

KIRANKUMAR S. MYSORE

Associate Professor

Plant Biology Division
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EDUCATION

Univ. of Agricultural Sci., Bangalore, India	Agriculture	B.Sc.	1991
Clemson University, Clemson, SC.	Horticulture	M.S.	1994
Purdue University, West Lafayette, IN	Genetics	Ph.D.	1999
Boyce Thompson Inst., Cornell Univ. NY	Plant Genomics	Postdoc	1999-02

PROFESSIONAL EXPERIENCE

10/07 – Present **Associate Professor**, Plant Biology Division, Samuel Roberts Noble Foundation
08/02 – 09/07 **Assistant Professor**, Plant Biology Division, Samuel Roberts Noble Foundation
08/03 – Present **Adjunct Professor**, Dept. of Plant Pathology, Oklahoma State Univ.
03/99 – 08/02 **Postdoctoral Fellow**, Boyce Thompson Institute for Plant Res., Cornell Univ.
05/96 – 03/99 **Graduate Research Assistant**, Department of Biological Sciences, Purdue Univ.
08/95 – 05/96 **Graduate Teaching Assistant**, Department of Agronomy, Purdue Univ.
08/94 – 08/95 **Predoctoral Fellow**, Genetics Program, Purdue Univ.
08/92 – 08/94 **Graduate Assistant**, Department of Horticulture, Clemson Univ.

AWARDS AND SCHOLARSHIPS

A. H. Ismail Doctoral Research Travel Award, Purdue University (1997)
Keystone Symposium travel award (1997)
Special Initiative University Pre-doctoral Fellowship, Purdue University (1994-1995)
Wade Stackhouse Fellowship, Clemson University (1993-1994)
University Merit Scholarship, University of Agricultural Sciences, India (1991-1992)

COMPETITIVE RESEARCH GRANTS AWARDED

Project Title: T-DNA tagging in tomato using a non-tissue culture approach (1999-2000).
PI: Kiran Mysore
Granting Agency: Boyce Thompson Institute for Plant Research
Award Amount: \$ 15,600

Project Title: Functional Analysis of Signaling Components involved in Plant Disease Resistance (2000-2001).

PI: Kiran Mysore

Granting Agency: Boyce Thompson Institute for Plant Research

Award Amount: \$ 19,650

Project Title: A novel approach to identify plant genes involved in *Agrobacterium*-mediated transformation (2005-2009).

PI: Kiran Mysore.

Granting Agency: National Science Foundation (Grant # IOB 0445799)

Award amount: \$300,000

REU Supplement award (2006): \$7,131

REU Supplement award (2007): \$6,000

Project Title: Characterization of *Medicago-Phymatotrichopsis omnivora* interactions (2005-2009).

PIs: Rick Dixon, Kiran Mysore, Lloyd Sumner, Joe Bouton, Carolyn Young, Steve Marek and Bruce Roe

Granting Agency: The State of Oklahoma (Oklahoma Legume Consortium)

Award amount: \$1,500,000 (\$218,698 for Mysore lab as direct cost)

Project Title: A functional genomics approach to identify signaling components involved in defense responses induced by the ethylene induced xylanase elicitor (2006-2009).

PIs: Adi Avni and Kiran Mysore.

Granting Agency: U.S.-Israel Binational Agricultural Research & Development Fund (BARD; Project # IS-3922-06)

Award amount: \$310,000 (\$155,000 for Mysore lab)

Project Title: Development of genetic resources in *Medicago truncatula* to dissect the regulatory networks governing legume nodule development and differentiation (2007-2011).

PI: Michael Udvardi; Co-PIs: Kiran Mysore and Rujin Chen

Granting Agency: National Science Foundation Plant Genome Program (Grant # DBI 0703285)

Award amount: \$3,831,732 (~\$1,400,000 for Mysore lab)

Project Title: MRI: Acquisition of a spinning disk confocal microscope for rapid imaging of plant cellular processes (2007-2010)

PI: Elison Blancaflor; Co-PIs: Kiran Mysore, Rujin Chen, Rick Nelson

Granting Agency: National Science Foundation (Grant # DBI 0722635)

Award amount: \$369,001

Project Title: Identification of *Medicago truncatula* genes involved in resistance/tolerance to Asian soybean rust fungus using a forward genetics approach (2008-2011)

PI: Kiran Mysore; Co-PI: Srinivasa Rao Uppalapati

Granting Agency: BASF Plant Sciences

Award amount: \$600,000

Project Title: EPSCoR Research Infrastructure Improvement Plan "Building Oklahoma's Leadership Role in Cellulosic Bioenergy" (2008 to 2013)

Sub Title for Mysore Lab Project: Engineering switch grass to confer broad spectrum disease resistance

PI: Raymond Huhnke; Co-PIs: Kiran Mysore and several others.

Granting Agency: National Science Foundation/Oklahoma EPSCoR

Award Amount: 15,000,000.000 (\$670,047 for Mysore lab)

Project Title: Plant genes involved in nonhost disease resistance (2009 to 2011)

PI: Kiran Mysore

Granting Agency: Oklahoma Center for the Advancement of Science and Technology (OCAST; Grant # PSB09-020)

Award amount: \$90,000 (direct cost)

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

American Association for Advancement of Science (AAAS)

American Society for Plant Biologists (ASPB)

International Society for Molecular Plant-Microbe Interactions (IS-MPMI)

POSTDOCTORAL TRAINEES

Dr. Choong-Min Ryu, Jan 2003-Sept 2004. Currently working as a Senior Research Scientist in the Laboratory of Microbial Genomics, Systems Microbiology Research Center, KRIBB, Daejeon 305-600, S. Korea.

Dr. Ajith Anand, May 2003 to July 2009. Currently a Research Scientist at Pioneer Hybrid.

Dr. Million Tadege, Sept 2003 to Aug 2009. Currently an Assistant Professor at Oklahoma State University.

Dr. Keri Wang, Nov 2004 to Feb 2009. Currently a Research Scientist at Bentham Science, London, Ontario, Canada.

Dr. Zarir Vaghchhipawala, Aug 2005 to present

Dr. Srinivasa Rao Uppalapati, Oct 2005 to present

Dr. Senthil-kumar Muthappa, Jan 2007 to present

Dr. Clemencia Rojas, Jan 2008 to present

Dr. Yasuhiro Ishiga, Nov 2008 to present

Dr. Seonghee Lee, Aug 2009 to present

Dr. Juan Carlos Serrani Yarce, Dec 2009 to present

STUDENT TRAINEES

Tamding Wangdi, Graduate Student, Aug 2005 to Dec 2007. Currently a postdoctoral fellow at Yale University.

Nabila Rouf, High School Student, May 2003 to Aug 2003

Cassiti Keeton, Undergraduate Student, summer 2003

Miki Hartwell, Undergraduate Student, March 2004 to Dec 2006

Bennett Joerger, Undergraduate Student, summer 2004

Amit Sharma, High School Student, summer 2004, summer 2005

Candice Jones, Undergraduate Student, May 2005 to Dec 2006

Holly Summers, Undergraduate Noble Research Scholar, summer 2005

Feng Zhang, Undergraduate Noble Research Scholar, summer 2006

Kelsey Gee, Undergraduate Student, summer 2007

Pooja Uppalapati, High School Student, summer 2007

Isaac Greenhut, Undergraduate Noble Research Scholar, summer 2008

David Short, Undergraduate Noble Research Scholar, summer 2009

OTHER TRAINEES

Younsig Kwak, Sr. Research Assistant, Aug 2003 to Dec 2004. Currently he is a graduate student at Washington State University, Pullman, WA.

Li Kang, Research Associate, Jan 2003 to Sep 2007. Currently Research Assistant in Monsanto.

Haidi Tu, Research Associate, Apr 2004 to Sep 2007. Currently Research Assistant in Monsanto

Miki Hartwell, Research Assistant, Nov 2007 Aug 2009. Currently a school teacher

Trina Cottrell, Hourly Worker, Oct 2006 to Oct 2007.

Dr. Hee-Kyung Lee, Research Associate, Sep 2007 to present (hourly worker, May 2007 to Sep2007)

Dr. Satish Nagaraj, Research Associate, Jan 2008 to present

Janie Gallaway, Greenhouse Assistant, Jan 2006 to present

Colleen Elles, Greenhouse Assistant, Jan 2009 to present

Bethany Bishop, Research Technician, Oct 2009 to present

Takako Ishiga, Research Assistant, Mar 2009 to present

Shipra Mittal, Research Associate, Sep 2009 to present

Yongfeng Zhang, Research Assistant, Oct 2009 to present

EXTERNAL RESEARCH COLLABORATORS

Dr. Adi Avni, Tel-Aviv University, Israel.

Dr. Carol Bender, Oklahoma State University, Stillwater, OK.

Dr. Steve Marek, Oklahoma State University, Stillwater, OK.

Dr. Vitaly Citovsky, State University of New York, Stony Brook, NY.

Dr. Kent Chapman, University of North Texas, Denton, TX.

Dr. Pascal Ratet, CNRS, France.

SCIENTIFIC COMMUNITY SERVICES

Development of protocols for tomato microarray hybridizations and involvement in optimizing conditions to make publicly available tomato cDNA microarrays.

Ad hoc reviewer for *USDA-NRI*, *NSF*, *BARD*, and *CPBR* grants.

Manuscript reviewer for *Plant Cell*, *Plant J.*, *Plant Physiol.*, *PNAS*, *JBC*, *Planta*, *MPMI*, and *MPP*.

Served as a co-advisor for a graduate student (Taming Wangdi) in the Dept. of Plant Pathology at Oklahoma State University.

Generated publicly available *Medicago truncatula* insertion mutants.

Organizer, 16th Annual Virology Retreat, The Noble Foundation, April 2007.

Served on a National Research Council grant Proposal Review Panel in Washington DC, Oct 24-25, 2008.

Served on the NSF Advisory Panel for the MRI FY10 PANEL IV, Nov 2 – 3, 2009,

Organizer, 30th Annual Crown Gall Conference, The Noble Foundation, Nov 20-22, 2009.

OUTREACH ACTIVITIES

Organized a large scale *Medicago truncatula* mutant screening event for the *Medicago* community during the summers of past five years and will continue to do so in the coming years.

Organized VIGS workshops for Noble Research scholars and OSP high school teacher trainees.

NOBLE FOUNDATION SERVICES

Member of the internal biosafety committee (2006-present)

Member of the Noble foundation 60th anniversary seminar committee (2005)

Member of the Plant Biology plant endophyte faculty search committee (2005)

Member of the Forage Improvement mycology faculty search committee (2005)

INVITED SEMINARS

14 Jan, 2001 9th International Plant and Animal genome meeting, San Diego, CA.

12 Feb, 2003 Dept. of Plant Pathology, Oklahoma State University, Stillwater, OK.

20 Mar, 2003 2nd Oklahoma Minisymposium on Molecular Plant Biology, Stillwater, OK.

14 Oct, 2003 Dept. of Crop Physiology, University of Agricultural Sciences, Bangalore, India.

15 Oct, 2003 Bioneers 2003 Symposium, Bangalore, India.

8 June, 2004 2nd International Conference on Legume Genomics and Genetics, Dijon, France.

16 Aug, 2004 25th Annual Crown Gall Conference, Urbana-Champaign, IL.

16 Sept, 2004 2nd Annual Noble-CNAP Retreat, Univ. of York, UK.

30 Sept, 2004 Dept. of Botany and Microbiology, University of Oklahoma, Norman, OK.

- 18 Oct, 2004 Seminar on Molecular Mechanisms of Plant-Pathogenic Microbe Interactions, Enoshima, Japan, sponsored by Ministry of Education, Science and Culture, Japan.
- 21 Oct, 2004 College of Agriculture, Okayama University, Okayama, Japan
- 29 Apr, 2005 Plant/Animal Genome Project Symposium, 2005 World DNA and Genome Day Conference, Dalian China.
- 13 Mar, 2006 Dept. of Crop Physiology, University of Agricultural Sciences, Bangalore, India.
- 18 Nov, 2006 27th Annual Crown Gall Conference, Williamstown, MA.
- 19 Jan, 2007 Dept. of Biochemistry and Molecular Biology, Oklahoma State University, Stillwater, OK.
- 5 Feb, 2007 Dept. of Biological Sciences, Wichita State University, Wichita, KS.
- 25 Mar, 2007 Model Legume Congress (MLC2007), Tunis, Tunisia.
- 2 June, 2008 North American Alfalfa Improvement Conference (NAAIC), Dallas, TX
- 4 Aug, 2009 American Phytopathological Society Annual Meeting, Portland, Oregon.
- 10 Sept, 2009 12th Annual NSF-Plant Genome Research Project Awardee Meeting, Arlington, VA.

PATENTS

- Mysore, K. S.**, and Gelvin, S. B. 2004. Enhanced plant cell transformation by addition of host genes involved in T-DNA integration. Patent No.: US 6,696,622 B1.
- Gelvin, S. B., **Mysore, K. S.**, Wang, K. and Frame, B. R. 2007. Methods and compositions for enhanced plant cell transformation. Patent No.: 7,279,336
- Anand, A. and **Mysore, K. S.** 2007 Improved method for *Agrobacterium*-mediated transformation of plants. Pending.
- Wang, K., Ryu, C-M. and **Mysore K. S.** 2008. Modification of plant disease resistance. Pending.
- Tadege, M., and **Mysore, K. S.** 2008. Methods and compositions for altering plant biomass. Provisional patent filed.
- Ryu, C. M. and **Mysore, K. S.** 2009. Root agroinoculation method for virus-induced gene silencing. Patent No.:US 7,476,780
- Uppalapati, S. R., **Mysore, K. S.**, Li, W., Sumner, L. W. and Dixon, R. A. 2009. Cotton root rot disease resistant plants. Pending
- Li, W., Uppalapati, S. R., **Mysore, K. S.**, Dixon, R. A. and Sumner, L. W. 2009. Metabolic engineering of plant disease resistance. Provisional patent filed.
- Vaghchhipawala, Z. and **Mysore K. S.** 2009. Methods and compositions for increasing plant transformation efficiency. Provisional patent filed.

PUBLICATIONS

Wangdi, T., Uppalapati, S. R., Ryu, C. M., Bender, C. L., and **Mysore, K. S.** 2010. A role for chloroplast-localized *Thylakoid formation 1 (THF1)* in bacterial speck disease development. *Plant Signaling & Behavior*, in press.

Senthil-kumar M. and **Mysore, K. S.** 2010. Assessing functional role of three water deficit stress-induced genes in nonhost disease resistance using virus-induced gene silencing in *Nicotiana benthamiana*. *Plant Signaling & Behavior*, in press.

Vaghchhipawala, Z., Rojas, C. M., Senthil-kumar, M. and **Mysore K. S.** 2010. Agroinoculation and Agroinfiltration: Simple tools for complex gene function analyses. *Methods in Molecular Biology*, in press.

Senthil-kumar, M., Udayakumar, M., and **Mysore K. S.** 2010. Functional characterization of water deficit stress-induced genes using RNAi. *Methods in Molecular Biology*, in press.

Cheng, X., Wen, J., Tadege, M., Ratet, P., **Mysore, K. S.** 2010. Reverse Genetics in *Medicago truncatula* Using *Tnt1* Insertion Mutants. *Methods in Molecular Biology*, in press.

Wangdi, T., Uppalapati, S. R., Ryu, C. M., Bender, C. L., and **Mysore, K. S.** 2010. A virus-induced gene silencing screen identifies a role for *Thylakoid Formation1* in *Pseudomonas syringae* pv. tomato induced disease symptom development in tomato and Arabidopsis. *Plant Physiology*, 152:281-292.

Senthil-kumar M., Hema, R., Suryachandra, T. R., Ramegowda H. V., Gopalakrishna, R., Rama, N., Udayakumar, M., and **Mysore K. S.** 2010. Functional characterization of three water deficit stress-induced genes in tobacco and *Arabidopsis*: an approach based gene down regulation. *Plant Physiology and Biochemistry*, 48(1):35-44.

Kim, S-C., Kang, L., Nagaraj, S., Blancaflor, E., **Mysore K. S***, and Chapman K*. 2009. Mutations in Arabidopsis fatty acid amide hydrolase reveal that catalytic activity influences growth but not sensitivity to abscisic acid or pathogens. *Journal of Biological Chemistry*, 284(49):34065-34074. (*co-corresponding authors).

Tadege, M., Wang, T. L., Wen, J., Ratet, P., and **Mysore K. S.** 2009. Mutagenesis and Beyond! Tools for understanding legume biology. *Plant Physiology*, 151(3):978-84.

Pang, Y., Wenger, J. P., Saathoff, K., Peel, G. J., Wen, J., Huhman, D., Allen, S. N., Tang, Y., Cheng, X., Tadege, M., Ratet, P., **Mysore, K. S.**, Sumner, L. W., Marks, D., and Dixon, R. A.. (2009). A WD40 repeat protein from *Medicago truncatula* is necessary for tissue-specific anthocyanin and proanthocyanidin biosynthesis, but not for trichome development. *Plant Physiology*, 151(3):1114-29.

Kwak, Y., Bae, D-W., **Mysore, K. S.**, and Kim, H-K. 2009. Different oxidative burst patterns occur during host and nonhost resistance responses triggered by *Xanthomonas campestris* in pepper. *Journal of Plant Biotechnology*, 36:244-254.

Uppalapati, S. R., Marek, S. M, Lee, H-K., Nakashima, J., Tang, Y., Sledge, M. K., Dixon, R. A., and **Mysore, K. S.** 2009. Global gene expression profiling during *Medicago truncatula-Phymatotrichopsis omnivora* interaction reveals a role for jasmonic acid, ethylene and the flavonoid pathway in disease development, *Molecular Plant-Microbe Interactions*, 22:7-17.

Kang, L., Wang, Y-S., Uppalapati S. R., Wang, K., Tang, Y., Vadapalli, V., Venables, B. J., Chapman, K. D., Blancaflor, E. B., and **Mysore, K. S.** 2008. Overexpression of a fatty acid amide hydrolase compromises innate immunity in *Arabidopsis*. *Plant Journal*, 56:336-349.

Vaghchhipawala, Z., and **Mysore, K. S.** 2008. Agroinoculation: A simple procedure for systemic infection of plants with viruses. *Methods in Molecular Biology*, 451:555-562.

Wang, H., Chen, J., Wen, J., Tadege, M., Li, G., Liu, Y., **Mysore, K. S.**, Ratet, P., Chen, R. 2008. Control of compound leaf development by FLO/LFY ortholog Single Leaflet1 (SGL1) in *Medicago truncatula*. *Plant Physiology*, 146:1759-1772.

Tadege, M., Wen, J., He, J., Tu, H., Kwak, Y., Eschstruth, A., Endre, G., Zhao, P. X., Chabaud, M., Ratet, P., and **Mysore, K. S.** 2008. Large scale insertional mutagenesis using the *Tnt1* retrotransposon in the model legume *Medicago truncatula*. *Plant Journal*, 54:335-347.

Uppalapati, S. R., Ishiga, Y., Wangdi, T., Urbanczyk-Wochniak, E., Ishiga, T., **Mysore, K. S.**, Bender, C. L. 2008. Pathogenicity of *Pseudomonas syringae* pv. *tomato* on tomato seedlings: Phenotypic and gene expression analyses of the virulence function of coronatine. *Molecular Plant-Microbe Interactions*, 21:383-395.

Anand, A., Uppalapati, S. R., Ryu, C. M., Allen, S., N., Kang, L., Tang, Y., and **Mysore, K. S.** 2008. Salicylic acid and systemic acquired resistance play a role in attenuating crown gall disease caused by *Agrobacterium tumefaciens*. *Plant Physiology*, 146:703-715.

Senthil-Kumar, M., Hema, R., Anand, A., Kang, L., Udayakumar, M., and **Mysore, K. S.** 2007. A systematic study to determine the extent of gene silencing in *Nicotiana benthamiana* and other Solanaceae species when heterologous gene sequences are used for virus-induced gene silencing. *New Phytologist*, 176:882-791.

Anand, A., Krichevsky, A., Schornack, S., Lahaye, T., Tzfira, T., Tang, Y. Citovsky, V. and **Mysore, K. S.** 2007. VIP2- a VirE2 interacting protein is required for *Agrobacterium* T-DNA integration in plants. *Plant Cell*, 19:1695-1708.

Uppalapati, S. R., Ishiga, Y., Anand, A., Wangdi, T., Kunkel, B., **Mysore, K. S.**, and Bender, C. L. 2007. The phytotoxin coronatine contributes to pathogen fitness and is required for

suppression of salicylic acid accumulation in tomato inoculated with *Pseudomonas syringae* pv. *tomato* DC3000. *Molecular Plant-Microbe Interactions*, 20:955-965.

Wang, K. Kang, L., Anand, A. and **Mysore, K. S.** 2007. Monitoring *in planta* bacterial infection and population at both cellular and whole plant levels using *GFPuv*. *New Phytologist*, 174:212-223. **(Cover page article).**

Anand, A., Vaghchhipawala, Z., Ryu, C. M., Kang, L., Wang, K., del-Pozo, O., Martin, G. B., and **Mysore, K. S.** 2007. Identification and characterization of genes involved in *Agrobacterium*-mediated plant transformation by virus-induced gene silencing. *Molecular Plant-Microbe Interactions*, 20:41-52.

Senthil-kumar, M., Govind, G., Kang, L., **Mysore, K. S.**, and Udayakumar, M. 2007. Functional characterization of *Nicotiana benthamiana* homologs of peanut water deficit-induced genes by virus-induced gene silencing. *Planta*, 225(3):523-39.

Lei, Z., Anand, A., **Mysore, K. S.** and Sumner, L. W. 2007. Electroelution of intact proteins from SDS-PAGE gels and their subsequent MALDI-TOF MS analysis. *Methods in Molecular Biology*, 355:353-364.

Xu, P., Zhang, Y., Kang, L., Roossinck, M. J. and **Mysore, K. S.** 2006. Computational estimation and experimental verification of off-target silencing during post-transcriptional gene silencing in plants. *Plant Physiology*, 142:429-440.

Hwang, H., **Mysore, K. S.** and Gelvin, S. B. 2006. Transgenic *Arabidopsis* plants expressing *Agrobacterium tumefaciens* VirD2 protein are less susceptible to *Agrobacterium* transformation. *Molecular Plant Pathology*, 7:473-484.

Ryu, C. M., Anand, A., Kang, L., and **Mysore, K. S.** 2004. Agrodrench: a novel and effective agroinoculation method for virus-induced silencing in roots and diverse Solanaceous species. *Plant Journal*, 40:322-331.

Kang, L., Tang, X., and **Mysore, K. S.** 2004. *Pseudomonas* type III effector AvrPto suppresses the programmed cell death induced by some nonhost pathogens in *Nicotiana benthamiana* and tomato. *Molecular Plant-Microbe Interactions*, 17:1328-1336.

Anand, A., Lei, Z., Sumner, L. W., **Mysore, K. S.**, Arakane, Y., Bockus, W. W., and Muthukrishnan, S. 2004. Pathogenesis-related proteins from apoplastic fluid of a transgenic wheat line exhibit combinatorial antifungal activity. *Molecular Plant-Microbe Interactions*, 17:1306-1317.

Ryu, C. M., Murphy, J. F., **Mysore, K. S.**, and Kloepper, J. W. 2004. Plant growth-promoting rhizobacteria protect *Arabidopsis thaliana* against Cucumber mosaic virus by a novel signaling pathway. *Plant Journal*, 39: 381-392.

Mysore, K. S[#], D'Ascenzo, M, He, X., and Martin, G. B. 2003. Overexpression of the disease resistance gene *Pto* in tomato induces gene expression changes similar to immune responses in human and fruitfly. *Plant Physiology*, 132: 1901-1912. (**# corresponding author**)

Zhu Y, Nam J, Humara JM, **Mysore KS**, Lee LY, Cao H, Valentine L, Li J, Kaiser AD, Kopecky AL, Hwang HH, Bhattacharjee S, Rao PK, Tzfira T, Rajagopal J, Yi H, Veena, Yadav BS, Crane YM, Lin K, Larcher Y, Gelvin MJ, Knue M, Ramos C, Zhao X, Davis SJ, Kim SI, Ranjith-Kumar CT, Choi YJ, Hallan VK, Chattopadhyay S, Sui X, Ziemienowicz A, Matthyse AG, Citovsky V, Hohn B, Gelvin SB. 2003. Identification of *Arabidopsis rat* mutants. *Plant Physiology*, 132: 494-505.

Mysore, K. S., Crasta, O. R., Tuori, R. P., Folkerts, O., Swirsky, P. B., and Martin, G. B. 2002. Comprehensive transcript profiling of Pto- and Prf-mediated host defense responses to infection by *Pseudomonas syringae* pv. *tomato*. *Plant Journal*, 32 (3): 299-315.

Yi, H. C., **Mysore, K. S.**, and Gelvin, S. B. 2002. Expression of the *Arabidopsis* histone *H2A-1* gene correlates with susceptibility to *Agrobacterium* transformation. *Plant Journal*, 32 (3): 285-298.

Mysore, K. S., Nam, J., and Gelvin, S. B. 2000. An *Arabidopsis* histone H2A mutant is deficient in *Agrobacterium* T-DNA integration. *Proceedings of the National Academy of Sciences, USA*, 97: 948-953.

Mysore, K. S., Kumar, R. C. T., and Gelvin, S. B. 2000. *Arabidopsis* ecotypes and mutants that are recalcitrant to *Agrobacterium* root transformation are susceptible to germ-line transformation. *Plant Journal*, 21: 9-16.

Nam, J*, **Mysore, K. S***, Zheng, C. J., Knue, M. K., Matthyse, A. G., and Gelvin, S. B. 1999. Identification and characterization of T-DNA tagged *Arabidopsis* mutants that are resistant to *Agrobacterium tumefaciens* transformation. *Molecular and General Genetics*, 261:429-438. (***Co-first authors**).

Mysore, K. S., Bassuner, B., Deng, X.-B., Darbinian, N. S., Motchoulski, A., Ream, W., and Gelvin, S. B. 1998. Role of the *Agrobacterium tumefaciens* VirD2 protein in T-DNA transfer and integration. *Molecular Plant-Microbe Interactions*, 11(7): 668-683.

Nam, J., **Mysore, K. S.**, and Gelvin, S. B. 1998. *Agrobacterium* transformation of the radiation hypersensitive *Arabidopsis* mutants *uvh1* and *rad5*. *Molecular Plant-Microbe Interactions*, 11(11): 1136-1141.

Nichols, R. L., Miller, W. B., **Mysore K.**, and Perkins, H. H. Jr. 1998. Honeydew sugar estimates differ among reducing-sugar test methods. *Proceedings of Beltwide Cotton Conference*, 2: 1547-1549.

Mysore, K. S., and Baird Wm. V. 1997. Nuclear DNA content in species of *Eleusine* (Gramineae): A critical re-evaluation using laser flow cytometry. *Plant Systematics and Evolution*, 207: 1-11.

Baird, Wm. V., Morejohn L., Zeng L., **Mysore, K. S.**, and Kim H-H. 1996. Genetic, molecular and biochemical characterization of dinitroaniline herbicide-resistance in goosegrass (*Eleusine indica*). *Second International Weed Control Congress. Copenhagen. Proceedings*, 2: 551-557.

Mysore, K. S., and Baird Wm. V. 1995. Molecular characterization of the tubulin-related gene families in herbicide-resistant and -susceptible goosegrass (*Eleusine indica*). *Weed Science*, 43: 28-33.

INVITED REVIEW ARTICLES

Senthil-Kumar, M. and **Mysore K.S.** 2010. Caveat of RNAi in plants: the off-target effect. *Methods in Molecular Biology*, in press.

Uppalapati, S. R., Young, C A., Marek, S. M., and **Mysore, K. S.** 2010. Phymatotrichum (cotton) root rot caused by *Phymatotrichopsis omnivora*: Retrospects and prospects. *Molecular Plant Pathology*, in press.

Senthil-Kumar, M., Gowda, H. V. R., Hema, R., **Mysore, K. S.**, and Udayakumar, M. 2008. Virus-induced gene silencing and its application in characterizing genes involved in abiotic stress tolerance. *Journal of Plant Physiology*, 165:1404-1421.

Senthil-Kumar, M., Anand A., Uppalapati, S. R., and **Mysore K.S.** 2008. Virus-induced gene silencing and its applications. *CAB Reviews: Perspectives in Agriculture, Veterinary Science, Nutrition and Natural Resources*, 3: No. 011.

Kilaru, A., Blancaflor, E. B., Venables, B. J., Tripathy, S., **Mysore, K. S.**, and Chapman, K. D. 2007. The *N*-Acylethanolamine-Mediated Regulatory Pathway in Plants. *Chemistry and Biodiversity*, 4:1933-1955.

Tadege, M., Ratet, P. and **Mysore, K. S.** 2005. Insertional mutagenesis: a Swiss Army Knife for functional genomics of *Medicago truncatula*. *Trends in Plant Science*, 10:229-235.

Mysore, K. S., and Ryu, C. M. 2004. Nonhost resistance: how much do we know? *Trends in Plant Science*, 9: 97-104.

Mysore, K. S., Tuori, R. P., and Martin, G. B. 2001. *Arabidopsis* genome sequence as a tool for functional genomics in tomato. *Genome Biology*, 2: 1003.1-1003.4.

BOOK CHAPTERS

Anand A., Vaghchhipawala, Z. and **Mysore K. S.** 2010. Genomics of *Agrobacterium* -plant interaction: an approach to refine the plant transformation technology. In ***Plant Transformation Technologies***, Neal Stewart, Alisher Touraev, Vitaly Citovsky, and Tzvi Tzfira (Editors), ISUP, a division of John Wiley & Sons, Inc. Ames, Iowa. In press.

Ratet, P., Wen, J., Cosson, V., Tadege, M., and **Mysore, K. S.** 2010. *Tnt1* induced mutations in *Medicago*: Characterisation and Applications. In ***The Handbook of Plant Mutation Screening (Mining of Natural and Induced Alleles)***, K. Meksem and G. Kahl (Editors), WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim, P. 83-99.

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