# KIRANKUMAR S. MYSORE

**PROFESSOR**
Plant Biology Division
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## EDUCATION

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

## PROFESSIONAL EXPERIENCE

6/12 – Present **Professor,** Plant Biology Division, Samuel Roberts Noble Foundation.
08/03 – Present **Adjunct Professor,** Dept. of Plant Pathology, Oklahoma State Univ.
10/07 – 5/12 **Associate Professor,** Plant Biology Division, Samuel Roberts Noble Foundation.
08/02 – 09/07 **Assistant Professor,** Plant Biology Division, Samuel Roberts Noble Foundation
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

Leadership award from Ardmore Leadership Program (2015)
Participant of the Noble Foundation Leadership Program (2014-2015)
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: **Kiran Mysore** and Adi Avni
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 ($796,292 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)**

**Project Title:** Characterization of *Medicago truncatula* genes involved in resistance/tolerance to Asian soybean rust (2011-2012)
PI: **Kiran Mysore**; Co-PI: Srinivasa Rao Uppalapati
Granting Agency: BASF Plant Sciences
**Award amount: $205,072**

**Project title:** MRI: Acquisition of a UPLC/MS/SPE/NMR for plant metabolomics (2011-2015)
**Source of support:** National Science Foundation
PI: Lloyd Sumner, Co-PIs: Randy Allen, Richard Dixon, **Kiran Mysore**, and Joel Smith
Granting Agency: National Science Foundation (NSF Grant #DBI-1126719)
**Award amount**: **$1,057,587**

**Project Title:** GEPR: Genetic and cellular dissection of mutualistic plant-microbe symbioses in *Medicago truncatula* (2012-2016).
PI: Michael Udvardi; Co-PIs: **Kiran Mysore**, Rujin Chen, Rebecca Dickstein, Maria Harrison, and Darla Sherrier
Granting Agency: National Science Foundation Plant Genome Program (Grant # IOS-1127155)
**Award amount: $6,733,426 ($1,272,954 for Mysore lab)**

**Project Title:** Epigenetic breeding in crops (2013-2016).
PI: Sally Mackenzie; Co-PIs: **Kiran Mysore**, Ismail Dweikat, Steve Jacobsen, Joe Tohme, and Legkari Legkari
Granting Agency: Bill and Melinda Gates Foundation
**Award Amount: $2,996,072 ($235,465 direct cost for Mysore lab)**

## 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 DuPont Pioneer Inc.
Dr. Million Tadege, Sept 2003 to Aug 2009. Currently an Associate 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 Mar 2010. Currently a Research Scientist at Monsanto.
Dr. Srinivasa Rao Uppalapati, Oct 2005 to Oct 2008; Research Scientist from Oct 2008 to May 2012. Currently a Research Investigator at DuPont Crop Protection, Newark, DE.
Dr. Balaji Vasudevan, June 2010 to July 2012. Currently a Research Scientist at Cibus.
Dr. Senthil-kumar Muthappa, Currently Staff Scientist III at National Institute for Plant Genome Research, New Delhi, India.
Dr. Juan Carlos Serrani Yarce, Dec 2009 to July 2013. Currently a postdoctoral Fellow at University of North Texas, Denton, TX.
Dr. Yasuhiro Ishiga, Nov 2008 to Feb 2014. Currently an Assistant Professor at Tsukuba University, Japan.
Dr. Seonghee Lee, Aug 2009 to 2014. Currently an Assistant Professor, University of Florida, Gulf Coast Research & Education Center.
Dr. Amita Kaundal, Aug 2011 to 2014. Currently a postdoctoral fellow at University of California, Davis.
Dr. Clemencia Rojas, Jan 2008 to June 2015; Research Scientist from Jan 2014. Currently an Assistant Professor at University of Arkansas, Fayetteville, AR.
Dr. Ramu S. Vemanna, Aug 2014 to July 2016 (Fullbright Scholar). Currently a Research Associate at the University of Agricultural Sciences, India.
Dr. Saritha, K. V., Jan 2015 to Jan 2016 (Raman Postdoctoral Fellowship recipient). Currently an Assistant Professor at Tirupathi University, India.
Dr. Upinder Singh Gill, July 2012 to present
Dr. Prasanna Kankanala, May 2014 to present
Dr. Dharmendra Singh, May 2014 to present
Dr. Jose Fonseca, Aug 2015 to present
Dr. Tomson Mani, Aug 2016 to present (Raman Postdoctoral Fellowship recipient)

## STUDENT TRAINEES

Senthil-kumar Muthappa, Feb 2005 to May 2005, Graduate Student trainee. Later was a postdoctoral fellow in my lab.
Tamding Wangdi, Graduate Student, Aug 2005 to Dec 2007. Currently a postdoctoral fellow.
Waheed Arshad, Graduate Student trainee, Jan 2008 to June 2008.
Rame Gowda, Graduate Student trainee, Oct 2008 to Jan 2009. Currently a postdoctoral fellow.
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, Currently a Ph.D student at UC Davis.
David Short, Undergraduate Noble Research Scholar, summer 2009
Pierce Young, Undergraduate Noble Research Scholar, summer 2011
Ying Ying Lei, High School Student, summer 2011
Conner Boatright, High School Student, summer 2011
Moumita Saha, Undergraduate Student, summer 2012
Kristen Clermont, Undergraduate Noble Research Scholar, summer 2012
Katelyn Kuck, Undergraduate Noble Research Scholar, summer 2013
Avery Bokovoy, Undergraduate Student, summer 2014

## OTHER TRAINEES

Youn-Sig Kwak, Sr. Research Assistant, Aug 2003 to Dec 2004. Currently an Assistant Professor in Gyeongsang National University, Jinju, Korea.
Li Kang, Research Associate, Jan 2003 to Sep 2007. Currently a Research Assistant in Monsanto.
Haidi Tu, Research Associate, Apr 2004 to Sep 2007. Currently a Research Assistant in Monsanto
Miki Hartwell, Research Assistant, Nov 2007 Aug 2009. Currently a school teacher
Vantahana Doraiswamy, Research Assistant, Oct 2008 to Oct 2009. Currently Sr. Res. Associate at Chromatin, Inc.
Bethany Bishop, Research Technician, Oct 2009 to Feb 2010. Currently Research Assistant at Noble Foundation.
Trina Cottrell, Hourly Worker, Oct 2006 to Oct 2007.
Dr. Satish Nagaraj, Research Associate, Jan 2008 to Apr 2011. Currently a Business Development Manager at Syngene International, India.

Amita Kaundal, Research Technician, May 2010 to Mar 2011. Currently a postdoctoral fellow in my lab.
Shipra Mittal, Research Associate, Sep 2009 to Feb 2013. Currently Research Associate at DuPont Pioneer Inc.
Colleen Elles, Greenhouse Assistant, Jan 2009 to Mar 2012.
Yongfeng Zhang, Research Assistant, Oct 2009 to May 2012.
Takako Ishiga, Research Assistant, Mar 2009 to Dec 2012.
Swetha Vinukonda, Research Technician, Mar 2012 to Dec 2012.
Yewei Wang, Research Technician, Oct 2012 to Jan 2013.
Adrianne Dastgir, May 2014 to Dec 2014.
Dr. Hee-Kyung Lee, Research Associate, Sep 2007 to present .
Janie Gallaway, Greenhouse Assistant, Jan 2006 to present.
Sunhee Oh, Research Assistant, Apr 2014 to present.
Bikram Pant, Sr. Research Associate, Jan 2016 to present.
Vidhya Raman, Research Technician, June 2016 to present.

## VISITING RESEARCHERS

Sivalingam Nanjappan, Scientist, Central Institute for Arid Horticulture, ICAR, India, Sep 2012 to Dec 2012.
Yuzhu Lu, Associate Professor, College of Bioscience and Biotechnology, Yangzhou University, Yangzhou, China, March 2013 to Aug 2013.

## EXTERNAL KEY RESEARCH COLLABORATORS

Dr. Randy Allen, Oklahoma State University, Ardmore, OK.
Dr. Rick Dixon, University of North Texas, Denton, TX.
Dr. Vitaly Citovsky, State University of New York, Stony Brook, NY.
Dr. Kent Chapman, University of North Texas, Denton, TX.
Dr. Stan Gelvin, Purdue University, West Lafayette, IN.
Dr. Hisashi Koiwa, Texas A&M University, College Station, TX.
Dr. Sally Mackenzie, University of Nebraska, Lincoln, NE.
Dr. Steve Marek, Oklahoma State University, Stillwater, OK.
Dr. Sona Pandey, Donald Danforth Plant Science Center, St. Louis, MO.
Dr. Pascal Ratet, CNRS, France.

## SCIENTIFIC COMMUNITY SERVICES

Organizer of Microbiome Symposium at the Noble Foundation, Oct 7-8, 2016.
Organizer and chair of a special session on *Agrobacterium* biology at the International Society of Molecular Plant-Microbe Interactions XVII Congress, Portland, OR. July 17-21, 2016.
Served on USDA-NIFA grant review panel for Alfalfa and Forage Research program, June 13-14, 2016.

Organizer of Plant Biology Symposium to celebrate 25th anniversary of Plant Biology Division, Mar 26-28, 2014.
Organizer of T-DNA integration and genome engineering workshop at the Noble Foundation, Nov 21-21, 2013.
Panel member at the APS Thought Leaders Meeting, St. Paul, MN, May 12-13, 2013.
Organizer, 30th Annual Crown Gall Conference, The Noble Foundation, Nov 20-22, 2009.
Served on the NSF Advisory Panel for the MRI FY10 PANEL IV, Nov 2 – 3, 2009.
Served on a National Research Council grant Proposal Review Panel in Washington DC, Oct 24-25, 2008.
Served as a co-advisor for a graduate student (Tamding Wangdi) in the Dept. of Plant Pathology at Oklahoma State University.
Organizer, 16th Annual Virology Retreat, The Noble Foundation, April 2007.
Generated publicly available *Medicago truncatula* insertion mutants.
Ad hoc reviewer for *USDA-NRI, NSF, BARD, BSF,* and *CPBR* grants.
Manuscript reviewer for *Plant Cell*, *Plant J.*, *Plant Physiol.*, *Science*, *Nature Series*, *Cell Host & Micorbe*, *New Phytologist*, *PNAS, JBC*, *Planta*, *MPMI*, *MPP*, *BMC Plant Biology*, *Mobile DNA*, *Planta*, etc.

## EDITORIAL BORAD SERVICES

Associate Editor for BMC Plant Biology, 2011-present.
Review Editor for Frontiers in Plant-Biotic Interactions, 2011-present.
Editor of PeerJ Journal, 2012-present.
Editor of Bioenergy Research, 2013-present.

## OUTREACH ACTIVITIES

Development of protocols for tomato microarray hybridizations and involvement in optimizing conditions to make publicly available tomato cDNA microarrays.
Developed a large collection of publicly available *M. truncatula Tnt1* insertion mutants.
Currently developing *Tnt1*-based activation tagged lines in *M. truncatula*.
Currently developing a collection of *Brachypodium distachyon Tnt1* insertion mutants.
Organized a large scale *M. truncatula* mutant screening event for the *Medicago* community during the summers of past eight 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 plant physiologist faculty search committee (2016)
Participant of Noble Leadership Program (2014-present)
Co-lead of plant-microbe interaction cluster (2013-present)
Member of the data management committee (2013-present)
Chair of the internal biosafety committee (2015-present; member since 2006)

Member of strategic facility planning committee (2015)
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.
16 Mar, 2010 BASF Plant Science Company, Limburgerhof, Germany.
8 Nov, 2010 Dept. of Plant Pathology, University of California, Davis. CA.
21 Feb, 2011 Dept. of Entomology and Plant Pathology, Oklahoma State University
13, Sep, 2011 Alliance of Independent Plant Institutes Meeting, The Donald Danforth Plant Science Center, St. Louis, MO.
28 Sep, 2011 Dept. of Stress Biology, John Innes Centre, Norwich, UK.
29 Sep, 2011 Medicago Resource Workshop, John Innes Centre, Norwich, UK.
3 Oct, 2011 Institut des Sciences du Vegetale, CNRS, Gif sur Yvette, France.
19 June 2012 Dept. of Crop Physiology, University of Agricultural Sciences, Bangalore, India.
28 June 2012 India Tobacco Company LTD, Bangalore, India
6 Aug 2012 American Phytopathological Society Annual Meeting, Providence, Rhode Island.
6 Sep 2012 Dept. of Horticulture, University of Wisconsin, Madison, WI.
2 Dec 2012 33rd Annual Crown Gall Conference, Hiram, OH.
23 Apr 2013 Plenary Speaker, Oklahoma NSF EPSCoR State Conference, Oklahoma City, OK.

29 Jan 2014 Department of Plant Pathology and Microbiology, Texas A&M University, College Station, TX.
4 Mar 2014 Center for Plant Science Innovation, University of Nebraska, Lincoln, NE.
8 Jul 2014 Plenary Speaker, 7th International Conference on Legume Genetics and Genomics, Saskatoon, Canada.
11 Sep 2014 Keynote speaker and chair, 2nd Plant Genomics Congress, St. Louis, MO.
14 Nov 2014 Dow Agro Sciences, Indianapolis, IN.
24 Nov 2014 Center for Desert Agriculture, King Abdullah University of Science and Technology, Thuwal, Saudi Arabia.
14 Mar 2015 Plant-microbe interactions symposium, The Samuel Roberts Noble Foundation, Ardmore, OK.
17 June 2015 *Brachypodium* International Conference, University of Massachusetts, Amherst, MA.
21 Oct 2015 Plenary speaker, 2015 Korean Society of Plant Pathology Fall Meeting and International Conference, Geoje, South Korea.
8 Dec 2015 Keynote speaker, XVI National Congress of Biochemistry and Plant Molecular Biology; 9th Mexico-USA Plant Molecular Biology Symposium, Queretaro, Mexico.
5 Feb 2016 Department of Biology, University of North Texas, Denton, TX.
1 June 2016 Molecular Plant Sciences, Washington State University, Pullman, WA.
17 July 2016 Chair, organizer and speaker at a special session at the International Society of Molecular Plant-Microbe Interactions XVII Congress, Portland, OR.
14 Sep 2016 First Euro-Mediterranean *Agrobacterium* meeting, Gif-sur-Yvette, France.
15 Sep 2016 Biotic Interactions Department, Institute of Plant Sciences Paris-Saclay, Gif-sur-Yvette, France.
19 Sep 2016 2016 *Medicago* Genetics and Genomics Conference, Noble Foundation, Ardmore, OK.
14 Jan 2017 International Plant and Animal Genome Conference XXV, San Diego, CA (Scheduled).

## 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 6696622 B1.

Gelvin, S. B., **Mysore, K. S.**, Wang, K. and Frame, B. R. 2007. Methods and compositions for enhanced plant cell transformation. Patent No. US 7279336 B2.

Ryu, C. M. and **Mysore, K. S.** 2009. Root agroinoculation method for virus-induced gene silencing. Patent No. US 7476780 B2.

Anand, A. and **Mysore, K. S.** 2011. Method for *Agrobacterium*-mediated transformation of plants. Patent No. US 8053638 B2.

Uppalapati, S. R., **Mysore, K. S.**, 2012, Li, W., Sumner, L. W. and Dixon, R. A. Disease resistant plants. Patent No. US 8138392 B2.

Vaghchhipawala, Z. and **Mysore K. S.** 2014. Methods and compositions for increasing plant transformation efficiency. Patent No. : US 8669417 B2.

Tadege, M., and **Mysore, K. S.** 2015. Methods and compositions for altering plant biomass. Patent No. : US 9074216 B2.

Li, W., Uppalapati, S. R., **Mysore, K. S.**, Dixon, R. A., and Sumner, L. W. 2016. Metabolic engineering of plant disease resistance. Patent No. : US 9238821 B2.

Wang, K., Ryu, C-M., and **Mysore K. S.** Modification of plant disease resistance. Patent Application No. US 2009/0138988 A1, pending.

Chen, R., Chen, J., Ge, L., Ishiga, Y., Uppalapati, S. R., and **Mysore K. S.** Altered leaf morphology and enhanced agronomic properties in plants. Patent Application No. US 2011/0289625 A1, pending.

**Mysore, K. S.**, Kaundal, A., and Lee, S., Methods and compositions for stomata regulation, plant immunity, and drought tolerance. Patent Application No. US 2016/62278881 A1, pending.

**PUBLICATIONS**

## 2016

**150.** Serba, D.D., Uppalapati, S.R., Krom, N., Mukherjee, S., Tang, Y., **Mysore, K.S.,** and Saha, M.C. 2016. Transcriptome analysis in switchgrass discloses ecotype difference in photosynthetic efficiency. ***BMC Genomics***, in press.

**149.** Gill, U. S., Serrani-Yarce, J. C., Lee, H-Y., and **Mysore, K. S.** 2016. Tissue culture (somatic embryogenesis) induced *Tnt1* retrotransposon based mutagenesis in *Brachypodium distachyon*. ***Methods in Molecular Biology***, in press.

**148.** Cheng, X., Krom, N., Zhang S., **Mysore, K.S.,** Udvardi, M., and Wen, J. 2016. Enabling reverse genetics in *Medicago truncatula* using high throughput sequencing for *Tnt1* flanking sequence recovery. ***Methods in Molecular Biology***, in press.

**147.** Ishiga, Y., Ishiga, T., and **Mysore K. S.** 2016. *Pseudomonas syringae* flood-inoculation method in *Arabidopsis*. ***Bio-protocol***, in press.

**146.** Karlen, S. D., Peck, M. L., Zhang, C., Smith, R., Padmakshan, D., Helmich, K. E., Free, H. C. A., Lee, S., Smith, B. G., Lu, F., Sedbrook, J. C., Sibout, R., Grabber, J. H., Runge, T. M., **Mysore, K. S.**, Harris, P. J., Bartley, L E., and Ralph, J. 2016. Monolignol-ferulate

conjugates are naturally incorporated into plant lignins. ***Science Advances***, Oct 14; 2(10):e1600393.

**145.** Fonouni-Farde, C., Baudin, M., Brault, M., Wen, J., **Mysore, K. S.**, Niebel, A., Frugier, F., and Diet, A. 2016. DELLA-mediated gibberellin signaling is a direct regulator of Nod Factor signaling and rhizobial infection. ***Nature Communications***, Sep 2, 7:12636, doi: 10.1038/ncomms12636.

**144.** Ramu, V. S., Amarnatha Reddy, V., Easwaran, M., Babitha, K. C., Rao, H., Ghanti, K., **Mysore, K. S.**, and Udayakumar, M. 2016. Aldo-keto reductase enzymes detoxify glyphosate and improve herbicide resistance in plants. ***Plant Biotechnology Journal,*** Sep 9. doi: 10.1111/pbi.12632.

**143.** Zhang, Z., Hu, X., Zhang, Y., Miao, Z., Xie, C., Meng, X., Deng, J., Wen, J., **Mysore, K. S.**, Fruiger, F., Wang, T., and Dong, J. 2016. Opposing control by transcription factors MYB61 and MYB3 increases freezing tolerance by relieving C-repeat binding factor suppression. ***Plant Physiology***, 172(2):1306-1323, DOI:10.1104/pp.16.00051.

**142.** Boivin, S., Kazmierczak, T., Brault, M., Wen, J., Gamas, P., **Mysore, K. S.,** and Frugier, F. 2016. Different cytokinin CHK receptors regulate nodule initiation as well as later nodule developmental stages in *Medicago truncatula*. ***Plant Cell & Environment***, 39(10):2198-2209, doi: 10.1111/pce.12779.

**141.** Wang, C., Yu, H., Luo, L., Duan, L., Cai, L., He, X., Wen, J., **Mysore, K. S.,** Li, G., Xiao, A., Duanmu, D., Cao, ZH., and Zhang, Z. 2016. *NODULES WITH ACTIVATED DEFENSE 1* is required for maintenance of rhizobial endosymbiosis in *Medicago truncatula*. ***New Phytologist***, 212(1):176-191, doi: 10.1111/nph.14017.

**140.** Cerri, M. R., Frances, L., Kelner, A., Fournier, J., Middleton, P. H., Auriac, M-C., **Mysore, K. S.**, Wen, J., Erard, M., Barker, D. G., Oldroyd, G. E., and Carvalho-Niebel, F. 2016. The symbiosis-related ERN ERF transcription factors act in concert to coordinate rhizobial host root infection. ***Plant Physiology***, 171(2):1037-1054, doi:10.1104/pp.16.00230.

**139.** Ishiga, Y., Ishiga, T., Ikeda, Y., Matsuura, Y., and **Mysore, K. S.** 2016. Chloroplast NADPH-dependent thioredoxin reductase modulates nonhost disease resistance against *Pseudomonas syringae* pathogens in *Arabidopsis*. ***PeerJ***, 4:e1938, DOI 10.7717/peerj.1938.

**138.** Huisman, R., Hontelez, J., **Mysore, K. S.,** Wen, J., Bisseling, T., Limpens, E. 2016. A symbiosis-dedicated SYNTAXIN OF PLANTS 13II isoform controls the formation of a stable host-microbe interface in symbiosis. ***New Phytologist***, 211(4):1338-1351, doi: 10.1111/nph.13973.

**137.** Jaudal, M., Zhang, L., Che, C., Hurley, D. G., Thompson, G., Wen, J., **Mysore, K. S.,** and Putterill, J. 2016. *MtVRN2* is a Polycomb *VRN2-like* gene which represses the transition to flowering in the model legume *Medicago truncatula*. ***Plant Journal***, 86(2):145-160, doi: 10.1111/tpj.13156.

**136.** Veerappan, V., Jani, M., Kadel, K., Troiani, T., Gale, R., Mayes, T., Shulaev, E., Wen, J., **Mysore, K. S.,** Azad, R. K., and Dickstein, R. 2016. Rapid identification of causative insertions underlying *Medicago truncatula Tnt1* mutants defective in symbiotic nitrogen fixation from a forward genetic screen by whole genome sequencing. ***BMC Genomics***, 17(1):141, doi: 10.1186/s12864-016-2452-5.

**135.** Roque, E. M., Fares, M. A., Yenush, L., Rochina, M. C., Wen, J., **Mysore, K. S.**, Gómez-Mena, C., Beltrán, J. P., and Cañas, L. A. 2016. Evolution by gene duplication of *Medicago truncatula* PISTILLATA-like transcription factors. ***Journal of Experimental Botany***, 67(6):1805-1817, doi: 10.1093/jxb/erv571.

**134.** Nagaraj, S., Senthil-Kumar, M., Wang, K., and **Mysore, K. S.** 2016. Plant ribosomal proteins, RPL12 and RPL19, play a role in nonhost disease resistance against bacterial pathogens. ***Frontiers in Plant Science***, 6:1192, doi: 10.3389/fpls.2015.01192.

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## 2015

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## BOOKS EDITED

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