference

### Dr. Ashfaul Muid Khandaker

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

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Profile: [https://www.du.ac.bd/faculty/faculty\\_details/ZOO/2282](https://www.du.ac.bd/faculty/faculty_details/ZOO/2282)

### Dr. Rowshan Ara Begum

Professor, Dept. of Zoology, University of Dhaka

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### Dr. Mohammad Riazul Islam

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

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