Dr. Jebunnahar Khandakar

Email:dr.khandakar2012jp@gmail.com
khandakar@iub.edu.bd

Education

Nagasaki University, Nagasaki, Japan
2013 Ph.D Biotechnology
"*Iron Homeostasis and Metabolic Alteration in Hyoscyamusalbus Roots under Iron Deficiency*."
Thesis Advisor:Professor Dr. Yoshie Kitamura

Bangladesh Agricultural University, Mymensingh, Bangladesh
2005 MS Biotechnology and Genetic Engineering "*Effect of Substrate Sterilization for the Production of Oyster mushroom "Pleurotusostreatus*""
Thesis Advisor: Prof. Dr. Khondoker Md. Nasiruddin

Bangladesh Agricultural University, Mymensingh, Bangladesh
2003 B.Sc. Faculty of Agriculture

Muminunnisa Govt. Mohila College, Mymensingh, Bangladesh
1997 H.Sc Science

Employment Experience

Independent University, Bangladesh (IUB), Bashundhara, Dhaka,
School of Life sciences
Assistant Professor, September, 2016 – Present

The United Nations Convention to Combat Desertification (UNCCD)
Department of Environment, E-16 Agargaon, Dhaka-1207, Bangladesh
Junior Consultant , June, 2014 – December, 2014

Ministry of Agriculture, The People's Republic of Bangladesh
***Mushroom Development Officer (Deputation*)**, August, 2006 - March, 2010

Academic Appointments

Department of Food Technology, State University, Bangladesh
Adjunct Assistant Professor, Tenure: May, 2014 – December, 2014

Graduate School of Science and Technology Nagasaki University, Japan,
Faculty of Environmental Science,
Research Assistant, Tenure: April, 2010- February, 2014

Graduate School of Science and Technology Nagasaki University, Japan,
Faculty of Environmental Science,
Teaching Assistant , Tenure: April, 2010-August, 2013

Research Expertise

- Extensive expertise on a number of biotechnological approaches such as Proteomic, Protein/DNA/mRNA extraction and analysis, SDS-PAGE, Gene cloning, RT-PCR, Secondary metabolite assay, Enzyme assay, Plant Cell, organ and tissue culture, HPLC analysis, Confocal microscopic analysis
- Extensive expertise on a number of statistical packages such as SPSS 16.

Honors/Awards

- Student Scholarship, Graduate School of Science and Technology, Nagasaki University,Japan, 2010-2012
- YE GUO XI Scholarship, Ye Guo Xi foundation, China, 2012-2013.

Research

Over the last decade, she has been involved in teaching and research &development programs in the high standards international academia and laboratories in Japan and Bangladesh. She has been designed research protocols and supervised a good number of Masters Students. When she was a research scholar at Nagasaki University, she had opportunity of teaching for a variety of courses particularly molecular and cell biology, and biochemistry at undergrad and graduate students at Nagasaki University. At IUB, her major research interests in the area of Plant Disease Pathogenesis, Molecular Plant Breeding, and Plant Tissue Culture.

Publications

1. **J. Khandakar,** K. Yamaguchi, M. Shibata-yamawaki, A. Higa, A. Sako, T. Oda, and Y. Kitamura. Use of bead-beating and acid guanidiumthiocyanate-phenol-chloroform methods to prepare protein samples for high-resolution two-dimensional gel electrophoresis and high-sensitive MALDI-Mass Spectrometry from root tips of the medicinal plant, *Hyoscyamusalbus*, Bioscience, Biotechnology, Biochemistry, (Under submission)
2. **Sako A,** Kandakar J, **Tamari N, Higa A, Yamaguchi K, Kitamura Y.** Copper excess promotes propagation and induces proteomic change in root cultures of Hyoscyamusalbus L. Plant Physiology and Biochemistry,2016, 103, 1-7 2.

3. **J.Khandakar,** I. Haraguchi, K. Yamaguchi and Y. Kitamura, Small-scale proteomic approach reveals reduction of alkaloid biosynthesis in Hyoscyamusalbus roots under iron deficiency, Frontiersin Plant Science. 4**:**331,doi: 10.3389/fpls.2013.00331
4. **J. Khandakar,** M. S. Islam, T. Nakamura, K. Sera, T. Takatsuji, and Y. Kitamura, Health risk assessment of arsenic and other heavy metalsfromvegetables grown in Banglish village, Bangladesh, International Journal of PIXE, 2014, 22 (3& 4), 287-289.
5. A. Higa, **J.Khandakar,**Y. Mori, Y. Kitamura, Increased de novo riboflavin synthesis and hydrolysis of FMN are involved in riboflavin secretionfrom Hyoscyamusalbus hairy roots under iron deficiency, Plant Physiology and Biochemistry, 58, pp.166-73, Sep., 2012.
6. M. S. Islam, **J. Khandakar,** T. Takatsuji, T. Nakamura, and K. Sera, Influence of demographic factors on arsenic accumulation in human populations: Cases of two arsenic affected villages in Bangladesh,International Journal of PIXE, 22(1&2), pp. 131-137, Sep., 2012.
7. M. S. Islam, **J. Khandakar,** T. Nakamura, K. Sera, and M. M. H. Khan, Estimation of hair arsenic levels in Bangladeshi population: Influence of demographic factors on arsenic accumulation in human. International Conference on Environmental Engineering and Applications-ICEEA, Singapore, pp. 177 – 180, Sep., 2010.
8. **J. Khandakar,** S. Yesmin, S.M.R. Amin, M. S. Islam, and A.T.M.Z. Raihan, Performance of commonly used pasteurization technique for the production of oyster mushroom (*Pleurotusostreatus*) in Bangladesh, International Journal of BioRes., 8(1), pp. 31– 34, Jan, 2010.
9. **J. Khandakar,** M.Nazimuddin, N. C. Sarkar, M. A. Basunia, M. A. Khan, and A. S. Khan, Effect of culture media and environmental factors on the mycelial growth of *Grifolafrondosa*, Bangladesh Journal of Mushroom. 3(1), pp. 15-20, July, 2009.
10. N. J. Shelly, S.M. R. Amin, M.M. Nuruddin, K.U. Ahmed, and **J. Khandakar,**Comparative study on the yield and yield related attributes of some newly introduced strains of *Pleurotuscystidiosus*with*Pleurotusostreatus* (PO_2),Bangladesh Journal of Mushroom, 3(1), pp. 67-72, July, 2009.
11. **J. Khandakar**, S. Yesmin, and M. Moonmoon, Mycelial growth of *Pleurotuscitrinopileatus* on different culture media and environmental conditions. Bangladesh Journal of Mushroom, 2 (2), pp. 55-61, Dec., 2008.
12. **J. Khandakar**, S. Yesmin, N. C. Sarker and S.M. R. Amin, Effect of media on mycelial growth of edible mushrooms. Bangladesh Journal of Mushroom, 2 (1), pp. 53-56, July, 2008.
13. N. J. Shelly, S.M. R. Amin, M.M. Nuruddin, K.U. Ahmed, and **J. Khandakar,** Comparative Study on the Nutritional Composition of *Pleurotusostreatus* and Some Strains of *Pleurotuscystidiosus*, Bangladesh Journal of Mushroom, 2(2), pp. 89-94, Dec. 2008**.**
14. N. J. Shelly, S.M. R. Amin, M.M. Nuruddin, K.U. Ahmed, and **J. Khandakar,**Comparative Study on the Yield and Yield Related Attributes of Some Newly Introduced Strains of *Pleurotuscystidiosus*with*Pleurotusostreatus* (PO_2). Bangladesh J. Mushroom. 3(1): 67-72.
15. M. Moonmoon, S.M. R. Amin, N. C. Sarker, **J. Khandakar,** and N. Alam, Performance of different substrate on the growth and yield of *Volvariellavolvacea*(Bull. ex. Fr.) Sing, Bangladesh Journal of Mushroom, 2(1), pp. 47-51. July,2008.
16. **J. Khandakar**, S. M. R. Amin, N. C. Sarker, S. Kamal, and M. Shahin,Performance of bag size and spawning method on yield and yield attributes of *Agaricusbisporus* (Lange) Singer, Bangladesh Journal of Mushroom, 1(2), pp. 63-66, July, 2007.
17. S. M. R. Amin, N. C. Sarker, N. Alam, **J. Khandakar,** and K. Khan. Performance of different supplements to sawdust substrate and their levels on the growth and yield of *Pleurotusostreatus* (Jacquin ex Fr.) Kummer, Bangladesh Journal of Mushroom, 1(1), pp. 6369, July, 2007.

Books

Training Manual (In Bangla)

- S.M. R. Amin, N. C. Sarker, M. Moonmoon and **J. Khandakar,** Mushroom Training manual for Officers. pp. 1□60, 2008.
- S.M. R. Amin, N. C. Sarker, M. Moonmoon and **J. Khandakar,** Mushroom Training manual for Entrepreneur and farmers. pp. 1□40, 2008.
- S.M. R. Amin , N. C. Sarker, M. Moonmoon and **J. Khandakar,** Winter Mushroom cultivation. pp. 1□35, 2007.

Bulletin

J. Khandakar, 2009. Agrojattray Mushroom. In: Ahmed S. (Ed.) pp.1-23

Review book

Mushroom Cultivation Text Book of Junior School Certificate Programme (JSC) Open University Bangladesh for class six-eight. 2006.

Conference Papers and Presentations

International Conference of Plant Biotechnology,Japanese Society for Plant Cell andMolecular Biology, September 9-12, 2011,Kyushu University, Japan

International Conference of Plant Biotechnology,Japanese Society for Plant Cell andMolecular Biology, October 9-12, 2013,Hokkaido University, Japan.