

CURRICULUM VITAE

Madan Kumar Bhattacharyya
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Department of Agronomy

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(a) Professional Preparation

Assam Agricultural University, India	B.Sc., (Ag.)	1975
Punjab Agricultural University, India	M.Sc., Olericulture	1978
University of Western Ontario, Canada	Ph.D., Plant Sciences	1987

(b) Appointments

2003-present	Associate Professor	Department of Agronomy, ISU
2000-2003	Assistant Professor	Department of Agronomy, ISU
1997-2000	Associate Scientist	Noble Foundation, USA
1996-2000	Adjunct Assistant Professor	Dept. of Botany, OSU, Oklahoma
1991-1996	Assistant Scientist	Noble Foundation
1990-1991	Postdoctoral Fellow	Noble Foundation
1987-1990	Higher Scientific Officer	John Innes Institute, England
1983-1987	Graduate Assistant	University of Western Ontario, Canada
1980-1982	Assistant Professor	Assam Agricultural University, India
1978-1980	Senior Research Assistant	Assam Agricultural University

(c) Selected Publications Closely Related to BCB Program

- Narayanan, N.N., Tasma, I.M., Grant, D., Shoemaker, R., and **Bhattacharyya, M.K.** (2008) Identification of candidate signaling genes including regulators of chromosome condensation 1 proteins family differentially expressed in the soybean-*Phytophthora sojae* interaction. *Theoretical and Applied Genetics*, in press.
- Tasma, I.M., Brendel, V., Whitham S.A., and **Bhattacharyya, M.K.** (2008) Expression and Evolution of the Phosphoinositide-specific Phospholipase C Gene Family in *Arabidopsis thaliana*. *Plant Physiology and Biochemistry*. 46:627-637..
- Gao, H., and **Bhattacharyya M.K.** (2008) The soybean-Phytophthora resistance locus *Rps1-k* encompasses coiled coil-nucleotide binding-leucine rich repeat-like genes and repetitive sequences. *BMC Plant Biol.* 8:29.
- Ji, J., Scott, M.P., and **Bhattacharyya, M.K.** (2006) Light is essential for degradation of ribulose-1,5-biphosphate carboxylase-oxygenase large subunit during sudden death syndrome development in soybean. *Plant Biology* 8:597-605.
- Gao, H., Narayanan, N., Ellison, L., and **Bhattacharyya M.K.** (2005) Two classes of highly similar coiled coil-nucleotide binding-leucine rich repeat genes isolated from the *Rps1-k* locus encode Phytophthora resistance in soybean. *Mol. Plant-Microbe Interact.* 18: 1035-1045.
- Bhattacharyya, M.K.**, Narayanan, N. N., Gao, H., Salimath, S.S., Santra, D., Ellison, L., Brar, H., Kasuga, T., Liu, Y., Espinosa, B., Marek, L.F., Shoemaker, R.C., Gijzen, M. and Buzzell, R.I. (2005) Identification of a large cluster of coiled coil-nucleotide binding site-leucine rich repeat-type genes from the *Rps1* region containing Phytophthora resistance genes in soybean. *Theor. Appl. Genet.* 111:75 – 86.
- Sandhu, D., Gao, H., Cianzio, S., and **Bhattacharyya, M.K.** (2004) Deletion of a disease resistance nucleotide-binding-site leucine-rich- repeat-like sequence is associated with the loss of the phytophthora resistance gene *Rps4* in soybean. *Genetics*, 168:2157-167.
- Santra, D.K., Sandhu, D., Tai, T. and **Bhattacharyya, M.K.** (2003). Construction and characterization of a soybean yeast artificial chromosome library and identification of clones for the *Rps6* region. *Funct Integr Genomics.*, 3:153-159.

Shi, J., Dixon, R.A., Gonzales, R.A., Kjellbom, P. and **Bhattacharyya, M.K.** (1995). Identification of cDNA clones encoding valosin-containing protein and other plant plasma membrane-associated proteins by a general immunoscreening strategy. *Proc. Natl. Acad. Sci. USA* 92: 4457-4461.

Manuscript under preparation

Cannon, S., Sandhu, D., MacMil, S., Wiley, G., Beavis, W.D, Roe, B, **Bhattacharyya, M.K.** (2009) Transcript Profiles of the Soybean-*Phytophthora sojae* Interaction using 454 Pyrosequencing. To be submitted to ***BMC Genomics***.

(d) Synergistic Activities

- An active member in interdisciplinary graduate training programs: Interdepartmental Genetics (Chairperson, retreat committee for 2001; member, admission committee 2002 and 2004; member, Curriculum Committee, 2008-); Agronomy (member of Plant Breeding Panel); Molecular, Cellular, and Developmental Biology (Chair, Faculty Membership, 2002-2006.); Bioinformatics and Computational Biology; Interdepartmental Plant Physiology (now Plant Biology) (Chair, Plant Physiology Mini Symposium, 2004; Chair, Curriculum Committee, 2007-); and associate faculty member in Plant Pathology Department.
- Teaches a graduate course on “Plant Genetics”
- Participated in grant panels: Plant Genome program NRICGP-USDA, FY1997. Biology of Plant Microbe-Association Panel NRICGP-USDA, FY2000
- Initiated and have been co-organizing ‘Proteomics Workshop’ at the Plant and Animal Genome Conference, 2004-.

(e) Collaborators & Other Affiliations

A. Collaborators and Co-authors (last four years)

S. Cianzio (Iowa State University, Ames), M. Gijzen (Agriculture-Agri-Food Canada, London), L. Vodkin (University of Illinois, Urbana-Champaign), V. Brendel (Iowa State University, Ames), R. C. Shoemaker (Iowa State University, Ames), S. Whitham (Iowa State University, Ames), Thomas Tai (University of California, Davis), R.I. Buzzell (Agriculture-Agri-Food Canada, Harrow), L. Marek (Iowa State University, Ames), W-M. Chou (National Huwei Institute of Technology, Taiwan), C. Damman (The Scripps Research Institute, La Jolla), Y. Lu (Oakridge National Laboratory, Oak Ridge), S.S. Salimath (Washington State University, Pullman), T. Shigaki (Baylor Medical College, Houston), D. Santra (Washington State University, Pullman), Made Tasma (Iowa State University), D. Sandhu (Iowa State University), N. N. Narayanan (Iowa State University), H. Gao (Iowa State University).

B. Graduate and Postdoctoral Advisors:

Graduate Advisor: E. W. B. Ward, Retired Principal Plant Pathologist, Agriculture Canada, London, Canada.

Postdoctoral: C. R. Martin, John Innes Institute, Norwich, England

Postdoctoral: B. Stermer, Noble Foundation, Ardmore

C. Thesis advisor and (last five years)

H. Gao (Iowa State University), Junli Ji (Iowa State University), H. Brar (Iowa State University).

D. Postgraduate-Scholar Sponsor (last five years)

W-M. Chou (National Huwei Institute of Technology, Taiwan), C. Damman (The Scripps Research Institute, La Jolla), Y. Lu (Oakridge National Laboratory, Oak Ridge), D. Ren (University of Missouri-Columbia), G-Q. Tang (North Carolina State University, Raleigh), D. Santra (Washington State University, Pullman), Made Tasma (Iowa State University), Devinder Sandhu (Iowa State University), Narayanan N. Narayanan (Iowa State University), S. Ramusubramanian (Iowa State University).

CURRENT AND PENDING SUPPORT

NAME (List/PD #1 first)	SUPPORTING AGENCY AND AGENCY ACTIVE AWARD/PENDING PROPOSAL NUMBER	TOTAL \$ AMOUNT	EFFECTIVE AND EXPIRATION DATES	TIME COMMITTED (%)	TITLE OF PROJECT
Active					
Bhattacharyya, M.K.	Iowa Soybean Association	\$60,000	2007-2009	10	Non-Host Resistance For Creating Broad-Spectrum Disease Resistance In Soybean
Bhattacharyya, M.K.	North Central Soybean Research Program	\$92,427	2007-2010	10	Fighting The Sudden Death Syndrome In Soybean
Bhattacharyya, M.K.	Consortium For Plant Biotechnology Research	\$100,000	2006-2009	10	Novel Soybean Germplasm With Durable And Broad-Spectrum Phytophthora Resistance.
Cianzio, S. Bhattacharyya, M.K. (co-PI)	United Soybean Board	\$295,879	2008-2011	10	Application of New Genetic and Genomic Resources to the Improved Control of Soybean Sudden Death Syndrome (SDS)
Bhattacharyya, M.K.	Syngenta, Inc.	\$168,822	2008-2010	10	Sudden Death Syndrome (SDS) in soybean.
Pending					
Bhattacharyya, M.K. (This Proposal)	Consortium For Plant Biotechnology Research	\$128,552	2008-2010	10	Nonhost Resistance For Engineering Disease Resistance