



Curriculum Vitae

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Date of Birth: 20/10/1973 **Nationality:** Bangladeshi

EDUCATION:

- 10/2009 – on-going, Ph.D., Department of Biochemistry and Molecular Biology, University of Dhaka, Bangladesh, Major: Molecular Biology; Minor: Environmental Biochemistry
- 03/2006 - 03/2008, M.S., Department of Crop Botany, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Salna, Gazipur-1706, Major: Crop Botany (Stress Physiology); Minor: Genetics and Plant Breeding
- 04/1993 – 12/1999, B.Sc.Ag. Faculty of Agriculture, Bangladesh Agricultural University, Mymensingh-2202, Major: Agriculture, Minor: Crop Production

PROFESSIONAL TRAINING:

- 09/2014-09/2014, **The Mediterranean Agronomic Institute of Zaragoza (CIHEAM-IAMZ)**, Zaragoza, Spain, Integrated Breeding Multi-Year Course-Y3.
- 10/2013-10/2013, **The Mediterranean Agronomic Institute of Zaragoza (CIHEAM-IAMZ)**, Zaragoza, Spain, Integrated Breeding Multi-Year Course-Y2.
- 02/2013 – 02/2013, **Bangladesh Agricultural Research Council (BARC)**, Project Development and Management Course.
- 10/2012-10/2012, **Biometris, Wageningen University and Research Center**, The Netherland, Integrated Breeding Multi-Year Course-Y1.
- 11/2010 - 11/2011, **Crop and Environment Sciences Division, International Rice Research Institute**, Philippines, On-the job training for Marker assisted backcrossing and QTL mapping.
- 02/2005 – 06/2005, **Bangladesh Academy of Rural Development**, Comilla, Foundation Training Course for NARS scientist
- 03/2004 - 03/2004, **Molecular Pathology Laboratory**, Plant Pathology Division, Bangladesh Rice Research Institute, Introductory Course in Molecular Biology.
- 12/2003–02/2004, **Training Division, BRRI, Gazipur**, Rice Production, Office Management and Communication.
- 03/2003-04/2003, **IRRI, Philippines**, Hybrid rice seed production technology

WORK EXPERIENCE :

- 06/2009 – Present Senior Scientific Officer. Plant Physiology Division, Bangladesh Rice Research Institute (BRRI), Gazipur
- 05/2001 – 06/2009 Scientific Officer. Plant Physiology Division, Bangladesh Rice Research Institute (BRRI) Gazipur

SPECIAL COMPETENCIES AND INTERESTS:

- Molecular biology: SSR and SNP genotyping and analysis, DNA and RNA isolation, PCR, Agarose and Polyacrylamide Gel Electrophoresis
- Molecular Genetics: Population development and maintenance, QTL mapping
- Molecular Breeding: Marker Assisted Selection (MAS), Marker Assisted Backcrossing (MABC), Marker Assisted Recurrent Selection (MARS)
- Rice Physiology: Stress physiology-salinity, submergence and heat tolerance, Deep water rice ecology, Photosynthesis research; Physiology of nutritional and toxic elements

COMPUTER SKILLS

General computing: Imaging and scanning by using Photoshop and Illustrator, Microsoft Office 2007, comfortable on Windows 2007.

QTL mapping and Genetical computing: QGENE, WinQTL Cartographer, QTL-Network, MapManagerQTX, QTL IciMapping, Graphical Genotype, Flapjack for SNP, Power Marker, NTSYSpC, POPMIN, POPGENE, Breeding Management System 2.1

Statistical computing: GenStat, CropStat, MStat-C, GraphPad Prism, SigmaPlot, MyStat. SPSS, R-statistics, JMP of SAS, Breeding View

Photosynthesis and Agrometerology computing: Li-Cor Photosynthesis system and Specware of Spectrum Technologies.

PROFESSIONAL MEMBERSHIPS

- 2013-present: Assistant General Secretary of **BRRI Scientist's Association**
- 2009-present: Member of **Bangladesh Society of Biochemistry and Molecular Biology**
- 2008-present: Member of **Bangladesh Association of Plant Tissue Culture and Biotechnology**
- 2007-2008: Associate Member of **Plant Breeding and Genetics Society of Bangladesh**
- 2005 to present: Associate Member of **Bangladesh Botanical Society**
- 2001-present: Member of **BRRI Scientist's Association**

GRANTS

- National Science and Technology Fellowships for 2000-2001 for research on Agro-Industrial Waste Management as Masters Researcher at BAU, Mymensingh.

HONORS AND AWARDS

- **2011:** First prize for presenting a poster entitled "Introgression of Saltol and fine-mapping of a reproductive stage QTL to develop rice varieties highly tolerance to salt stress. In: Generation Challenge Program ARM, held in Hyderabad, India, 21-25, September 2011.
- **2007:** First prize for presenting a poster entitled "Horidhan: Genetic variation of BR11?. In: An international conference "Promotion of Biotechnology: National and International Perspectives" held in ICDDR'B, Dhaka, Bangladesh, 6-8 April 2007.
- **2005:** Director General's award for obtaining the first position of the Foundation Training Course for NARS Scientists (Batch 12), held from 27th February 2005 to 26th June 2005 at BARD, Comilla, Bangladesh.
- **2001:** Karim memorial trust prize for the best student of the Dept. of Agricultural Chemistry, BAU, Mymensingh in the year 2001.

CONFERENCE/WORKSHOP/MEETING/FOREIGN TRAVEL

Country	Purpose	Period	
		From	To
India	To attend CSISA Phase II Planning and Evaluation meeting	16 December 2014	17 December 2014
Philippines	To attend a scientific conference (Rice Genetics7)	5 November 2013	7 November 2013
Philippines	To attend a scientific conference (Rice Genetics6)	16 November 2009	19 November 2009
Vietnam	To attend a scientific conference (3 rd International Rice Congress)	8 November 2010	11 November 2010

PUBLICATIONS

- 1) Nusrat Yesmin, Sabrina M. Elias, **Md. Sazzadur Rahman**, Taslima Haque, AKM Mahbub Hasan and Zeba I. Seraj. 2014. Unique genotypic differences discovered among indigenous Bangladeshi rice landraces. *International Journal of Genomics*. <http://dx.doi.org/10.1155/2014/210328>.
- 2) Sabrina M. Elias, Rokeya Begum, **Md. Sazzadur Rahman**, Afroza Ferdouse, Habibul B. Shozib, Md. Muntasir Ali, Zeba I. Seraj. 2014. Genotypic and phenotypic relatedness of a farmer-discovered variant with high yielding rice growing in the same field. *Plant Syst. Evol.* DOI 10.1007/s00606-014-1085-x.
- 3) A.K. Dutta, P.S. Gope, S. Banik, **Md. S. Rahman**, S. Makhnoon, M.A. Siddiquee and Y. Kabir. 2013. Physicochemical, cooking and antioxidant properties of nine aromatic rice cultivars of Bangladesh. *Acta Alimentaria* 42(4):552-564, DOI: 10.1556/AAlim.42.2013.4.10
- 4) Alak Kanti Dutta, Partha Sarathi Gope, Sukh Makhnoon, **Md. Sazzadur Rahman**, Muhammad Ali Siddiquee and Yearul Kabir. 2012. Effect of Solvent extraction on Phenolic content, Antioxidant and α -Amylase Inhibition activities of *Swertia chirata*. *International Journal of Drug Development & Research* 4 (4): 317-325.
- 5) Mahzabin Amin, Sabrina M. Elias, Alamgeer Hossain, Aliya Ferdousi, **Md. Sazzadur Rahman**, Narendra Tuteza and Zeba I. Seraj. 2012. Over-expression of a DEAD-box helicase, PDH45, confers both seedling and reproductive stage salinity tolerance to rice (*Oryza sativa* L.). *Mol. Breeding*, 30:345-354 DOI:10.1007/s11032-011-9625-3. Published online-August 24, 2011.
- 6) Laisa A. Lisa, Sabrina M. Elias, **M. Sazzadur Rahman**, Saima Shahid, Tetsushi Iwasaki, A.K.M. Mahbub Hasan, Keiko Kosuge, Yasuo Fukami and Zeba I. Seraj. 2011. Physiology and gene expression of the rice landrace Horkuch under salt stress. *Functional Plant Biology*, 38:282-292
- 7) R. Alam, **M. Sazzadur Rahman**, Z. I. Seraj, M. J. Thomson, A. M. Ismail, E. Tumimbang-Raiz and G. B. Gregorio. 2011. Investigation of seedling-stage salinity tolerance QTLs using backcross lines derived from *Oryza sativa* L. Pokkali. *Plant Breeding* 130(4):430-437. doi:10.1111/j.1439-0523.2010.01837.x, First Published online-22 Feb 2011.
- 8) M.A. Salam, M.R. Islam, **M.S. Rahman**, M.A. Rahman, M.A.R. Bhuiyan, Z.I. Seraj, T.L. Aditya, M.K. Uddin, M.K. Mondal, A.M. Ismail, D.L. Adorada, R.D. Mendoza, E.B. Tumimbang-Raiz and G.B. Gregorio. 2010. Rice varieties and cultural management practices for high and sustained productivity in the coastal wetlands of southern Bangladesh. In: *Tropical Deltas and Coastal Zones: Food Production, Communities and Environment at the Land-Water Interface*, edited by C.T. Hoanh, B.W. Szuster, K. Suan-Pheng, A.M. Ismail and A.D. Noble, Comprehensive Assessment of Water Management in Agriculture Series; v. 9, CAB International Publishing Company, UK, pp 183-198
- 9) N Akter, J Nain, **MS Rahman**, MGK Bhuiyan and MG Rabbani. 2010. Effects of different explants and NAA concentration on *in vitro* callus induction and regeneration of brinjal (*Solanum melongena* L.). *Intl. J. BioRes.* 9(1):1-6
- 10) **M. Sazzadur Rahman**, Keshob C. Das, Dipok K. Das, Kuntal Biswas, M. Badrul H. Chowdhury, Nilufer H. Karim, M. Abdus Salam and Zeba I. Seraj. 2010. Breeding and anther derived lines of rice (*Oryza sativa* L.) for the saline coastal areas of Bangladesh. *Bangladesh J. Bot.* 39(1):71-78.
- 11) Keshob C. Das, **M.S. Rahman**, M.A. Siddiquee and Zeba I. Seraj. 2010. Analysis of anther derived rice (*Oryza sativa* L.) genotypes for their tolerance to salinity. *Eco-friendly Agril. j.* 3(5):254-260.
- 12) Aditya, T.L., Khanam, M. and **Rahman, M.S.** 2010. Screening of NaCl-stressed somaclones after exposure to NaCl at germination and seedling stage conditions. *Eco-friendly Agril. j.* 3(2):75-79
- 13) Islam, S.M.T., Tammi, R.S., Malo, R., Amin, M., **Rahman, M.S.**, Elias, S.M. and Seraj, Z.I. 2009. Constitutive expression of OsNHX1 under the promoter Actin1D can improve the salt tolerance and yield characteristics of Bangladeshi rice Binnatoa. *Australian Journal of Crop Science* 3(6):329-335
- 14) Islam, M.Sh., Bhuiya, M.S.U., **Rahman, S.** and Hussain, M.M. 2009. Evaluation of SPAD and LCC based nitrogen management in rice (*Oryza sativa* L.). *Bangladesh J. Agril. Res.* 34(4):661-672
- 15) Islam, M.R., **Rahman, M.S.**, Salam, M.A. 2008. Coastal saline environment and rice variety development in Bangladesh. *Eco-friendly Agril. j.* 1(1):37-47

- 16) Islam, M.R., Salam, M.A., Bhuiyan, M.A.R., Rahman, M.A., Yasmeen, R., **Rahman, M.S.**, Uddin, M.K., Gregorio, G.B. and Ismail, A.M. **2008**. BRRI dhan47: A salt tolerant rice variety for boro season isolated through participatory variety selection. *Intl. J. BioRes.* 5(1):1-6
- 17) Islam, M.R., Salam, M.A., Aditya, T.L., Bhuiyan, M.A.R., Rahman, M.A., **Rahman, M.S.**, Khatun, S. and Ahmed, H.U. **2008**. Improvement of rice genotypes for salt affected areas of Bangladesh. *Intl. J. BioRes.* 4(5):81-85
- 18) Bhuiyan, M.A.R., Salam, M.A., **Rahman, M.S.**, Newaz, M.A. and Gregorio, G.B. **2008**. Effect of salinity on height and tolerance level of rice at seedling stage. *Intl. J. BioRes.* 4(2):13-20
- 19) **Rahman, M.S.**, Khanam, M., Rashid Sorker, A.S.M.H., Aurangozeb, M.K. and Islam, M.S. **2007**. Effect of *Multi-Effect Triazole (MET)* on the growth and yield of BRRI dhan32. *Intl. J. BioRes.* 2(3):17-23
- 20) Khanam, M., **Rahman, M.S.**, Mahbub, A.A., Yeasa, M. and Gomosta, A.R. 2007. Effects of different factors on the growth efficiency of rice seedlings. *Bangladesh J. Bot.* 36 (2):171-176
- 21) Mahbub, A.A., Khanam, M., **Rahman, M.S.**, Hossain, M.A. and Gomosta, A.R. 2006. Determination of lodging characters of some BRRI recommended rice varieties at three nitrogen levels during wet season in Bangladesh. *Bangladesh J. Bot.* 35(2):117-124
- 22) Salam, M.A., Rahman, M.A., Bhuiyan, M.A.R., Uddin, K., Sarker, M.R.A., Yasmeen, R. and **Rahman, M.S.** **2007**. BRRI dhan 47: a salt-tolerant variety for the boro season. *IRRN 32(1):42-43*
- 23) Mahbub, A.A., **Sazzadur Rahman, M.** Khanam, M. and Gomosta, A. R. **2005**. Development of Preharvest sprouting tolerance screening technique in rice. *IRRN 30(1):50-51*

ACADEMIC/CONFERENCE PRESENTATIONS

SEMINAR PRESENTATIONS:

- 1) Development of heat tolerant rice through marker-assisted backcrossing. Presented in International Conference of Biotechnology in Health and Agriculture (ICBHA), 2nd GNOBB Conference 2015, Nabab Nawab Ali Chowdhury Senate, University of Dhaka, Dhaka, Bangladesh, 9-10 January, 2015.
- 2) Modeling G by E interaction analysis for multi-environment trials- BRRI Thursday Seminar presentation, BRRI, Gazipur, Bangladesh, 8 May 2014.
- 3) Rice Research and Food Security in Bangladesh: Development of Salt and Heat Tolerant Rice - Invited Seminar Presentation, Department of Genetic Engineering and Biotechnology, East West University, Dhaka, Bangladesh, 31 July 2013.
- 4) MABC for introgression of *Saltol* QTL and allelic variation of *Saltol* region of Pokkali accessions - BRRI Thursday Seminar presentation, BRRI, Gazipur, Bangladesh, 20 December 2012.
- 5) Genotypic and phenotypic characterization of '*Saltol*' introgression lines for release as high-yielding salt tolerant rice. Second PhD seminar presentation, Dept. of Biochemistry and Molecular Biology, University of Dhaka, Bangladesh, 16 July 2012.
- 6) Genotypic and phenotypic characterization of '*Saltol*' introgression lines for release as high-yielding salt tolerant rice. First PhD seminar presentation, Dept. of Biochemistry and Molecular Biology, University of Dhaka, Bangladesh, 28 November 2011.
- 7) Studies on '*Saltol*' QTL introgression through marker assisted backcrossing - BRRI Thursday Seminar presentation, BRRI, Gazipur, Bangladesh, 22 May 2008
- 8) Introgression of salt tolerance into Bangladeshi mega rice variety BR11 through marker assisted backcrossing- MS Thesis presentation, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Salna, Gazipur, Bangladesh, 28th April 2008.
- 9) Introgression of '*Saltol*' QTL into Bangladeshi mega rice variety BR11 through marker assisted backcrossing. Presented in Plant Tissue Culture & Biotechnology Conference 2008, Department of Botany, University of Dhaka, Dhaka, Bangladesh, 13 April, 2008

POSTER PRESENTATIONS:

- 1) **M. S. Rahman**, S. Rahman, T. Haque, M.R. Islam, M.A. Salam, M.J. Thomson, A.M. Ismail and Z.I. Seraj. 2013. Development of salt tolerant version of BR11 and BRRI dhan28 through marker-assisted backcrossing. Poster presented in 7th International Rice Genetics Symposium 2013, held in 5-8 November 2013, Dusit Thani Hotel, Manila, Philippines.
- 2) **M. Sazzadur Rahman**, Michael J. Thomson, Zeba I. Seraj and Abdelbagi M. Ismail. 2011. Introgression of Saltol and fine-mapping of reproductive stage QTLs to develop rice varieties highly tolerant of salt stress. Poster presented in GCP ARM 2011, Hyderabad, India, held in 21-25 September, 2011.
- 3) **M. Sazzadur Rahman**, Habibul B. Shozib, Aliya Ferdousi, Mariz Sintaha, M. A. Salam, Michael J. Thomson, Abdelbagi M. Ismail and Zeba I. Seraj. 2010. Mapping of Novel Salt tolerance QTLs from Bangladeshi Coastal Aus Rice Landrace Boilam (*Oryza sativa* L.). Poster presented in 3rd International Rice Congress 2010, Hanoi, Vietnam, held in 8-12 November, 2010.
- 4) **M. Sazzadur Rahman**, Aliya Ferdousi, Dost Mohammad, Mariz Sintaha and Zeba I. Seraj. 2010. Application of DNA markers in the development of rice suitable for the changing environment. In: Sixth AGM and Symposium, Organized by Graduate Biochemists Association (GBA), TSC Auditorium, University of Dhaka, Bangladesh, held in 21 May, 2010. P-24
- 5) **Sazzadur Rahman**, Aliya Ferdousi, Rafiqul Islam, Abdus Salam, Michael Thomson, Abdelbagi Ismail and Zeba Seraj. 2009. Saltol introgression into Bangladeshi mega rice variety BR11 through marker assisted backcrossing. Poster presented in the 6th International Rice Genetics Symposium, 16-19 November 2009, Manila Hotel, Manila, Philippines.
- 6) **M. Sazzadur Rahman**, M.A.A. Mahbub, H.N. Barman, J.K. Biswas and M.S. Islam. 2009. Photosynthetic responses of BRRI rice varieties at different light intensities. In: Fourth International Botanical Conference, Organized by Bangladesh Botanical Society, Department of Botany, University of Dhaka, Bangladesh, held in 16-18 January, 2009. P-74
- 7) **Rahman, M.S.**, Begum, R. and Seraj, Z.I. 2007. Hori dhan: Genetic Variation of BR11? In: Proceeding on the conference 'Promotion of Biotechnology in Bangladesh: National and International Perspectives' held in 6-8 April 2007, ICDDR'B, Dhaka, Bangladesh. P-120.

Referees:

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