

Name: Nayeema Bulbul, Ph.D.
Designation: Associate Professor
Department: Biology and Chemistry
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Academic Qualification:

2008, Doctor of Philosophy (Ph.D)
Degree/Certificate : Ph.D. in Science and Engineering majoring in Biological and Environmental Sciences
Institution : Saitama University, Japan
Period of study: October, 2005 – September, 2008
Doctor Course Thesis Title:
Ultrastructural studies of cellular specialization involved in the establishment of symbiosis in soybean root nodules.

1999, Master of Science (M.Sc.)
Degree/Certificate : M.Sc. in Microbiology
Institution : University of Dhaka, Bangladesh
Period of study : July, 1998- June 1999 (Examination held in 2002)
Master Course Thesis Title:
Partial purification and Characterization of alpha-amylases from *Streptomyces pseudoechinosporeus*.

Major Courses: Genetic Engineering and Microbial Biotechnology, Advanced Food and Pharmaceutical Microbiology, Environmental Pollution and Microbial Control, Advanced Immunology and Infectious Diseases, Selected Topics in Microbiology

1998, Bachelor of Science (B.Sc.)
Degree/Certificate : B.Sc. with Honours in Microbiology
Institution : University of Dhaka, Bangladesh
Period of study : July, 1995 - June, 1998 (Examination held in 2000)
Major Courses:

- General Microbiology, Microbial Ecology, Food Microbiology, Microbial Chemistry, Basic Techniques in Microbiology, Microbial genetics, Environmental Microbiology, Microbial physiology and Metabolism, Clinical Microbiology, Mycology, Pharmaceutical Microbiology, Immunology, Molecular Biology, Analytical Microbiology, Agricultural Microbiology, Biotechnology, Enzymology, Virology

Publications:

1. Bulbul N, Sakurai M, Matsushima H, Kaneko Y (2008) Induction of ultrastructural specialization for ureide metabolism in soybean tissue cultured in vitro. *Plant Science*, 175: 833-838
2. Bulbul N, Kaneko Y (2009) Co-localization of membranes and actin in growing infected cells of the *Glycine max* root nodules. *Plant Biology*, 11: 555-560.

Manuscripts in Preparation:

1. Bulbul Nayeema, Yoneya Yuta, Murata Kazuyoshi, Kaneko Yasuko. Peribacteroid membranes in growing infected cells of soybean root nodules uses actin microfilaments.
2. Bulbul Nayeema, Hossain Mohammad Sharif Tayebah. Potential risk of Salmonella spp. and Other Pathogenic Bacteria in Egg Shells and Egg Contents in Dhaka,
3. Bulbul Nayeema, Md. Shahedul Hasan. Screening of antibiotic producing fungi from the soil of Bashundhara residential area, Dhaka. Bangladesh
4. Bulbul Nayeema, Tahseenuzzaman. The Prevalence of Non-Typhoidal Salmonella in Raw and Grilled Chicken from Bashundhara and Nearby Area of Dhaka City.

Presentations in Conference:

1. Bulbul Nayeema, Nakatomi Reiko, Hashikawa Tsutomu, Kaneko Yasuko, Cryo SEM observation of soybean root nodules. Electron Microscopy Society, Kanto Region, Tokyo-, March, 2007.
2. Bulbul Nayeema, Kaneko Yasuko, Development of ultrastructure specialized for ureide metabolism in soybean. 63 Annual Meeting, Organized by: Japanese Society of Microscopy, Niigata, May 20-23, 2007.
3. Bulbul Nayeema, Kaneko Yasuko, Ultrastructural specialization for ureide metabolism in soybean tissue cultured in vitro. Botanical Society of Japan, Chiba, September 7-9, 2007.
4. Bulbul Nayeema, Nakatomi Reiko, Hashikawa Tsutomu, Kaneko Yasuko, - A peculiar membranous structure associated with proliferating bacteroids of soybean root nodule. Electron Microscopy Society, Kanto Region, Tokyo, March, 2008.
5. Bulbul Nayeema, Nakatomi Reiko, Hashikawa Tsutomu, Kaneko Yasuko, Co localization of actin and membranes in the infected cells of soybean root nodules. 64 Annual Meeting, Organized by: Japanese Society of Microscopy, Kyoto, May 21-23, 2008.
6. Bulbul Nayeema, Nakatomi Reiko, Hashikawa Tsutomu, Kaneko Yasuko, A novel tubular structure in the infected cells of soybean root nodules. 39th NIPS International Symposium, Okazaki, Japan, November 10-12, 2008.
7. Bulbul Nayeema, Yoneya Yuta, Murata Kazuyoshi , Kaneko Yasuko, Formation of Peribacteroid Membranes in The Growing Infected Cells of Soybean Root Nodules. 77th Annual Meeting of the Botanical Society of Japan, Sapporo, Japan September 13-15, 2013.
8. Bulbul Nayeema, Yoneya Yuta, Murata Kazuyoshi, Kaneko Yasuko, Delivery of Peribacteroid Membranes in Growing Infected Cells of Soybean Root Nodules uses actin microfilaments. NIPS (National Institute of Physiological Sciences) Workshop 2013, "EM Functional Imaging for Biomedical Applications - Functional Imaging from Molecule to Cells" Okazaki, Japan, November 13-15, 2013.
9. Bulbul Nayeema, Murata Kazuyoshi, Yoneya Yuta , Kaneko Yasuko. Membrane structures in soybean root nodule cells visualized by cryo-EM. The 70th Annual Meeting of the Japanese Society of Microscopy, Chiba, Japan, May 11-13, 2014.

Research techniques known:

Identification of bacteria using microscopic and biochemical techniques, Maintaining and preserving the bacterial cultures, Optimization of conditions for better enzyme production, extracting both extra and intracellular enzymes, Enzyme assay, Determining protein concentration, $(\text{NH}_4)_2\text{SO}_4$ fractionation, Column Chromatography, SDS- PAGE , Characterization of enzymes, genome DNA extraction, insert and vector DNA preparation, Ligation and electroporation, Replica plating method, PCR, Tissue Culture, Light Microscopy, Fluorescent Microscopy, Transmission Electron Microscopy; Sample preparation for TEM, cryo-SEM, Fluorescent microscope, Ultra-microtomy using both glass knives and Diamond knives, Cyto-chemistry, Immunocytochemistry, Rapid freezing and freeze substitution

Experience:

Feb 4, 2016 – till date: Associate Professor, Dept of Biology and Chemistry, North South University, Dhaka, Bangladesh
Sep 2010- Jan 2016: Assistant Professor, Dept of Biology and Chemistry, North South University, Dhaka, Bangladesh
Jun 2009- Aug 2010: Assistant Professor (Part Time Faculty), Dept of Biology and Chemistry, North South University, Dhaka, Bangladesh
Nov 2008- Mar 2009: Visiting Foreign Researcher, Faculty of Education, Saitama University, Japan
Oct 2005- Sep 2008: PhD Student, Department of Regulation Biology, Saitama University, Japan
May 2004- Sep 2005: Microbiologist , Bottled Water plant, Duncan Brothers, Dhaka, Bangladesh

Major Awards and Scholarships:

Monbukagakusho Scholarship (MEXT Scholarship: Ministry of Education, Science, Sports and Culture of Japan):

From October 2005 to September, 2008 as a graduate student to carry out the research work at the Faculty of Science and Engineering, Saitama University, Japan in order to obtain Doctoral degree.

JASSO Fellowship:

From September 2013 to December 2013 as a research fellow and the fellowship was given by Japan Student Services organization (JASSO) for the Fiscal Year 2012-2013 for 90 days.

English language proficiency: Good command in both spoken and written English

Other Languages known: Bengali, Japanese, Hindi

Computer Knowledge: Windows based operating system, MS office