

Curriculum vitae of

Dr. Shahanaz Sultana

PhD in Genetic Engineering & Molecular Biology

Senior Scientific Officer

Biotechnology Division

Bangladesh Rice Research Institute (BRRI)

Gazipur, Bangladesh

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PERSONAL DETAILS:

Full Name : Shahanaz Sultana
Nationality : Bangladeshi
Date of Birth : 30.08.1971
Place of Birth : Tangail, Bangladesh
Marital Status : Married
Sex : Female

Correspondence Address:

Dr. Shahanaz Sultana
Senior Scientific Officer
Biotechnology Division
Bangladesh Rice Research Institute (BRRI)
Gazipur-1701, Bangladesh

FIELD OF SPECIALIZATION:

Rice breeding, Tissue culture, Molecular biology, Genetic Engineering in rice, Marker Aided Selection (MAS) and Marker Aided backcross (MAB)

ACADEMIC DETAILS:

Doctor of Philosophy (Ph. D)	2010	Universiti Putra Malaysia (UPM), Malaysia	Genetic Engineering and Molecular Biology Dissertation: Towards the Development of Salt Tolerant Rice Varieties by Overexpressing cDNAs from a Mangrove Plant <i>Acanthus ebracteatus vahl</i>
Masters of Science	1998	Bangladesh Agricultural University, Bangladesh	Genetics and Plant Breeding Thesis: Study of Genotypic Variation for Yield and Phosphorus Efficiency of Wheat under Water and Phosphorus stress
Bachelor of Science	1992	Bangladesh Agricultural University, Bangladesh	Agriculture
Higher Secondary Certificate (HSC)	1988	Rifles Public School and College, Dhaka, Bangladesh	Field of Study : Science (Physics, Chemistry, Botany, Zoology)
Secondary School Certificate (SSC)	1986	Rifles Public School and College, Dhaka, Bangladesh	Field of Study : Science

ADDITIONAL ACADEMIC COURSES:

Courses	Year	Universities
Bio-Informatics Methods I	2014	University of Toronto

EMPLOYMENT HISTORY:

Position : **Senior Scientific Officer**
Organization : Bangladesh Rice Research Institute
Address : Gazipur-1701, Bangladesh.
Web site : www.brri.org
Period : July 2006 to date

Key responsibilities:

- Research program development, execution and scientific report writing.
- Guide and support to the junior scientist/ laboratory staff.
- Conduct technical training for junior scientist /laboratory staff.
- Supervise the Master Degree student's research project.
- Contribute, and where necessary lead relevant scientific meetings /seminar /workshop.
- Undertake any other duties relevant to the program of research.

Position : **Visiting Scholar**
Organization : Arcadia Biosciences Inc.
Address : 202 Cousteau Place, Suite 200, Davis, CA 95618, USA
Web site : www.arcadiabio.com
Period : December 2013 to June 2014

Key responsibilities:

- Research program execution
- Contribute, and where necessary lead relevant scientific meetings /seminar /workshop.
- Undertake any other duties relevant to the program of research.

Position : **Project Director**
Organization : Bangladesh Rice Research Institute
Address : Gazipur-1701, Bangladesh.
Web site : www.brri.org
Period : May 2011 to June 2013

Key responsibilities:

- Project Management and report writing.
- Project evaluation and monitoring.
- Financial/budget management, while maintaining compliance with all applicable requirements and regulations

Position : **Scientific Officer**
Organization : Bangladesh Rice Research Institute
Address : Gazipur-1701, Bangladesh.
Web site : www.brri.org
Period : August 1998 to June 2006

Key responsibilities:

- Research program execution and scientific report writing.
- Contribute, and where necessary lead relevant scientific meetings /seminar /workshop.
- Undertake any other duties relevant to the program of research.

IN –SERVICIS WORKSHOP AND TRAINING COURSES ATTENDED:

Name of the Course	Institution	Year
Manpower Development Program on Real Time PCR (7500 Fast)	Life Technologies Holdings Pte Ltd, Singapore	2013
Seed Industry Program(SIP)	Hyderabad, India	2011
Genomics and Bioinformatics for Agricultural Applications	Universiti Putra Malaysia, Malaysia	2010
Molecular Methods of Breeding	Keseseart University, Thailand	2004
Training on Marker Aided Selection	International Rice Research Institute (IRRI), Philippine	2002
Foundation training	Bangladesh academy for Rural Development (BARD), Bangladesh	2000
Training on Biotechnology	University of Western Sydney, Australia	1999
Rice Production, Office Management and Communication	Bangladesh Rice Research Institute (BRRI), Bangladesh	1998

AWARDS:

1. Awarded **Gold medal** in “Invention, Research and Innovation Exhibition 2012 (PRPI)” for Research project entitled “Overexpression of Monodehydroascorbate Reductase from a Mangrove Plant (AeMDHAR) Confers Salt Tolerance on Rice”. Universiti Putra Malaysia, Malaysia.
2. Awarded “**Post Graduate Fellowship**” from “Organization for Women in Science for the Developing World (OWSDW). Formerly Third World Organization for Women in Science (TWOWS)” Trieste – Italy, to pursue Ph D degree in Universiti Putra Malaysia, Malaysia.
3. Awarded “**National Science and Technology Fellowship**” to pursue MS degree in Bangladesh Agricultural University, Bangladesh.

COMPUTER LITERACY

Proficient in Microsoft Word, Excel, XP and Power Point and have experience of using Adobe photoshop. I have knowledge on various bioinformatics program also.

RESEARCH INTEREST

Bioinformatics, comparative genetics, functional genomics, and environmental control of plant stress tolerance.

LIST OF PUBLICATIONS

Citation Indexed Journal

No.	Journal	Impact Factor
1	Roy, R.K., Majumder, R.R., Shahanaz Sultana , Hoque, M.E. and Ali, M.S. (2015). Genetic Variability, Correlation and Path Coefficient Analysis for Yield and Yield Components in Transplanted Aman Rice (<i>Oryza sativa</i> L.). <i>Bangladesh Journal of Botany</i> , 0253-5416, (under review)	0.38 (2013)
2	Shakil, M S K., Sultana, S. , Hasan, M.M., Hossain, M.M., Ali M.S. and Prodhan S.H. (2015). SSR Marker Based Genetic Diversity Analysis of Modern Rice Varieties and Coa7stal Landraces in Bangladesh. <i>Indian Journal of Biotechnology</i> . 0975-0967. Vol 14: pp33-4	0.510 (2013)
3	Shahanaz Sultana , S.-E. Ooi, C.-L. Ho, S. Napis, Dolezal K. and Namasivayam P. (2014). Molecular cloning of a putative <i>Acanthus ebracteatus</i> - 9-cis epoxycarotenoid deoxygenase 3(AeNCED) and its overexpression in rice. <i>Journal of Crop Science and Biotechnology</i> , 14975-9479, v4 : pp239 – 246	ISI
4	Morshed, M.M., Rosli B. M., Samsuri Abd. W., Sultana, S. and Dzolkhifli, O. (2012). Determination of paraquat emitted in the air after its application during the rice growing seasons in Sungai Besar, Malaysia. <i>Fresenius Environmental Bulletin</i> 1018-4619, v 21(1): pp181 –190.	0.641 (2012)
5	Shahanaz Sultana , Choy-yuen Khew, M. M. Morshed, Parameswari Namasivayam, Suhaimi Napis and Chai-Ling Ho. (2011). Overexpression of monodehydroascorbate reductase from a mangrove plant (<i>AeMDHAR</i>) confers salt tolerance on rice. <i>Journal of Plant Physiology</i> (ISSN- 0176-1617), v.169: pp.311-318.	2.77 (2013)
6	Mohiuddin, A.K.M., Shahanaz Sultana , Ferdous, J. and Karim, N.H. (2011). Recovery of green plantlets from albino shoot primordia derived from anther culture of indica rice (<i>Oryza sativa</i> L.). <i>Tropical Life Sciences Research</i> . 2180-4249 , v. 22(1):pp1-12	SCOPUS
7	Mohiuddin, A.K.M., Shahanaz Sultana , Ferdous, J. and Karim, N.H. (2006). Increased Regeneration Efficiency in Seed Derived Callus of Rice (<i>Oryza sativa</i> L.). <i>Plant Tissue Culture and Biotechnology</i> (ISSN 1817-3721 (Print, 1818-8745(online)), v. 16(1): pp 45-52.	SCOPUS
8	Sultana S. , Islam, M. A., Islam, M. R., Morshed, M. M. and Islam, M. R. (2002). Correlation and Regression Analysis for Heading Date, Yield and Yield Contributing Characters in Wheat under Water and Phosphorus Stress. <i>Pakistan Journal of Biological Sciences</i> (ISSN-1028-8880), v. 5(2): pp.149-151.	SCOPUS

Non Citation Indexed Journal

No.	Journal
1	Shahanaz Sultana , Chai-Ling Ho, Parameswari Namasivayam and Suhaimi Napis (2014) Genotypic differences in response to the effect of hygromycin on calli and germination of rice. <i>Bangladesh Rice Journal</i> . 1025-7330(Accepted)
2	A.K.M. Mohiuddin, Nilufer Hye Karim and Shahanaz Sultana Development of Improved Double Haploid through Anther culture of Indica Rice. (2014) <i>Annals of Biological Research</i> . 0976-1233. v 5 (10): pp6-13
3	Israt Nadia, A.K.M. Mohiuddin, Shahanaz Sultana and Jannatul Ferdous. (2014) Diversity analysis of indica rice accessions (<i>Oryza sativa</i> L.) using morphological and SSR markers. <i>Annals of Biological Research</i> . 0976-1233. v5(11):pp 20-31
4	Mohiuddin, A.K.M., Shahanaz Sultana , Ferdous, J. and Karim, N.H. (2010). Culturability Behaviour in Indica and Japonica Rice Varieties. <i>Bangladesh Rice Journal</i> , 1025-7330. v. 15(1):pp39-47

5	MS Ali, MA Salam, M.E Hoque, Shahanaz Sultana , MS Kabir, M.S Islam, H.U Ahmed, S Khatun and BAA Mustafi (2006). Breeding and adoption of Boro Rice varieties in Bangladesh. <i>International Journal of Sustainable Agricultural Technology</i> . 1815-1272, v. 2(4): pp61-68.
6	MS Ali, M.E Hoque, Shahanaz Sultana , S Islam, S. Kiyosawa, D Purba, M Kawase and K. Okuno (2005). Gene analysis for Field resistant to Rice (<i>Oryza sativa</i> L) blast. <i>Bangladesh Journal of Plant Breeding and Genetics</i> . 1026-3071, v. 16(2): pp9-19
7	Ferdous J, ME Hoque, MS Ali, AKMR Baksha and Shahanaz Sultana . (2005). Effect of NaCl on Callus Induction and Subsequent Regeneration in Some Fine Grain and Aromatic Rice Varieties. <i>Molecular Biology and Biotechnol Journal</i> , 1993-1967. v.3(1&2): pp19-22
8	Shahanaz Sultana , M A. Islam and M. R. Islam. (2001). Genotype variation for heading date, biomass and its components of wheat under water and phosphorus stress. <i>Bangladesh Journal of Training and Development</i> , v.14(1 & 2):pp205-212
9	Shahanaz Sultana , M A. Islam and M. R. Islam. (2000). Genotypic Variation for Phosphorus Efficiency Ratio and Phosphorus Uptake of Wheat (<i>Triticum aestivum</i> L) under Phosphorus and Water Stress. <i>Bangladesh Journal of Plant Breeding and Genetics</i> . 1026-307, v. 13(2):pp35-40
10	Shahanaz Sultana , M A. Islam and M. R. Islam. 2000. Genotypic Variation for Spike Characters and Yield Component of Wheat under Phosphorus and Water Stress. <i>Progressive Agriculture</i> . 2310-2950, v.11(1and 2):pp5-8
11	M. R. Islam, M.A.R. Bhuiyan, M. F. Islam, Shahanaz Sultana and B. Prased. (1999). Effect of Salt on Germination and Seedling Growth in Rapeseed and Mustard Varieties. <i>Journal of Agricultural Education and Technology</i> , v. 2(2):pp93-96

Book

No.	Book
1.	M.S. Ali, M.E Hoque, S. Sultana , M. Z. Hossain, S.M.H.A Rabbi, R.K. Roy, N. Haque, H. Hossain and M. M. Islam (2013). An Integrated Approach to Characterize BRRI Released Rice Varieties. Bangladesh rice Research Institute. Bangladesh

ABSTRACTS PUBLISHED IN PROCEEDING OF NATIONAL AND INTERNATIONAL CONFERENCE:

- Roy R.K, R.R. Majumder, **S. Sultana**, M.E. Hoque and M.S. Ali. 2014. Genetic variability, correlation and path coefficient analysis for yield and yield components in transplanted Aman Rice (*Oryza sativa* L.). In: 9th Biennial Conference of Plant Breeding and Genetics Society of Bangladesh. KIB and BARC, Dhaka: p 76
- M Monirul Islam, **Shahanaz Sultana**, M Enamul Hoque and M Shamsheer Ali (2013). Pyramiding Genes for Resistance to Bacterial Blight in Rice. International Conference on Biotechnology, Committee of Action for Research, Extension and Services (CARES). Dhaka Bangladesh: p 51
- M.M. Islam, M.E Hoque, S.M.H.A Rabbi, H. Hossain, RK Ray, **Shahanaz Sultana** and MS Ali (2010). Diversity Analysis of BRRI Genotypes and their Parents. Presented in 6th International Plant Tissue Culture and Biotechnology Conference. Dhaka : p 40
- Shahanaz Sultana**, Ho Chai Ling, Parameswari A/P Namasivayam and Suhaimi B Napis (2009). Over-expression of Monodehydroascorbate Reductase (AcMDHAR) from a Mangrove Plant in Rice for Salt Tolerance. Presented in Plant Biotechnology Post Graduate Symposium : p 7
- Ferdous J, ME Hoque, MS Ali, AKMR Baksha and **Shahanaz Sultana**. (2008). Effect of NaCl on Callus Induction and Subsequent Regeneration in Some Fine Grain and Aromatic Rice Varieties. International Biotechnology Conference, Bangladesh Association for Biotechnology and Genetic Engineering (BABGE). Dhaka Bangladesh: p 80

6. **Shahanaz Sultana**, Ho Chai Ling, Parameswari A/P Namasivayam and Suhaimi B Napis. (2008) Over-expression of Monodehydroascorbate Reductase (MDHAR) from a Mangrove Plant in Rice for Salt Tolerance. Presented in 17th scientific meeting of the Malaysian Society for Molecular Biology and Biotechnology (MSMBB): p34 -35
7. **Shahanaz Sultana**, Ho Chai Ling, Parameswari A/P Namasivayam Suhaimi B Napis, Ruslan Abdullah (2007) Development of Salt Tolerant Rice by Overexpressing Genes from a Mangrove Plant in Rice. Presented in Asia Pacific Conference on Plant Tissue Culture and Agribiotechnology (APaCPA) held in, Malaysia: p78
8. Karim NH, Mohiuddin AKM and **Shahanaz Sultana** (2002). Development of improved dihaploids through anther Culture of Rice. Presented in Annual Plant Tissue Culture Conference held in BRRI : p 17
9. Karim NH, Mohiuddin AKM and **Shahanaz Sultana** (2001). Studies on increased efficiency of regeneration from seed derived callus of Rice (*Oryza sativa* L.). Presented in Annual Plant Tissue Culture Conference held in Botany Department of Dhaka University: p 107

MS THESIS SUPERVISED/CO-SUPERVISED:

- Ishrat Nadia, **Shahanaz Sultana** and Mohiuddin AKM (2011). Diversity Analysis of Rice Varieties using Morphological and SSR markers. A thesis submitted to the Department of Biotechnology and Genetic Engineering Mawlana Bhahsani Science and Technology University, For partial fulfilment of MS in Biotechnology
- Sultana Razia, **Shahanaz Sultana** and KM Nasiruddin (2012). Evaluation of Salt tolerance through marker assisted selection and phenotypic screening in rice. A thesis submitted to the Department of Biotechnology, Bangladesh Agriculture University, Mymensingh For partial fulfilment of MS in Biotechnology

PROFESSIONAL MEMBERSHIP:

- Plant Breeding and Genetical Society, Bangladesh
- Profesional Organisation of Women in Extension and Research (POWER), Bangladesh.
- Krishibid (Agriculturist) Institution, Bangladesh
- Bangladesh Association of Plant Tissue Culture and Biotechnology
- Organization for Women in Science and Development (OWSD)

REFERENCES:

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