



Curriculum Vitae of Md. Tofazzal Islam, Ph D

Md. Tofazzal Islam is a Professor and Head of the Department of Biotechnology of Bangabandhu Sheikh Mujibur Rahman Agricultural University (BSMRAU), Gazipur. He obtained B Sc Ag (Hon) and M Sc (Ag) in Agricultural Chemistry from Bangladesh Agricultural University (BAU), securing **First** position in the **First Class** in both the cases in order of merit. He joined BOU as a lecturer in 1994 and became an Assistant, Associate and Professor in 1997, 2004 and 2010, respectively. He joined BSMRAU in July 1, 2010 as a Professor and Head of the Department of Biotechnology.

He went to Hokkaido University, Japan with Japanese Government Scholarship (Monbusho), where he obtained his MS (1999) and Ph D (2002) in Applied Bioscience under the supervision of Professor Dr. Satoshi Tahara in the Laboratory of Ecological Chemistry. His MS and Ph D theses were involved in understanding cell biology of motility, taxis, viability and differentiation of zoospores of the oomycete phytopathogens when interacting with host and nonhost plant secondary metabolites. He has awarded a fellowship (2003-2005) from the Japan Society for the Promotion of Science (JSPS) to work on 'signaling systems between root and rhizoplane microorganisms including oomycetes and their agricultural usage' at the said laboratory of Hokkaido University.

Dr. Islam got many prizes and medals for his outstanding academic and research accomplishments in fundamental understanding of cell biology and ecological chemistry of the Oomycete phytopathogens, including the **University Grants Commission (UGC) Research Award** in Agricultural Sciences in 2004 and 2008 (**twice**), the **Best Young Scientist Award 2003** from the Japan Society for Bioscience, Biotechnology and Agrochemistry, **Chancellor's Prize in 1995 and a Gold Medal in 2003** from BAU, **UGC Merit Award in 1990**, and **Prof. A. Karim Memorial Award in 1992**. He published more than 90 research papers in national and international peer-reviewed journals and books series, more than 70 articles in national dailies and periodicals, seven books. Most of his fundamental research contributions have been published in some world-leading international journals and reviews such as *Molecular Plant-Microbe Interactions*, *Applied and Environmental Microbiology*, *Cell Motility and the Cytoskeleton*, *Journal of Agricultural and Food Chemistry*, *Phytochemistry*, *Phytopathology*, *Plant and Soil*, *Biological Control*, *European Journal of Plant Pathology*, *Bioscience*, *Biotechnology and Biochemistry*, *Journal of Pesticide*

Science, Journal of Basic Microbiology, World Journal of Microbiology and Biotechnology, Journal of General Plant Pathology and so on. He presented research findings and chaired sessions in many international conferences/symposia in USA, UK, Germany, Japan, Italy, Netherlands, Malaysia, China, and Jamaica.

Dr. Islam worked as an **Alexander von Humboldt fellow** (2007-2009) at Georg-August-Universitaet Goettingen, Germany with Prof. Dr. Andreas von Tiedemann in the Division of Plant Pathology and Plant Protection. His research interests are concentrated in understanding the underlying molecular mechanism of asexual sporulation in peronosporomycetes and signal transduction pathways of chemotaxis and differentiation of zoospores. He supervised a good number of MS and Ph D students, and actively involved in many professional research networks/organizations at home and abroad. Over the years, he has established research collaborations with many scientists in Japan, China, UK, Germany, Netherlands, USA and Canada.

Contact Details

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Date of Birth and Nationality

20 December 1966 and Bangladeshi by birth.

Area of Specialization and Research Interests

- Cell Motility, Cytoskeleton and Differentiation
- Applied and Environmental Microbiology
- Ecological Chemistry

Education

Ph D in Applied Bioscience (**Grade A, Excellent**) (2002), Hokkaido University, *Japan*

M S in Ecological Chemistry (**Grade A, Excellent**) (1999), Hokkaido University, *Japan*

M Sc (Ag) in Agricultural Chemistry (**First Class First**) (1995), Bangladesh Agricultural University, *Bangladesh*

B Sc Agriculture (**First Class First**) (1991), Bangladesh Agricultural University, *Bangladesh*

H S C (Science) (**First Division**) (1984), Comilla Board, *Bangladesh*

S S C (Science) (**First Division**) (1982), Comilla Board, *Bangladesh*

Professional experience

Professor and Head 7/2010 – to date
 Department of Biotechnology
 Bangabandhu Sheikh Mujibur Rahman Agricultural University, *Gazipur, Bangladesh*

Professor (Agricultural Chemistry) 1/2010 – 7/2010
 School of Agriculture and Rural Development, BOU, *Gazipur, Bangladesh*

Associate Professor (Ecological Chemistry) 4/2004 – 1/2010
 School of Agriculture and Rural Development, BOU, *Gazipur, Bangladesh*

Alexander von Humboldt Fellow
 Georg-August Universitaet *Goettingen, Germany* 4/2007- 3/2009

JSPS Postdoctoral Research Fellow
 Hokkaido University, *Sapporo, Japan* 4/2003 – 4/2005

Assistant Professor (Ecological Chemistry) 5/1997 – 4/2004
 School of Agriculture and Rural Development, BOU, *Gazipur, Bangladesh*

Lecturer (Agriculture) 9/1994 – 5/1997
 School of Agriculture and Rural Development, BOU, *Gazipur, Bangladesh*

Graduate Research Assistant 7/1991 – 8/1994
 Bangladesh Agricultural University, *Mymensingh, Bangladesh*

Major Technical skills

- Experienced in using common molecular techniques required for elucidation of underlying molecular mechanism of plant-microbe interactions under both *in vitro* and *in vivo* green house conditions.
- Skilled in light, scanning and transmission electron microscopy (SEM and TEM), confocal laser scanning microscopy (CLSM), and immunocytochemistry for conducting research in all aspects of modern cell biology.
- Skilled in bioassay-guided isolation of bioactive natural products from plants and microorganisms, and elucidation of their chemical structures by spectroscopic methods.
- Experienced and expert in handling and analysing data of different kinds of column chromatography, HPLC, PTLC, FD and EI mass spectrometers, UV-Vis, IR, FTIR spectrophotometer, one and two dimensional NMR, atomic absorption spectrophotometer, spectrometers of CD and MALDI-TOF-MS, X-ray microanalysis, flame photometer, and polarimeter.
- Experienced in analyzing membrane phospholipids of cells by radiolabeling of ³²P for conducting research on phospholipid signalling in the cells.
- Efficient in one and two-dimensional gel electrophoresis for proteomic studies and expert in isolation, culture and identification of microorganisms by molecular techniques.
- Expert is developing bioassay methods for testing activities of natural and environmental chemical compounds toward various cells.

Recognition and Merit Awards

1. Won the **UGC Research Award 2008** (award received in May 2011) for outstanding fundamental research discoveries in Agricultural Sciences (a national level award).
2. Awarded **Alexander von Humboldt Postdoctoral Fellowship** (April 2007 to March 2009) to work on motility and signal transduction pathways in grapevine pathogen *Plasmopara viticola* at Georg-August-Universitaet Goettingen, **Germany**.
3. Won the **UGC Research Award 2004** (award received in December 2007) for outstanding fundamental research discoveries in Agricultural Sciences (a national level award).
4. Awarded as the **Best Young Scientist 2003** by the Japan Society for Bioscience, Biotechnology, and Agrochemistry (JSBBA), **Japan** for outstanding research discoveries on chemical ecology of soilborne peronosporomycetes during Ph D studies.
5. Awarded 24 months long **Foreign Researcher Postdoctoral Fellowship (2003-2005)** from **Japan Society for the Promotion of Science (JSPS)**, Japan to work on signalling systems in rhizosphere microorganisms and their usage in agriculture.
6. Won the **Best Presenter Award (2002)** in the 3rd World Congress on Allelopathy, International Allelopathy Society, Tsukuba, **Japan**.

7. Selected for the **UNDP Young Scientist Award 2002** for Participating in the Global Natural Products Symposium and Workshop, 9-30 July 2000, University of West Indies, Kingston 7, **Jamaica**.
8. Won the **Japanese Government Scholarship (Monbukagakusho) (1997-2002)** for MS and Ph D Study at Hokkaido University, **Japan**.
9. Awarded a **Gold Medal** from **Prof. Dr. Iajuddin Ahmed, the Honorable President** of the People's Republic of Bangladesh and the Chancellor of BAU in 2003 for outstanding results in Masters of Science (Ag) in Agricultural Chemistry in 1995.
10. Won **Bangladesh Agricultural University Prize** in 1995 from **Begum Khaleda Zia, the Honorable Prime Minister** of the People's Republic of Bangladesh and the Chancellor of BAU for Securing **First Position in the First Class** in B. Sc. Ag. (Hons.) in 1991.
11. Awarded **Prof. Dr. Abdul Karim Memorial Prize** in 1994, Bangladesh Agricultural University, Bangladesh for outstanding results in B. Sc. Ag. (Hons.).
12. Got **Merit Scholarship** in 1990 from the **University Grants Commission (UGC)**, Sher-e-Bangla Nagar, Dhaka, Bangladesh.

Publications

Dr. Islam is author or co-authors of a considerable number of research publications, review, and chapter in books spanning the areas of molecular plant-oomycete interactions, phytopathology, applied and environmental microbiology, biotechnology, plant physiology and e-learning. Some of his important publications are listed below:

2010-2011

1. **M. Tofazzal Islam**, Andreas von Tiedemann, Hartmut Laatsch, 2011. Protein kinase C is likely to be involved in zoosporogenesis and maintenance of flagellar motility in the Peronosporomycete zoospores. *Molecular Plant-Microbe Interactions* DOI: 10.1094/MPMI-12-10-0280. (USA)
2. **M. Tofazzal Islam**, Andreas von Tiedemann, 2011. 2,4-Diacetylphloroglucinol suppresses zoosporogenesis and impairs motility of the Peronosporomycete zoospores. *World Journal of Microbiology and Biotechnology* DOI 10.1007/s11274-011-0669-7 (USA)
3. **Md. Tofazzal Islam**, 2011. Potentials for biological control of plant diseases by *Lysobacter* spp., with special reference to strain SB-K88. In: *Bacteria in Agrobiolgy: Plant Growth Responses*. Maheshwari DK ed., Springer, 40 pp., *in press* **The Netherlands**.
4. Abdalla MA, Win HY, **Islam MT**, Tiedemann Av, Schüffler A, Laatsch H, 2011. Khatmiamycin, a motility Inhibitor and zoosporicide against the downy mildew pathogen *Plasmopara viticola* from *Streptomyces* sp. ANK313. *Journal of Antibiotics* (in press). (**Japan**)
5. M. Abdur Razzaque, Nur Mohammad Talukder, **Md. Tofazzal Islam**, R. Kumar Dutta. 2011. Salinity effect on mineral nutrient distribution along root and shoot of rice (*Oryza sativa* L.) genotypes differing in salt tolerance. *Archives of Agronomy and Soil Science*, 57: 33-45. (**Germany**)
6. Zinad DS, Shaaban KA, Abdalla MA, **Islam MT**, Anke H, Laatsch H, 2011. Bioactive isocoumarins from a terrestrial *Streptomyces* sp. ANK302. *Natural Product Communication* **6**: 45-48. (USA).
7. **Md. Tofazzal Islam**, 2011. Cost-effectiveness, equitable and flexible higher education through open and distance learning in Bangladesh. *Turkish Online Journal of Distance Education* **12**: 102-113.
8. M. Abdul Hannan, M. Afzal Hossain, **Md. Tofazzal Islam**, 2010. Seed extracts of a Bangladeshi medicinal plant *Abrus precatorius* L. show antifertility activity in female rats. *Oriental Pharmacy and Experimental Medicine* **10**, 103-110. (**South Korea**).

9. **Md. Tofazzal Islam**, 2010. Mode of antagonism of a biocontrol bacterium *Lysobacter* sp. SB-K88 toward a damping-off pathogen *Aphanomyces cochlioides*. *World Journal of Microbiology and Biotechnology*, **26**: 629-637. (USA)
10. **Md. Tofazzal Islam** and Yukiharu Fukushi, 2010. Growth inhibition and excessive branching in *Aphanomyces cochlioides* induced by 2,4-diacetylphloroglucinol is linked to disruption of filamentous actin cytoskeleton in the hyphae. *World Journal of Microbiology and Biotechnology* **26**, 1163-1170. (USA)
11. **Md. Tofazzal Islam**, 2010. Morphology and behavior of the successive generations of zoospores of a damping-off pathogen *Aphanomyces cochlioides*. *Journal of Plant Pathology* **92**: 461-468. (Italy)
12. **Md. Tofazzal Islam**, 2010. Ultrastructure of *Aphanomyces cochlioides* zoospores and changes during their developmental transitions triggered by the host-specific flavone cochliophilin A. *Journal of Basic Microbiology* **50**: 1-10 (Germany)

2008-2009

13. **Md. Tofazzal Islam**, A. K. M. Golam Sarwar, Hasna Hena Begum, Toshiaki Ito and Satoshi Tahara. 2009. Epidermal features of rice leaf epidermis of rice (*Oryza sativa* L.) cv. BR29. *Bangladesh Journal of Plant Taxonomy*, **16**: 177-180. (Bangladesh)
14. **Md. Tofazzal Islam**. 2009. Variation in chemotactic preferences of *Aphanomyces cochlioides* zoospores to flavonoids. *Zeitschrift fuer Naturforschung* **64c**: 847-852. (Germany)
15. **Md. Tofazzal Islam**. 2009. Challenges and opportunities of teaching science in a distance in a developing country. In: Accessible Elements: Teaching Science Online and at a Distance, Kennepohl, D, Shaw, L. eds., Athabasca University Press, Canada.
16. **Md. Tofazzal Islam**. 2008. Dynamic rearrangement of F-actin organization triggered by host-specific plant signal is linked to morphogenesis of *Aphanomyces cochlioides* zoospores. *Cell Motility and the Cytoskeleton* **65**: 553-562. (USA)
17. **Md. Tofazzal Islam**. 2008. Nonhost secondary metabolites affect motility and viability of the zoospores of phytopathogenic *Aphanomyces cochlioides*. *Zeitschrift fuer Naturforschung* **63c**: 233-240. (Germany)
18. **Md. Tofazzal Islam**. 2008. Disruption of ultrastructure and cytoskeletal network is involved with biocontrol of damping-off pathogen *Aphanomyces cochlioides* by *Lysobacter* sp. strain SB-K88. *Biological Control* **46**: 312-321. (The Netherlands)
19. **Md. Tofazzal Islam** and Andreas von Tiedemann. 2008. Zoosporogenesis and differentiation of grapevine downy mildew pathogen *Plasmopara viticola* in host-free system. *Phytopathology* **98**: S72. (USA)
20. **Md. Tofazzal Islam**. 2008. Appropriateness of Curricula, Technology Choice and Methods of Assessment: A Study of Vocational Education Programmes in Agriculture through Distance Mode. **WikiEducator** (<http://www.wikieducator.org/Image:Dr.Tofazzal-PCF5.pdf>).
21. **Md. Tofazzal Islam** and Andreas von Tiedemann. 2008. Signalling and interactions between plants and phytopathogenic Peronosporomycetes. *Phytopathology* **98**: S72. (USA)
22. Md. Shohidul Alam, Nur Mohammad Talukder, **Md. Tofazzal Islam** and Atiqur Rahman. 2008. Rhizoplane bacteria as phosphate solubilizing agent on phosphorus nutrition of rice. *Bangladesh Journal of Agricultural Sciences* **35** (2): 181-188 (Bangladesh)
23. Md. Shohidul Alam, Nur Mohammad Talukder, **Md. Tofazzal Islam**, Animesh Sarkar and M. M.

Hossain. 2008. Phosphate solubilizing rhizoplane bacteria on growth and yield of transplant aman rice. *Journal of Agroforestry and Environment* 2 (1): 19-22. **(Bangladesh)**.

2006-2007

24. **Md. Tofazzal Islam**, Misuyoshi Sakasai, Yasuyuki Hashidoko, Abhinandan Deora, Yasuko Sakihama and Satoshi Tahara, 2007. Composition of culture medium influences zoosporegenesis and differentiation of *Aphanomyces cochlioides*. *Journal of General Plant Pathology* **73**: 324-329. **(Japan)**
25. **Md. Tofazzal Islam**, Yasuyuki Hashidoko, and Satoshi Tahara, 2007. Understanding of ecochemical interactions between plants and zoospores: potentials for biorational control of the peronosporomycete soilborne phytopathogens. In: *Crop Production in Stress Environments: Genetic and Management Options*, Eds., Singh *et al.* (Agrobios International), Jodhpur, India, pp. 275-288. **(India)**
26. **Md. Tofazzal Islam**, Abhinandan Deora, Yasuyuki Hashidoko, Atiqur Rahman, Toshiaki Ito and Satoshi Tahara, 2007. Isolation and identification of potential phosphate solubilizing bacteria from the rhizoplane of *Oryza sativa* L. cv. BR29 of Bangladesh. *Zeitschrift fuer Naturforschung* **62c**: 103-110. **(Germany)**
27. Abhinandan Deora, Yasuyuki Hashidoko, **Md. Tofazzal Islam**, Yuriko Aoyama, Toshiaki Ito and Satoshi Tahara, 2007. Morpho-physiological disorders in damping-off pathogen *Aphanomyces cochlioides* interacting with host rhizoplane bacteria. In: *Crop Production in Stress Environments: Genetic and Management Options*, Eds., Singh *et al.* (Agrobios International), Jodhpur, India, pp. 119-127. **(India)**
28. Yaolin Wen, **Md. Tofazzal Islam** and Satoshi Tahara, 2006. Phenolic constituents of *Celosia cristata* L. susceptible to the spinach root rot pathogen *Aphanomyces cochlioides*. *Bioscience, Biochemistry and Biotechnology* **70**: 2567-2570. **(Japan)**
29. Abhinandan Deora, Yasuyuki Hashidoko, **Md. Tofazzal Islam**, Toshiaki Ito, Yuriko Aoyama, and Satoshi Tahara, 2006. An antagonistic rhizoplane bacterium *Pseudomonas* sp. strain EC-S101 physiologically stresses a spinach root rot pathogen *Aphanomyces cochlioides*. *Journal of General Plant Pathology* **72**: 57-64. **(Japan)**
30. Atiqur Rahman, Nur Mohammad Talukder and **Md. Tofazzal Islam**. 2006. Screening phosphate solubilizing bacteria from rhizoplane of tomato. *Bangladesh Journal of Progressive Science and Technology*, **4**: 1-6. **(Bangladesh)**
31. Rubeca Fancy, A. Rahman, **Md. Tofazzal Islam** and M. Akhtar Hossain Chowdhury. 2006. Nutrient contents and their uptake by maize in acid soils as influenced by low levels of phosphorus. *Journal of the Bangladesh Society for Agricultural Science and Technology* **3**: 69-72. **(Bangladesh)**
32. M. Abdul Hannan, M. Afzal Hossain, **Md. Tofazzal Islam**, E. Hossain Chowdhury. 2006. Contraceptive effects of *Abrus precatorius* seed on female rats. *Journal of Bangladesh Society of Agricultural Science and Technology* **3**(3&4): 185-188. **(Bangladesh)**
33. **Md. Tofazzal Islam**, Md. Morshedur Rahman and K. M. Rezanur Rahman. 2006. Quality and processes of Bangladesh Open University course materials development. *Turkish Online Journal of Distance Education* **7**: 130-138. **(Turkey)**
34. **Md. Tofazzal Islam** and Abu Sadeque Md. Selim. 2006. Quality assurance in distance education on 'agriculture and rural development': A workshop at Bangladesh Open University. *Indian Journal of Open Learning* **15**: 196-198. **(India)**

35. **Md. Tofazzal Islam.** 2006. Library Services for Life-long Learning and Research in the 21st Century. In: *Library in Education and Development* (ISBN 984-8523-18-9), Mohammad Sadat Ali Ed., Natunthara Publishers, Dhaka, Bangladesh, pp. 21-32. (**Bangladesh**)
36. **Md. Tofazzal Islam** and Abu Sadeque Md. Selim. 2006. Information and communication technologies for the promotion of open and distance learning in Bangladesh. *Journal Agriculture and Rural Development* **4**: 35-42. (**Bangladesh**)
37. **Md. Tofazzal Islam.** 2006. Usage of Electronic Databases in Quality Education and Research. In: *Library in Education and Development* (ISBN 984-8523-18-9), Mohammad Sadat Ali Ed., Natunthara Publishers, Dhaka, Bangladesh, pp. 33-36. (**Bangladesh**)

2004-2005

38. **Md. Tofazzal Islam**, Yasuyuki Hashidoko, Abhinandan Deora, Toshiaki Ito and Satoshi Tahara, 2005. Suppression of damping-off disease in host plants by the rhizoplane bacterium *Lysobacter* sp. strain SB-K88 is linked to plant colonization and antibiosis against soilborne Peronosporomycetes. *Applied and Environmental Microbiology* **71**: 3786-3796. (**USA**)
39. Satoshi Tahara and **Md. Tofazzal Islam**, 2005. Secondary metabolites with diverse activities toward phytopathogenic zoospores of *Aphanomyces cochlioides* in host and nonhost plants. In: *Discoveries in Agrochemicals*, ACS Symposium Series 892, American Chemical Society, pp. 202-215. (**USA**)
40. Abhinandan Deora, Yasuyuki Hashidoko, **Md. Tofazzal Islam** and Satoshi Tahara, 2005. Antagonistic rhizoplane bacteria induce diverse morphological alterations in Peronosporomycetes hyphae during *in vitro* interaction. *European Journal of Plant Pathology* **112**: 311-322. (**The Netherlands**)
41. **Md. Tofazzal Islam** and Satoshi Tahara, 2005. Bioactive secondary metabolites related to life-cycle development of oomycete phytopathogens. In: *Studies in Natural Products Chemistry*, Volume 32, Atta-ur-Rahman ed., Elsevier Science Publishers. pp. 1053-1122. (**The Netherlands**)
42. Hasna Hena Begum and **Md. Tofazzal Islam**. 2005. Role of synthesis and exudation of organic acids in phosphorus nutrition in plants in tropical soils. *Biotechnology* **4**: 333-340. (**Pakistan**)
43. **Md. Tofazzal Islam**, 2005. Ecochemical interactions between plants and phytopathogenic *Aphanomyces cochlioides* zoospores. *Journal of the Graduate School of Agriculture, Hokkaido University* **71**: 123-218. (**Japan**)
44. **Md. Tofazzal Islam** and Abu Sadeque Md. Selim. 2005. Current status and prospects for e-learning in the promotion of distance education in Bangladesh. *Turkish Online Journal of Distance Education*, **6** (4): Article, 11. (**Turkey**)
45. **Md. Tofazzal Islam**, Abu Sadeque Md. Selim and Md. Morshedur Rahman. 2005. Promotion of distance education through digital technology. *Information Technology Journal*, **4**: 484-488. (**Pakistan**)
46. **Md. Tofazzal Islam**, Md. Morshedur Rahman and K. M. Rezanur Rahman. 2005. Some reflections on the quality and processes of Bangladesh Open University course materials development, *Open Praxis*, The Electronic Journal of the International Council of Distance Education (ICDE), ICDE Lilleakerveien 23, 0283 Oslo (www.icde.org).
47. Hasna Hena Begum, Mitsuru Osaki and **Md. Tofazzal Islam**. 2005. Mechanisms of phosphorus nutrition in plants in tropical and sub-tropical soils – a review. *Journal of Agriculture and Rural Development* **3**: 1-8 (**Bangladesh**)

48. Tomohiko Takayama, Yukiharu Fukushi, **Md. Tofazzal Islam** and Satoshi Tahara, 2004. Quantification of particle method for chemotactic bioassay using Peronosporomycete zoospores. *Zeitschrift fuer Naturforschung* **59c**: 892-896. (Germany)
49. **Md. Tofazzal Islam**, Tomohiko Takayama and Satoshi Tahara, 2004. Bioassay methods to detect and identify allelochemicals in plants using zoospores of phytopathogens the Peronosporomycetes. In: *Research Methods in Plant Sciences*, Volume 2. Plant Protection, S. S. Narwal, R. Singh, R. K. Walia and V. P. Sharma eds., pp. 212-241, Scientific Publishers (India), Jodhpur. (India)
50. **Md. Tofazzal Islam**, Yasuyuki Hashidoko, Abhinandan Deora, Toshiaki Ito and Satoshi Tahara, 2004. Interactions between rhizoplane bacteria and a phytopathogenic Peronosporomycete *Aphanomyces cochlioides* in relation to the suppression of damping-off disease in sugar beet and spinach. *IOBC/wprs Bulletin* **27(8)**: 255-260. (France)
51. Henny Hoo, Yasuyuki Hashidoko, **Md. Tofazzal Islam** and Satoshi Tahara, 2004. Requirement of relatively high threshold level of Mg²⁺ for cell growth of a rhizoplane bacterium *Sphingomonas yanoikuyae* EC-S001. *Applied and Environmental Microbiology* **70**: 5214-5221. (USA)
52. **Md. Tofazzal Islam**, Yasuyuki Hashidoko, Toshiaki Ito and Satoshi Tahara, 2004. Interruption of the homing sequence of phytopathogenic *Aphanomyces cochlioides* zoospores by secondary metabolites from nonhost *Amaranthus gangeticus*. *Journal of Pesticide Science* **29**: 6-14. (Japan)

2002-2003

53. **Md. Tofazzal Islam**, Toshiaki Ito and Satoshi Tahara, 2003. Host-specific plant signal and G-protein activator, mastoparan, triggers differentiation of zoospores of the phytopathogenic oomycete *Aphanomyces cochlioides*. *Plant and Soil* **255**: 131-142. (The Netherlands)
54. **Md. Tofazzal Islam**, Toshiaki Ito and Satoshi Tahara, 2003. Host-specific plant signal and G-protein activator, mastoparan, triggers differentiation of zoospores of the phytopathogenic oomycete *Aphanomyces cochlioides*. In: *Developments in Plants and Soil Sciences*, Vol. 101, Roots: The Dynamic Interface between Plants and the Earth. Abe, J. Ed., pp. 131-142. Kluwer Academic Publishers, Dordrecht. (The Netherlands)
55. **Md. Tofazzal Islam**, Toshiaki Ito, Mitsuyoshi Sakasai and Satoshi Tahara, 2002. Zoosporicidal activity of polyflavonoid tannin identified in *Lannea coromandelica* stem bark against phytopathogenic oomycete *Aphanomyces cochlioides*. *Journal of Agriculture and Food Chemistry* **50**: 6697-6703. (USA)
56. Parvin Begum, Yasuyuki Hashidoko, **Md. Tofazzal Islam**, Yuko Ogawa and Satoshi Tahara, 2002. Zoosporicidal activities of anacardic acids against *Aphanomyces cochlioides*. *Zeitschrift fuer Naturforschung*, **57c**: 874-882. (Germany)
57. Takashi Shimai, **Md. Tofazzal Islam**, Yukiharu Fukushi, Yasuyuki Hashidoko, Ryoza Yokosawa and Satoshi Tahara, 2002. Nicotinamide and structurally related compounds show halting activity against zoospores of the phytopathogenic fungus *Aphanomyces cochlioides*. *Zeitschrift fuer Naturforschung*, **57c**: 323-331. (Germany)
58. **Md. Tofazzal Islam**, Toshiaki Ito and Satoshi Tahara, 2002. Microscopic studies on the attachment and differentiation of zoospores of the phytopathogenic fungus *Aphanomyces cochlioides*. *Journal of General Plant Pathology* **68**: 111-117. (Japan)

2000-2001

59. **Md. Tofazzal Islam**, Toshiaki Ito and Satoshi Tahara, 2001. Morphological studies on zoospore

of *Aphanomyces cochlioides* and changes during the interaction with host materials. *Journal of General Plant Pathology* **67**: 255-261. (Japan)

60. **Md. Tofazzal Islam** and Satoshi Tahara, 2001. Chemotaxis of fungal zoospores, with special reference to *Aphanomyces cochlioides*. *Bioscience, Biotechnology and Biochemistry* **65**: 1933-1948. (Japan)
61. **Md. Tofazzal Islam** and Satoshi Tahara, 2001. Repellent activity of estrogenic compounds toward zoospores of the phytopathogenic fungus *Aphanomyces cochlioides*. *Zeitschrift fuer Naturforschung* **56c**: 253-261. (Germany)
62. M. Rafiqul Islam, T. K. Dey, **Md. Tofazzal Islam**, M. Saifulla and M. U. Ahmed, 2001. Diseases of potato from true potato seed. *Bangladesh Journal of Agricultural Research* **26**: 79-86. (Bangladesh)
63. **Md. Tofazzal Islam**, Toshiaki Ito, Yasuyuki Hashidoko and Satoshi Tahara, 2001. Regulated aggregation of rhizoplane bacteria and phytopathogenic fungal zoospores on spinach seedlings. *Proceedings, the 6th ISRR Symposium*, November 11-15, 2001, Nagoya, Japan. pp. 432-433. (Japan)
64. **Md. Tofazzal Islam** and Satoshi Tahara, 2000. Dihydroflavonols from *Lannea coromandelica*. *Phytochemistry* **54**: 901-907. (USA)
65. **Md. Tofazzal Islam** and Satoshi Tahara, 2002. Survey of pharmacologically active compounds in traditional medicinal plants regulating the behavior of zoospores of phytopathogenic fungus *Aphanomyces cochlioides*. *Proceedings, International Symposium on "Utilization of Natural Products in Developing Countries: Trends and Needs"*. Mansingh, A., Young, R. E., Yee, T., Delgoda, R., Robinson, D. E., Morrison, E. and Lowe, H. eds., pp. 210-218. The University of West Indies, Mona, Kingston 7, July 10-14, 2000. (Jamaica)
66. M. R. Islam, T. K. Dey, **Md. Tofazzal Islam**, M. Saifullah and A. K. M. Khorsheduzzaman, 2000. Effect of different levels of soil moisture, soil amendment with sawdust and soil treatment with straw burning and chemicals on the incidence of damping-off disease of seedlings from true potato seed. *Bangladesh Journal of Plant Pathology*, **16**: 57-59. (Bangladesh)

1998-1999

67. **Md. Tofazzal Islam** and H. H. Begum. 1999. Concentration of nutrients in wheat plants and grain quality as influenced by different phosphatic fertilizers. *Bangladesh Journal of Agricultural Sciences*, **26**: 45-49. (Bangladesh)
68. Habib Mohammad Naser, **Md. Tofazzal Islam**, Hasna Hena Begum and Md Idris. 1999. Effects of time and frequency of irrigation on yield of wheat. *Thai Journal of Agricultural Science*, **32**: 205-209. (Thailand)
69. **Md. Tofazzal Islam** Md. Shahjahan Ali, Hasna Hena Begum and Md. Abul Khair Chowdhury. 1998. Effect of Different sources of phosphatic fertilizers on the nutrient uptake by wheat. *Progressive Agriculture*, **9**: 285-288. (Bangladesh)
70. **Md. Tofazzal Islam**, M. S. Ali, H. H. Begum and A. K. Chowdhury. 1998. Influence of different sources of phosphatic fertilizers on yield and yield attributes of modern wheat. *Bangladesh Journal of Agricultural Sciences*, **25**: 203-208. (Bangladesh)

1996-1997

71. **Md. Tofazzal Islam**, R. K. Bhowmic, M. S. Ali and M. R. Islam. 1997. Effects of nitrogen on yield attributes of high yield variety aus rice. *Journal of the National Science Council of Sri*

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Complete Book

78. **Md. Tofazzal Islam**, 2010. *Peronosporomycetes Signaling and Interactions*. Springer Publishers, The Netherlands, pp. 260 (approx.) (under process of preparation).
79. **Md. Tofazzal Islam**. 2007. *Information and Communication Technology in Education*. Paragon Enterprises Ltd., Rupayan Center, Mohakhali, Dhaka-1212, Bangladesh, ISBN 984-32-3872-9, 230pp. (in Bangla).

International conference/Symposia Proceedings Abstracts and Papers

80. M. Tofazzal Islam, 2010. Prospects for collaborative research in plant microbiology and biotechnology for sustainability and food security in South Asia. First Kathmandu Kolleg, 15-18 November 2010, Kathmandu, Nepal.
81. M. Tofazzal Islam, 2010. Understanding ecological chemistry of zoospores: potentials for environment-friendly management of the peronosporomycete phytopathogens. 33rd Annual Conference of Bangladesh Chemical Society, December 10-12, 2010, Jahangirnagar University, Savar, Dhaka, Bangladesh, Abstract ILA4, p.24.
82. Nair V, Rahman H, **Islam MT**, Anke H, Laatsch H, 2009. Khalbalinone and Khalbalinal, novel tris-indole derivatives from the extracts of a marine *Streptomyces* sp. from extreme habitat Antarctica. *Proceedings of the 3rd Göttinger Chemie-Forum* Friday, 3. July 2009. Abstract No. V6.
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84. **Md. Tofazzal Islam** and Andreas von Tiedemann. 2008. Ecochemical interactions between plants and downy mildew pathogen *Plasmopara viticola*. 56th German Plant Protection Conference, 22-

25 September, 2008, Kiel, **Germany**.

85. **Md. Tofazzal Islam** and Andreas von Tiedemann. 2008. Zoosporogenesis and differentiation of grapevine downy mildew pathogen *Plasmopara viticola* in host-free system. A poster presented in APS Centennial Meeting 2008, July 26-30, Minneapolis, **USA**.
86. **Md. Tofazzal Islam**. 2008. Disruption of ultrastructure and cytoskeleton is involved in biocontrol of the damping-off pathogen *Aphanomyces cochlioides* by *Lysobacter* sp. strain SB-K88. 9th International Congress of Plant Pathology, August 24-29, 2008, Torino, Italy. Abstract published in *Journal of Plant Pathology* **90**: S2.116 (**Italy**)
87. **Md. Tofazzal Islam**. Novel bioactive secondary metabolites related to development of the Peronosporomycete soilborne phytopathogens. Chemical Congress of Bangladesh, 22-24 December 2006, Dhaka, **Bangladesh**.
88. Abhinandan Deora, Yasuyuki Hashidoko, **Md. Tofazzal Islam**, Toshiaki Ito, Yuriko Aoyama and Satoshi Tahara. 2005. Ecochemical and biotic interactions of phytopathogens *Aphanomyces cochlioides* and *Pythium aphanidermatum* with bacterial antagonists. International Conference on Sustainable Agriculture, Toronto, **Canada**.
89. **Md. Tofazzal Islam**, Yasuyuki Hashidoko, Abhinandan Deora, Toshiaki Ito and Satoshi Tahara. 2005. *Lysobacter-Aphanomyces* Interactions: an ecological role for biocontrol of damping-off disease. In: *Proceedings of Japan Society for Bioscience, Biotechnology, and Agrochemistry* (JSBBA), Annual meeting 28-30 March 2005, Sapporo University campus, **Japan**.
90. Abhinandan Deora, Yasuyuki Hashidoko, **Md. Tofazzal Islam**, Yuriko Aoyama, Toshiaki Ito and Satoshi Tahara. 2005. Microscopic observations of physiological and morphological changes in the Peronosporomycetes cells evoked by *Pseudomonas* sp. EC-S101. In: *Proceedings of Japan Society for Bioscience, Biotechnology, and Agrochemistry* (JSBBA), Annual meeting 28-30 March 2005, Sapporo University campus, **Japan**.
91. Abhinandan Deora, Yasuyuki Hashidoko, **Md. Tofazzal Islam**, Yuriko Aoyama, Toshiaki Ito and Satoshi Tahara. 2005. Morpho-physiological disorders in damping-off pathogen *Aphanomyces cochlioides* interacting with host rhizoplane bacteria. Jabalpur, India, February 9-12, 2005. In: *Proceedings of the International Conference on 'Sustainable Crop Production in Stress Environments: Management and Genetic Options'* held in JNKVV, Jabalpur, **India**, February 9-12, 2005, p. 119.
92. **Md. Tofazzal Islam**, Abhinandan Deora, Yasuyuki Hashidoko, Toshiaki Ito and Satoshi Tahara. 2005. Evaluation and characterization of some phosphate solubilizing bacteria from the rhizoplane of Rice, Wheat and Tomato Grown in Bangladesh. Jabalpur, India, February 9-12, 2005. In: *Proceedings of the International Conference on 'Sustainable Crop Production in Stress Environments: Management and Genetic Options'* held in JNKVV, Jabalpur, **India**, February 9-12, 2005, p.134.
93. **Md. Tofazzal Islam**, Yasuyuki Hashidoko, Abhinandan Deora and Satoshi Tahara. 2004. Morphological Studies on Beneficial Rhizoplane Bacteria and their Interactions with Host Plants and Soilborne Phytopathogens. In: *Proceedings of Japan Society for Bioscience, Biotechnology, and Agrochemistry* (JSBBA), *Regional (Hokkaido-Kyushu Branch) Conference*, 8-9 October, 2004, Fukuoka, **Japan**, Abstract No. A1a11, p.29.
94. Abhinandan Deora, Yasuyuki Hashidoko, **Md. Tofazzal Islam** and Satoshi Tahara. 2004. Characteristic morphological change and growth inhibition of *Aphanomyces cochlioides* during interaction with rhizoplane bacteria of host plants. In: *Proceedings of Japan Society for Bioscience, Biotechnology, and Agrochemistry* (JSBBA), Annual meeting 28-31 March 2004, Hiroshima University campus, **Japan**, Abstract No. 2A08a12, p 29.

95. **Md. Tofazzal Islam**, Yasuyuki Hashidoko, Abhinandan Deora, Toshiaki Ito and Satoshi Tahara. 2004. Interactions between rhizoplane bacteria and a phytopathogenic Peronosporomycete *Aphanomyces cochlioides* in relation to the suppression of damping-off disease in sugar beet and spinach. In: *Proceedings of IOBC Integration 2004* "Management of plant diseases and arthropod pests by BCAs and their integration in agricultural systems" 9-13 June, S. Michele all'Adige, Trentino, **Italy**, p 117.
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97. **Md. Tofazzal Islam**, Yasuyuki Hashidoko, Abhinandan Deora and Satoshi Tahara. 2004. Morphological studies on beneficial rhizoplane bacteria and their interactions with host plants and soilborne phytopathogens. Proceedings, The JSBBA Regional (Hokkaido-Kyushu Branch) Conference, 8-9 October, 2004, Fukuoka, **Japan**, Abstract No. A1a11, p. 29.
98. **Md. Tofazzal Islam**, Toshiaki Ito and Satoshi Tahara. 2002. Interactions between phytopathogenic oomycete zoospores and host- and nonhost-plants *via* their secondary metabolites. Proceedings, The 3rd World Congress on Allelopathy, 26-30 August, 2002, Tsukuba, **Japan**, Abstract No. P-038, p. 181.
99. Henny Hoo, Yasuyuki Hashidoko, **Md. Tofazzal Islam** and Satoshi Tahara. 2002. Characterization of *Sphingomonas yanoikuyae*, a biofilm-forming bacterium on rhizoplane of spinach (*Spinacia oleracea* L.) seedlings. 2-3 August 2002, Obihiro Agricultural and Veterinary University, Regional Conference of Hokkaido Region, JSBA, **Japan**, Abstract No. B-5.
100. **Md. Tofazzal Islam**, Takashi Shimai and Satoshi Tahara. 2002. Gear-change of the *Aphanomyces cochlioides* Zoospores from Pre-infectious to Infectious Stages Mediated by Host and Non-host Signalling Compounds. Annual conference of Japan Society for Bioscience, Biotechnology and Agrochemistry (JSBA), Sendai, **Japan**, March 24-28. Abstract No. 3-5Dp 15, p. 187.
101. **Md. Tofazzal Islam**, Toshiaki Ito, Yasuyuki Hashidoko and Satoshi Tahara. 2001. Regulated Aggregation of Rhizoplane Bacteria and Phytopathogenic Fungal Zoospores on Spinach Seedlings. The 6th ISRR Symposium, November 11-15, 2001, Nagoya, **Japan**. pp. 432-433.
102. Takashi Shimai, **Md. Tofazzal Islam**, Yasuyuki Hashidoko and Satoshi Tahara. 2001. Studies on Phytochemicals Inducing Morphological Changes of the *Aphanomyces cochlioides* Zoospores. Regional conference of Japan Society for Bioscience, Biotechnology and Agrochemistry (JSBA), June, Hokkaido University, Sapporo, **Japan**.
103. **Md. Tofazzal Islam**, Toshiaki Ito and Satoshi Tahara. 2001. Behavioral and Morphological Diversity of *Aphanomyces cochlioides* Zoospores to Signalling Substances. Annual conference of Japan Society for Bioscience, Biotechnology and Agrochemistry (JSBA), Ritsumeikan University Campus, Kyoto, **Japan**, March 24-26, Abstract No. 1Y6p10, p. 119.
104. **Md. Tofazzal Islam** and Satoshi Tahara. 1999. Dihydroflavonols from *Lansea coromandelica*. Regional conference of Japan Society for Bioscience, Biotechnology and Agrochemistry (JSBA), Hokkaido University, Sapporo, **Japan**, 1-2 October, 1999, Abstract Papers, B-5, p. 30.

Published Course Books in Bangladesh Open University

105. **Soil Science**, Graduate, Co-author, December 1996, Bangladesh Open University, Gazipur-1704, Bangladesh, Bangladesh, 160 pp. (in Bangla).
106. **Forest Nursery**, Graduate, Co-author, December 1998, Bangladesh Open University, Gazipur-

1704, Bangladesh, 100 pp. (in Bangla)

107. **Statistics**, Graduate, Co-author, December 1998, Bangladesh Open University, Gazipur-1704, Bangladesh, 312 pp. (in Bangla).
108. **Agricultural Science**, Certificate, Co-author, December 1996, Bangladesh Open University, Gazipur-1704, Bangladesh.
109. **Introductory Agriculture and Environment**, Graduate, Editor, December 1996, Bangladesh Open University, Gazipur-1704, Bangladesh, 173 pp. (in Bangla).
110. **Seed and Seed Technology**, Graduate, Editor, December 1996, Bangladesh Open University, Gazipur-1704, Bangladesh, 63 pp. (in Bangla).
111. **Plant Nutrition and Fertilizer Management**, Graduate, Editor, December 1997, Bangladesh Open University, Gazipur-1704, Bangladesh, 136 pp. (in Bangla).

Popular Scientific Articles in the Dailies/Magazines

Dr. Islam published more than 70 popular articles on science and education in national dailies and magazines.

Invited Lectures

1. Invited to deliver a talk on '**Ecological chemistry of peronosporomycete zoospores**' on March 29, 2011 at Department of Plant Pathology, Nanjing Agricultural University, Nanjing, China.
2. Invited to deliver a talk on '**Ecochemical interactions between plants and rhizosphere microorganisms**' on March 27, 2011 at University of Nottingham Ningbo Campus, Ningbo, China.
3. Invited to deliver a talk on '**Signaling and interactions between plant and rhizosphere microorganisms**' on March 23, 2011 at Research Center of Eco-environmental Sciences (RCEES), Chinese Academy of Science, Beijing, China.
4. Invited to deliver a talk on '**Biocontrol of oomycete phytopathogens by rhizobacteria: principle and mechanism of action**' on March 22, 2011 at Institute of Tropical Agriculture, University Putra Malaysia, Kuala Lumpur, Malaysia.
5. Invited to deliver a talk on '**Rhizosphere microorganisms and their interactions with plants**' on March 21, 2011 at University of Nottingham Malaysia Campus, Kuala Lumpur, Malaysia.
6. Invited to deliver a talk on '**Ecochemical interactions between plants and rhizosphere microorganisms**' on March 15, 2011 at School of Biosciences, University of Nottingham, UK sponsored by International Strategic Partnership in Research and Education program under the British Council, UK.
7. Invited to deliver a lecture on '**Environment safe sustainable food production by the application of natural resources**' in the seminar on Food Security and Safety organized by Bangladesh Association of Humboldt Fellows on March 5, 2011 at Hotel Sheraton, Dhaka, Bangladesh.
8. Invited to deliver a lecture on '**Potentials for biofunctional microbes and natural products for safe food and medicine**' in the Seminar on *Biotechnology: Participation of Public and Private Enterprise* organized by Hajee Danesh Science & Technology University on January 23, 2011, Dinajpur, Bangladesh.
9. Invited to deliver a lecture on "**Biological control of plant diseases by *Lysobacter* species: principles, mechanisms of action, and future prospects**" in The 4th International Conference for The Development of Integrated Pest Management (IPM) in Asia and Africa to be held on 20-22 January 2011 at Bangladesh Agricultural University, Bangladesh.
10. Invited to deliver a talk on "**Ecological chemistry of peronosporomycete zoospores**" on December 22, 2010 at Department of Genetic Engineering and Biotechnology of Shahjalal University of Science and Technology in Sylhet, Bangladesh.

11. Invited to deliver a lecture on **‘Understanding ecological chemistry of zoospores: potentials for environment-friendly management of the peronosporomycete phytopathogens’** in the 33rd Annual Conference of Bangladesh Chemical Society on December 10-12, 2010 at Jahangirnagar University, Savar, Dhaka, Bangladesh.
12. Invited to deliver a talk on **“Prospects for collaborative research in plant microbiology and biotechnology for sustainability and food security in South Asia”** in the First Kathmandu Humboldt Kolleg, 15-18 November 2010, Kathmandu, Nepal.
13. Invited to deliver a lecture on **‘Fundamentals of instructional design for agricultural education through distance mode’** in Workshop on Curriculum Development and Writing Coursebooks in Agricultural Science for Higher Secondary Certificate Program, October 7, 2010, Bangladesh Open University, Gazipur, Dhaka, Bangladesh.
14. Invited to deliver a lecture titled **‘Adaptation to climate change: food security, water resources, and rural resilience in western Bangladesh’**, at a workshop organized by British Council and University Grants Commission in UGC Seminar Room, on April 29, 2010, Dhaka.
15. Invited to deliver a lecture titled **‘Opportunities and challenges of e-learning in Bangladesh’**, at IT Festival 2009 by Hajee Mohammad Danesh Science and Technology University, on May 10, 2009, Dinajpur.
16. Invited to deliver a seminar lecture titled **‘Biocontrol of damping-off disease by rhizoplane bacteria is linked to characteristic plant colonization and disruption of the cytoskeletal network of the phytopathogens’** at Julius Kuehn Institute, Institute for Biological Control, Darmstadt, Germany on December 10, 2008.
17. Invited to deliver Kolloquium Phytomedizin titled **‘Signal transduction and motility of *Plasmopara viticola* zoospores affected by leaf extract components of *Vitis* species’** at Department of Crop Science, University of Goettingen on October 15, 2008.
18. Invited to give an oral presentation titled **‘Signalling and interactions between plants and phytopathogenic Peronosporomycetes’** in the Centennial Meeting 2008 of the American Phytopathological Society, July 26-30, Minneapolis, USA.
19. Invited to deliver seminar lecture titled **‘Mechanisms of biological control of plant diseases by *Lysobacter* sp. SB-K88’**, at Plant Research International, Wageningen University of Research, on April 10, 2008, Wageningen, The Netherlands.
20. Invited to deliver a Symposium lecture titled **‘Chemical ecology of the zoospores of peronosporomycete phytopathogens’** in the Annual Meeting of International Society for Chemical Ecology, 22-26 July, 2007, Jena, Germany.
21. Delivered a seminar lecture titled **‘Ecochemical interaction between plants and plant pathogenic Peronosporomycetes’** at Institute for Plant Pathology and Plant Protection, May 3, 2007, University of Goettingen, Germany.
22. Invited to give a plenary lecture on **‘Biorational management of soilborne plant diseases: novel approaches for understanding prokaryotic-eukaryotic interactions in the rhizosphere’**, The 4th Hokkaido Indonesian Student Association Scientific Meeting, 20 March 2005, Sapporo International Student House, Toyohira, Sapporo, Japan.
23. Offered to deliver a “Lead Lecture” entitled **‘Understanding of ecochemical interactions between plants and zoospores: potentials for biorational control of the Peronosporomycete soilborne phytopathogens’** in the International Conference on ‘Sustainable Crop Production in Stress Environments: Management and Genetic Options’. 9-12 February 2005, Jawaharlal Nehru Krishi Vishwa Vidyalya, Jabalpur, India.
24. Invited to offer a seminar on **‘Signalling systems between root and rhizoplane microorganisms and their agricultural usage’** at the Department of Agricultural Chemistry, Faculty of Agriculture, Bangladesh Agricultural University, Mymensingh, on 6 February 2005, Bangladesh.
25. Invited to give a seminar lecture entitled **“Ecochemical interactions between plants and phytopathogenic Peronosporomycetes, with special reference to *Aphanomyces cochlioides*”** at Institut für Pflanzenpathologie und Pflanzenschutz at Georg-August-Universität, Göttingen, Germany on 16 June 2004, Germany.
26. Delivered a symposium talk entitled **“Ecochemical interactions between plants and zoospores of the phytopathogenic Oomycete *Aphanomyces cochlioides*”** after receiving the Best Young Scientist Award 2003 from Japan Society for Bioscience, Biotechnology, and Agrochemistry (JSBBA), November 7, 2003, Hokkaido, Japan.

Supervision of Graduate Students and other Scholarly Activities

- **Supervised 12 Masters** and 2 Ph D students.
- **Executive Editor**, *Journal of Agricultural Chemistry and Environment (JACE)*, Society of Agricultural Chemistry and Environment, Dhaka, Bangladesh.
- **Member, Editorial Board**, *Global Journal of Biochemistry* (Simplex Academic Pubs.), *Biotechnology*, *Plant Pathology Journal*, *Journal of Biological Sciences*, *International Journal of Biosciences*, *International Journal of Biodiversity and Environmental Sciences*,
- **Reviewer**, *Journal of Phytopathology*, *Polish Journal of Environmental Studies*, *African Journal of Biotechnology* and some other international journals.

Professional affiliations (Membership)

- *General Secretary (2011-2013) & Life Member*, The Association of Humboldt Fellows in Bangladesh.
- *General Secretary (2011-2013) & Life Member*, The JSPS Alumni Association, Bangladesh.
- *Member*, Japanese University Alumni Association, Bangladesh.
- *Member*, American Phytopathological Society (APS), USA.
- *General Secretary*, Society of Agricultural Chemistry and Environment, Dhaka, Bangladesh.
- *Member*, Japan Society for Bioscience, Biotechnology and Agrochemistry (JSBBA), Tokyo, Japan
- *Member*, International Allelopathy Society (IAS), India
- *Member*, International Organization for Biological and Integrated Control of Noxious Animals and Plants (IOBC), France
- *Member*, International Society for Development of Natural Products (ISDNP), Jamaica
- *Member*, Bangladesh Association for the Scientists and Scientific Professions (BASSP), Dhaka, Bangladesh
- *Member*, Bangladesh Association for the Advancement of Sciences (BAAS), Dhaka, Bangladesh
- *Member*, Bangladesh Krishibid Institution, Dhaka, Bangladesh
- *Member*, Asiatic Society Bangladesh

Administrative, academic and other position (leadership)

- *Member*, Board of Governors (BOG, highest authority of BOU), Bangladesh Open University (BOU), 1997-1998.
- *Member*, Academic Council, BOU.
- *Dean* (in charge), School of Agriculture and Rural Development, BOU.
- *Vice-President* (elected), Shaheed Nazmul Ahsan Hall Sangsad (1991-92), BAU.
- *General Secretary*, Executive Committee of Bangladesh Open University Teachers Association (BOUTA), 1995-1996.
- *Member*, Bangladesh Federation of University Teachers Association in 1995-1996.
- *Member*, Executive Committee of BOUTA in 1996-1997, 2002-2003, 2010-2011.
- *Head* (July 2010 to date), Department of Biotechnology, BSMRAU, Gazipur, Bangladesh.
- *Member* (July 2010 to date), Academic Council, BSMRAU, Gazipur, Bangladesh.
- *Member* (October 2010 to date), Executive Committee, School of Life Science, Shahjalal University of Science & Technology, Sylhet, Bangladesh.

Workshop/Conference/Symposia Participated

1. **Food Security and Safety** organized by Bangladesh Association of Humboldt Fellows on March 5, 2011 at Hotel Sheraton, Dhaka, Bangladesh.
2. **Biotechnology: Participation of Public and Private Enterprise** organized by Hajee Danesh Science & Technology University on January 23, 2011, Dinajpur, Bangladesh.
3. Invited to deliver a lecture on **“Biological control of plant diseases by *Lysobacter* species: principles, mechanisms of action, and future prospects”** in The 4th International Conference for The Development of Integrated Pest Management (IPM) in Asia and Africa to be held on 20-22

- January 2011 at Bangladesh Agricultural University, Bangladesh.
4. **Bangladesh Chemical Congress 2010 (BCC 2010)**, 10-12 December 2010, Jahangirnagar University Campus, Savar, Dhaka, Bangladesh.
 5. **Prospects for collaborative research in plant microbiology and biotechnology for sustainability and food security in South Asia** in the First Kathmandu Humboldt Kolleg, 15-18 November 2010, Kathmandu, Nepal.
 6. International Workshop on **Building Climate Resilient Agriculture in Asia**, 5-6 May 2010, Dhaka, Bangladesh.
 7. **The 56th German Plant Protection Conference**, 22-25 September 2008, Kiel, Germany.
 8. **APS Centennial Meeting**, 26-30 July 2008, Minneapolis, Minnesota, USA.
 9. Symposium Lecture in the Annual Meeting of the International Society for Chemical Ecology 2007 on 22-26 July 2007 hosted by Max Planck Institute of Chemical Ecology, Jena, Germany.
 10. Fifth Annual Regional Meeting of One World South Asia, 23rd – 24th January, 2006 on Knowledge-Based Advocacy for Achieving Millennium Development Goals, Jaypee Palace Hotel, Agra, **India**
 11. International Conference on Sustainable Crop Production in Stress Environments: Management and Genetic Options, 9-12 February 2005, JNKVV, Jabalpur, India.
 12. World Rice Research Conference, 4-6 November 2004, Tokyo/Tsukuba, Japan.
 13. Japan Society for Bioscience, Biotechnology, and Agrochemistry (JSBBA) Meeting, 8-9 October, Fukuoka, Japan.
 14. IOBC Integration 2004 on Management of Plant Diseases and Arthropod Pests by BCAs and their Integration in Agricultural Systems, to be held on 9-13 June 2004, Trentino, Italy.
 15. Annual conference of Japan Society for Bioscience, Biotechnology and Agrochemistry (JSBA), Hiroshima, Japan, 28-31 March, 2004.
 16. The JSBBA Best Young Scientist Award Symposium, Hokkaido, 7 November 2003.
 17. The 3rd World Congress on Allelopathy, 26-30 August, 2002, Tsukuba, Japan.
 18. Second International Symposium and Workshop of the International Society of Natural Product Research and Development, 1-4 July, 2002, Singapore National University, Singapore.
 19. Annual Conference of Japan Society for Bioscience, Biotechnology and Agrochemistry (JSBA), Sendai, Japan, March 24-28, 2002.
 20. The 6th ISRR (International Society for Root Research) Symposium entitled “Roots: The Dynamic Interface between Plants and the Earth”, 11-15 November, 2001, Nagoya, Japan.
 21. Annual Conference of Japan Society for Bioscience, Biotechnology and Agrochemistry (JSBA), 24-27 March, 2001, Ritsumeikan University, Kyoto, Japan.
 22. International symposium and workshop entitled “*Utilization of Natural Products in Developing Countries: Trends and Needs*” 10-28 July, 2000, University of West Indies, Mona, Kingston, Jamaica.
 23. Hokkaido Regional Conference of JSBA, 10-12 June, 1999, Hokkaido University, Sapporo, Japan.
 24. Annual Meeting of the JSBBA, 27 March to 1 April, 1998, Fukuoka, Japan.
 25. Annual Conference of Bangladesh Association for the Advancement of Sciences (1997, 1996, 1995), Bangladesh.

Overview of Funding/Grants Received

Current projects

1. Biological control of soilborne oomycete phytopathogens. A 12-month project (January to December 2011) funded by Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur, Bangladesh.

Total grants: US\$ 1,500 (approx.)

2. Plant growth promoting microorganisms and their usage in low input sustainable agriculture. A 12-month project (June 2010 to July 2011) funded by Ministry of Science & ICT, Government of the People’s Republic of Bangladesh.

Total grants: US\$ 9,500 (approx.)

3. Adaptation to climate change: food security, water resources and rural resilience in western Bangladesh. A 3-year project with University of Nottingham, UK funded by INSPIRE program of the British Council, UK.

Total grants: US\$ 70,000 (approx.)

Successfully completed projects

4. Signal transduction mechanisms of motility and differentiation of peronosporomycete zoospores. A 24-month (April 2007 to March 2009) project was funded by the Alexander von Humboldt Foundation, Germany.

Total grants: US\$ 128,744.00 (approx.) (including monthly fellowship/salary)

5. Signalling systems between root and rhizoplane microorganisms and their agricultural usage. A 24-month (April 2003 to March 2005) project was funded by Japan Society for the Promotion of Science (JSPS), Tokyo, Japan.

Total grants: US\$ 91,663.00 (approx.) (including monthly fellowship/salary)

6. Regulation of motility, taxis, viability and differentiation of zoospores of oomycete phytopathogens by host and nonhost plant secondary metabolites. Five-year project (5 years) (October 1997 to September 2002) co-funded by Ministry of Science, Technology, Sports and Culture (Monbukagakusho) and the Core Research for Evolutionary Science and Technology (CREST) of Japan from 1997-2002.

Total grants: US\$ 152,000 (approx.) (including monthly scholarship).

Media Appearances

- Delivered 9 (nine) lectures through Bangladesh Television (BTV) and 5 lectures through Radio Bangladesh for the distance learning students of Bachelor in Agricultural Education, School of Agriculture and Rural Development, Bangladesh Open University, Bangladesh.
- Attended several interviews by satellite TV and national dailies on science and technology.
- Attended an interview of Deutsche Welle Radio (Bangla) on perspectives of research on understanding interactions between grapevine plants and downy mildew pathogen *Plasmopara viticola*.
- Published more than 70 articles and commentaries in national dailies and science magazines on current science, technologies and e-learning.

Language Proficiency

English: Excellent in reading, writing and speaking

Bengali: Excellent in reading, writing and speaking

Japanese: Very good in speaking, good at reading and writing

Arabic: Very good in reading, moderate in writing and speaking

German: Very good in reading and writing, and moderate in speaking.

Computer Skills

Expert and proficient in using all common soft-wares and databases including MS Word, Excel, Power Point, Adobe Photoshop, ChemOffice, ClarisWorks, and Statistical Analysis System (SAS).

References

1. Professor Dr. Andreas von Tiedemann

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4. Dr. Shariff Enamul Kabir

Professor, Chemistry, &
Vice Chancellor, Jahangirnagar University, Savar, Dhaka
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5. Dr. M. Afzal Hossain

Professor, Biochemistry, &
Vice Chancellor
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