



## Curriculum Vitae

### Contact information

Surname(s) / First name(s)

**MD ASRAFUL JAHAN**

Present Address(es)

Graduate Research Assistant  
3421, New Agricultural Sciences Building  
West Virginia University  
Morgantown, WV 26506-6108

Permanent Address(es)

Faculty  
Department of Genetic Engineering and Biotechnology  
Shahjalal University of Science and Technology  
Sylhet-3114, Bangladesh

Telephone(s)

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### Career Objectives

Highly motivated to build up career in Plant Genetics and Genomics, Plant Biotechnology, Plant Molecular Biology and molecular Physiology.

### Research and Work Experiences

#### Research Activities

##### Dates

**From 17 August, 2015 – Present**

Occupation or position held

Graduate Research Assistant

Main activities and responsibilities

Performing research in the field of Plant Genetics (Metabolic Engineering in soybeans) under the direction of Dr. Kovich, Data analysis, Provide assistance with supervision of undergraduate student workers etc.

Name and address of employer

Genetics and Developmental Biology PhD Program  
Department of Plant and Soil Sciences  
Davis College of Agriculture, Natural Resources and Design  
West Virginia University

##### Dates

**From 28 October 2007 – 12 August, 2015**

Occupation or position held

Faculty Member

Main activities and responsibilities

Academic Teacher, Research Supervisor, Co-supervisor, Assistant Coordinator

Teaching Interest

At the undergraduate level, I teach Genetics branch, that covers classical, bacterial and molecular genetics. I also teach Plant Breeding, Plant Biotechnology, Recombinant DNA Technology, Molecular Biology, Medical and Pharmaceutical Biotechnology, Pharmacognosy and Pharmacology, Cytology and Cytogenetics, Basic Plant Sciences at the undergraduate level.

At the graduate level, I teach Advanced Plant and Agricultural Biotechnology and Bionanotechnology and direct graduate research. In addition to teaching genetics and biotechnology at various levels, I am interested in providing research experiences for undergraduates, maximizing student diversity in the sciences, and pursuing aspects of science education and pedagogy.

**Research Directed**

Some students completed thesis works on the following titles under my supervision:

- i. Development of Effective Plant Regeneration Protocol and Agrobacterium-Mediated genetic transformation in Sticky Rice variety Berion
- ii. Production and optimization of extracellular amylase enzyme from newly isolated *Bacillus* sp. for removal of sizing materials from cotton based fabrics.
- iii. *In silico* epitope identification and characterization for human vaccine against nipah and hendra viruses
- iv. Identification and Antibioqram of Fungi Causing *Onychomycosis*
- v. Production and Characterization of Protease from *Serratia marcescens* and its Application in Raw protein Degradation
- vi. Genetic Effects of the Dwarfing Genes on Culm Anatomy and Evaluation of some Yield Contributing Traits in Bread Wheat (*Triticum aestivum* L.)
- vii. Comparative Genetic Effect of the Dwarfing Genes on Some Morpho-Physiological Traits and the Regeneration Responses of Bread Wheat
- viii. Genetic Effect of Dwarfing Genes on Lodging Resistance in Bred Wheat
- ix. Purification and Molecular Characterization of Raw Protein Degrading extracellular protease from *Bacillus* and *Pseudomonas* isolates
- x. Production of Microbial Lipids from *Lipomyces starkeyi* using Rice Straw Hydrolysates as medium. *etc.*
- xi. Micropropagation of Bangladeshi Local Rice Variety Chinigura (*Oryza sativa* L.) through Embryonic Callus Culture.

**Project Co-investigator**

Molecular Detection and Multidrug Resistance in Bacteria causing Urinary Tract Infection.

**Name and address of employer**

Department of Genetic Engineering and Biotechnology, Faculty of Life Sciences,  
Shahjalal University of Science and Technology,  
Sylhet-3114, Bangladesh.  
Telephone : +880 821 714479, 717850, 713850 Ext.411  
Fax : +880 821 715257, 725050  
Website www.sust.edu

**Education and Training****Total Schooling 19 Years****Dates**

**Session Attended From July 2006 – June 2008**

Title of qualification awarded

Master of Philosophy (M.Phil.) in Biological Sciences

Principal subjects/occupational skills covered

Thesis Title: Genetic Impact of the Dwarfing Genes on Some Morpho-physiological and Anatomical Traits in Bred Wheat

Name of organisation

Institute of Biological Sciences, University of Rajshahi, Bangladesh.

Level in national or international classification

A Graduate Research Degree

Result published

08 May 2011

Result obtained

Awarded

**Dates**

**Session attended From January 2003 – December 2003**

Title of qualification awarded

Master of Science in Genetics and Breeding

Main subjects studied	Biotechnology and Molecular Genetics, Genetics and Cytogenetics, Human Genetics and Genetic Counseling, Biometrics and Biometrical Genetics, Horticulture, Agronomy, Plant Breeding, Animal Breeding. Thesis Title: Influence of the Dwarfing Genes on Culm Anatomy in Bred Wheat
Name and type of organisation	Department of Genetics and Breeding (New Name: Department of Genetic Engineering and Biotechnology,) University of Rajshahi, Rajshahi-6205, Bangladesh, Type - Public University.
Level in national or international classification	Course and Research-based Graduate Degree
Result published	11 February 2006 (Late due to session jam of the University)
Result/Grade obtained	<b>First Class (Top Grade) First Position in the Department of Genetics and Breeding.</b>
<b>Dates</b>	<b>Session attended From January 1999 – December 2002</b>
Title of qualification awarded	Bachelor of Science (Honours) in Genetics and Breeding
Main subjects studied	Genetic Engineering, Molecular Genetics, Molecular Biology, Cytogenetics & Genome Analysis, Immunogenetics, Basic Genetics, Cell Biology, Microbiology (Fungi, Bacteria Virus & Plasmids), Human Genetics & Genetic Counseling, Plant Tissue Culture, Plant Breeding, Breeding for Disease Resistance, Breeding for Pest Resistance, Biometrical Genetics, Biotechnological Inventions in Plant and Animals, Animal Breeding, Population Genetics, Plant Anatomy, Taxonomy & Economic Botany, Embryology & Plant Propagation, Plant Ecology and Physiology, Biodiversity, Plant Pathology, Experimental Design, Ecological Genetics & Evolution, Biochemistry-I: Physical & Organic Chemistry, Biochemistry-II: Biomolecules & Metabolism, Biochemistry-III: Nutrition, Zoology-I: Introduction to Animal Kingdom, Zoology-II: Embryology, Anatomy, Evolution & Ecology, Zoology-III: Pest, Predators and Parasites, Biostatistics and Computer Applications.  Thesis Title: Direct Plant Regeneration through <i>in vitro</i> Leaf Blade Base Culture and Artificial Pollen Germination of Bitter Gourd ( <i>Momordica charantia</i> L.)
Name and type of organisation	Department of Genetics and Breeding (New Name: Department of Genetic Engineering and Biotechnology,) University of Rajshahi, Rajshahi-6205, Bangladesh, Type - Public University.
Level in national or international classification	Course and Research-based Undergraduate Degree
Result published	01 July 2004 (Late due to session jam of the University)
Result/Grade obtained	<b>First Class (Top Grade) First Position (among 343 students)</b> in the Faculty of Life and Earth Sciences.
<b>List of Academic Awards, Scholarships/Fellowships</b>	Achieved by -
Research Award	I. The research article entitled "Molecular Cloning and Sequence and 3D models Analysis of the Sec61 $\alpha$ Subunit of Protein Translocation Complex of <i>Penicillium ochrochloron</i> " has been awarded as the best research article in Biological Science category in Bangladesh in 2011 by University Grants Commission of Bangladesh. And I was one of the co-author.

Academic Awards

1. I was awarded the highly prestigious national merit award called the **Prime Minister Gold Medal Award'2005**, which was conferred by Honorable Prime Minister of Bangladesh Begum Khaleda Zia for the excellent result (First Class First Position among 343 students) in the Faculty of Life and Earth Sciences, University of Rajshahi. Sponsored by the University Grants Commission of Bangladesh (UGC).
2. **Aghrani Bank Gold Medal Award' 2009**, conferred by Professor Dr. Alauddin Ahmed, Education, Social Development and Political Affairs Advisor of the Honorable Prime Minister of Bangladesh Sheikh Hasina for the excellent result (First Class First in Position) in the Faculty of Life and Earth Sciences.
3. **Shah Makhdum Hall Gold Medal Award' 2005**, bestowed by Honorable Vice-Chancellor of the University Rajshahi for the excellent result in B.Sc. (Hon.) examination.
4. **Rajshahi University Award for BSc**, for securing 1<sup>st</sup> position (First class First) in Bachelor of Science (Honors) Examination of the Department of Genetics and Breeding, University of Rajshahi.
5. **Rajshahi University Award for MSc**, for securing 1<sup>st</sup> position (First class First) in Master of Science (Thesis) Examination of the Department of Genetics and Breeding, University of Rajshahi.

Scholarships / Fellowships

- i. **Dutch-Bangla Bank M Phil Fellowship (2007-2008)** - awarded by the Governor of Bangladesh Bank Dr. Saleh Uddin Ahmed Sponsored by Dutch-Bangla Bank Foundation.
- ii. **Rajshahi University M Phil Fellowship (2006-2007)** - awarded by the Institute of Biological Sciences, Rajshahi University.
- iii. **University Grants Commission of Bangladesh (UGC) Merit Scholarship** - for securing First Class First Position among 343 students in the Faculty of Life and Earth Sciences of the University of Rajshahi in B.Sc. (Honours) Examination 2002, Sponsored by University Grants Commission of Bangladesh.
- iv. **Rajshahi University Scholarships** at the undergraduate level in the academic years of 1999, 2000, 2001 and 2002.
- v. Junior Scholarship in Class VIII

## List of Published Journal Articles

1. Abul kalam Azad, Abu Yousuf, Atia Ferdous, Md Mahbub Hasan, Md. Rezaul Karim and **Md Asraful Jahan** (2014). Production of Microbial Lipids from Rice Straw Hydrolysates by *Lipomyces starkeyi* for Biodiesel Synthesis. *J of Microb & Biochem Technol* S8:008. doi: 10.4172/1948-5948.S8-008.
2. **Md Asraful Jahan**, MM Hasan, A Ferdoush, JS Tahia and MS Hossain (2012). Genetic influence of the dwarfing genes on some morpho-physiological traits associated with yield in bread wheat. *Bangladesh Journal of Crop Science*. Vol (22 &23): 25-32
3. **Md Asraful Jahan**, Md. Khaled Saifullah, Mushfiqur Raman Chowdhury, Shahina Begom, and Md. Shahadat Hossain (2012). *In vitro* Propagation of Embryonic Explants of Satkara (*Citrus macroptera* Montrouz). *Int. J. of Sustain. Crop Prod. (IJSCP)*, 7(1): 19-24 February 2012.
4. Abul Kalam Azad, **Md Asraful Jahan**, Md. Mahbub Hasan, Takahiro Ishikawa, Yoshihiro Sawa, and Hitoshi Shibata (2011). Molecular Cloning and Sequence and 3D models Analysis of the Sec61 $\alpha$  Subunit of protein translocation Complex of *Penicillium ochrochloron*. *Biocmemistry and Molecular Biology Reports*. 2011.11.30; Vol. 44 (11): pp719-724.
5. Abu Yousuf, Mozammel Hoque, **Md Asraful Jahan**, Domenico Pirozzi (2012). Technology and engineering of biodiesel production: A comparative study between microalgae and other non-photosynthetic oleaginous microbes. *International Review of Chemical Engineering - Rapid Communication*; Nov 2012, Vol. 4 Issue 6, p624
6. **Md Asraful Jahan**, Shahina Begum, Khaled Saifullah (2012). Micropropagation of Bangladeshi Local Rice Variety Chinigura (*Oryza sativa* L.) Through Embryonic Callus Culture. *Int. J. of Sustain. Crop Prod. (IJSCP)*.
7. **M. A. Jahan**, M. M. Hasan, A. ferdoush and M.S. Hossain (2009). Genetic Effect of the Dwarfing Genes on Some Culm Characteristics Associated with Lodging Resistance in Bread Wheat. *J. Bangladesh Soc. Agric. Sci. Technol.* 6(3&4): 213-217
8. **M. A. Jahan** and B. Sikdar (2007). Study of Pollen Biology through In vitro Pollen Germination of Bitter Gourd (*Momordica charantia* L.). *Indian Biologist*, Vol. 39(1), 45-50
9. **M. A. Jahan**, M. S. Hossain, M. Khalekuzzaman, N. Joarder and M. M. Rahman (2006). Detection of the GA-insensitive Dwarfing Genes and Their Effect on Early Vigor in Bread Wheat (*Triticum aestivum* L.). *J. Bangladesh Soc. Agric. Sci. Technol.* 2(3&4): 213-218
10. **M. A. Jahan**, M. Shafiullah and B. Sikdar (2004). Direct Organogenesis from the Base of Leaflet Explants of bitter Gourd (*Momordica charantia* L.). *Bangladesh j. genet. biotechnol.* 5 (1 &2): 81-82
11. M. Khalekuzzaman, A. C. Deb, M. R. Islam and **M. A. Jahan** (2007). Study of Genetic Variation, Association and Path Analysis in Maize (*Zea mays* L.). *Intl. J. BioRes.* 2(4):15-19.
12. B. Sikdar A. K. M. N. Huda and **M. A. Jahan** (2004). Plant Regeneration from Immature Embryo of *Momordica charantia* L. *J. Sci. Foundation*, 2(2): 67-70
13. **M. A. Jahan**, M. S. Hossain, M. Khalekuzzaman and M. M. Hassan (2007). Comparative Genetic Effect of Dwarfing Genes on Yield and Yield Contributing Traits in Bread Wheat (*Triticum aestivum* L.) *Progressive Agriculture*, 18(2):49-55
14. M. H. Rashid, M. S. Hossain, M. K. Khalekuzzaman, **M. A. Jahan** and Paul NK (2007). Effect of the soil moisture on grain yield and yield attributes of barley (*Hordium vulgare* L.). *J. Bangladesh Soc. Agric. Sci. Technol.*, 4(3&4):9-12

**Seminar/Conference attended**

1. Workshop on "Biotechnology for Food Security and Farmers' Prosperity". Organized by The Cornell University and USDA. venue: Dhaka, Bangladesh on 28 Nov. 2012.
2. International Conference on "Biotechnology for Better Tomorrow" 2013, The conference held at University of Rajshahi in March 2013.
3. Young Biotechnologist Bangladesh 3<sup>rd</sup> National Congress 2012. Venue: Sylhet, Bangladesh, Organized by: Department of Genetic Engineering and Biotechnology, Shahjalal University of Science and Technology.
4. International Conference on Plant Tissue Culture (2010). Venue: Rajshahi, Bangladesh. Organized by the Department of Botany, University of Rajshahi.
5. International Biotec. Conference (June, 2008), I had presented a paper entitled "In vitro propagation from nodal segment and shoot tip explants of *Adhatoda vasica* Nees". Venue: Dhaka, Bangladesh, Organized by: Bangladesh Biotechnology Information Center.
6. Development of the National Bio safety Framework Project (2007). Venue: Rajshahi, Bangladesh. Organized by: Department of Environment, The Peoples Republic of Bangladesh.

**Social Skills and Competences**

Achieved by-

1. 2011- Co-founder of "Darun Noor Cadet Madrasha", a High School Level Academic Institution, more than 500 poor and underprivileged students are studying there.
2. 2008-Treasurer, Department of Genetics Society, Shahjalal University of Science and Technology, Sylhet-3114, Bangladesh.
3. 2005- Founder and Chairman of "Chhatra Kalyan Trust Kinder Girten" where more than 250 poor and rural deprived and underprivileged students are studying there.
4. 2004- Founder and Chief Adviser of "Chhatra Kalyan Trust"-a social organization devoted to enhance and promote education in rural area in Bangladesh, economically help the poor students to carry on their studies.
5. Assistant Secretary of Genetics and Breeding Society, University of Rajshahi, Bangladesh.

**Organisational skills and competences**

Achieved by-

1. Actively participate in organization of 3<sup>rd</sup> Young Biotechnologist Bangladesh Conference, 2012 in Shahjalal University of Science and Technology, Sylhet, Bangladesh
2. In 2004, I established a voluntary and social welfare organization called "Students Welfare Trust" with the help of some boys to promote education. In 2006, we set up a Kindergirten (primary school) in the rural areas to educate underprivileged rural children. We also established another primary school in 2011. More than 600 students are studying in these institutions.
3. Always I used to play an important role in organizing conferences, seminars, cultural programs in my employer University.

Date: 15 July, 2016



(Md Asraful Jahan)