

# Yi Li

## *Horticultural Plant Biotechnologist*



### Highlighted Items

- **The ‘gene-deletor’ technology developed in Li Laboratory** may offer a useful tool to remove all functional transgenes from pollen, seeds, fruits and other edible parts of genetically modified (GM) crops when needed. The technology could address the environmental and food safety issues raised against GM plants. For more information, please visit the gene-deletor website (<http://gene-deletor.net/>).
  
- **The book: Plant Biotechnology in Ornamental Horticulture** (<http://www.haworthpress.com/store/product.asp?sku=5948>) edited by Y. Li & Y. Pei published by Haworth Press, New York, March 2007.
  
- **A research article** by Zheng, Deng, Luo, Duan, Chen, McAvoy, Song, Pei and Li (2007): “The 5’ CaMV 35S gene sequence alters expression levels and patterns of adjacent tissue- and organ-specific genes”. Plant Cell Reports (on line early) **was highlighted and evaluated by Faculty of 1000**. Faculty Of 1000: “Key articles selected and evaluated by a global faculty of top researchers and clinicians. Faculty of 1000 Biology and Medicine are authoritative online services in which almost 5,000 leading researchers and clinicians share their expert opinions by highlighting and evaluating the most important articles in biology and medicine.”

### Contact Information

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## Education

Ph. D.: Department of Biology, College of Environmental Science and Forestry, State University of New York, Syracuse, NY, USA

B. S.: Department of Forestry, Beijing Forestry College (now Beijing Forestry University), Beijing, China.

## Working Experience

**2007.08-:** Professor, Department of Plant Science, University of Connecticut.

**2001.08 - 2007.08:** Associate Professor, Department of Plant Science, University of Connecticut.

**2006.05 - Present:** PI/Director, New England Center for Invasive Plants.

**1998.08 - Present:** Head, Transgenic Plant Facility, University of Connecticut.

**1998.08 - 2001.08:** Assistant Professor, Department of Plant Science, University of Connecticut.

**1994.01 - 1998.08:** Assistant Professor, Division of Biology, Kansas State University.

**1990.07 - 1994.01:** Postdoctoral Fellow, Department of Biochemistry, University of Missouri-Columbia.

## Research Interests

- Development of sterile cultivars of popular exotic ornamental crops to reduce their invasive problems.
- Genetic improvement of bioenergy plants such as poplar for biofuel applications.
- Development and refinement of the 'gene-deletor' technology to address the environmental and food safety concerns around GM crops.

## Courses Taught

--**PLSC 243/343. Plant Biotechnology.** Second semester. Three credits. The course covers principles of recombinant DNA and plant gene transfer technologies, applications of plant biotechnology in agriculture, horticulture, forestry, human/animal health care and pharmaceutical industry, and social and environmental impacts of plant biotechnology.

--**PLSC 285/385. Plant Gene Transfer Techniques.** Second semester. Three credits. This laboratory course provides hand on experience of techniques for transgenic plant production, molecular verification and analysis of transgenic plants.

--**PLSC 246. Biotechnology - Science, Application, Impact, Perception.** First semester. Three credits. Co-taught with Dr. von Bodman. The course is designed for students with diverse departmental affiliations and covers scientific, legal and ethical aspects of biotechnology application in agriculture, health medicine, forensics and the environment. Designed for students with diverse departmental affiliations.

## Selected Publications

- Li Y. and D. C. Walton (1987): Xanthophylls and abscisic acid biosynthesis in water-stressed bean leaves. *Plant Physiology*, 85:910-915.
- Li Y. and D. C. Walton (1990): Violaxanthin is an abscisic acid precursor in dark-grown bean leaves. *Plant Physiology*, 92: 551-559.
- Li Y. and D. C. Walton (1990): Effects of cycloheximide on abscisic acid biosynthesis and stomatal aperture in bean leaves. *Plant Physiology*, 93:128-130.
- Hagen, G., G. Martin, Y. Li, and T. J. Guilfoyle (1991): Auxin-induced expression of soybean GH3 promoter in transgenic tobacco plants. *Plant Molecular Biology*, 17, 567-579.
- Li, Y., G. Hagen, and T. J. Guilfoyle (1991): An auxin-responsive promoter is differentially induced by auxin gradients during tropisms. *Plant Cell*, 3:1167-1175.
- Guilfoyle, T.J., G. Hagen, Y. Li, M.A. Gee, T. N. Ulmasov, and G. Martin (1992): Expression of auxin-responsive genes in soybean and transgenic tobacco. *Biochem. Soc. Trans.*, 20:97-101.
- Guilfoyle, T.J., G. Hagen, Y. Li, M.A. Gee, G. Martin, and T. N. Ulmasov (1992): Transcriptional regulation of auxin-responsive genes. *Current Plant Science and Biotechnology in Agriculture. Progress in Plant Growth Regulation* (CM Karssen, LC Van Loon, and D Vreugdenhil, eds) Kluwer Academic Publisher, Dordrecht. pp. 128-135.
- Li, Y., G. Hagen, and T. J. Guilfoyle (1992): Altered morphology in transgenic tobacco plants that overproduce cytokinins in specific tissues and organs. *Developmental Biology*, 153: 386-395.
- Guilfoyle T.J., G. Hagen, Y. Li, T. Ulmasov, Z. Liu, T. Strabala, M.A. Gee, and G. Martin (1993): Auxin-regulation transcription. *Austral J. Plant Physiology*, 20: 489-506 (10).
- Li, Y., T. J. Strabala, G. Hagen, and T. J. Guilfoyle (1994): The soybean SAUR open reading frame contains a cis-element responsible for cycloheximide-induced mRNA accumulation. *Plant Molecular Biology*, 24:715-723.
- Li, Y., X. Shi, T. J. Strabala, G. Hagen, and T. J. Guilfoyle (1994): Transgenic tobacco plants that overproduce cytokinin show increased tolerance to exogenous auxin and auxin transport inhibitors. *Plant Science*, 100: 9-14.
- Li, Y., Z.-B Liu, X. Shi, G. Hagen, and T. J. Guilfoyle (1994): An auxin-inducible element (AuxRE) in soybean SAUR promoters. *Plant Physiology*, 106: 37-43.
- Guilfoyle, T.J., G. Hagen, Y. Li, Y., Z. Liu, Z., Ulmasov, T. and Strabala, T. (1994): Auxin-regulated gene expression. *NATO ASI series. Cell Biology*, 81:173-181.
- Li, Y. (1995): Auxin-regulated gene expression and localized overproduction of phytohormones in transgenic plants. In *Proceedings of International Forestry Research Organization: Biotechnology in Forestry*. Eds S. Wang and X. Jiang. China Forestry Publishing House, Beijing. 29-40.

- Walton, D. C., and Y. Li (1995): Abscisic acid biosynthesis and metabolism. In *Plant Hormones Physiology, Biochemistry and Molecular Biology*, 2nd edition. (Davies P. J. ed). Kluwer Academic Publishers, Dordrecht, The Netherlands. 140-157.
- Strabala, T. J., Y. Wu, and Y. Li (1996): Combinatorial effects of cytokinin and auxin transport inhibitors: alteration of organogenesis and organ development from the shoot apical meristem. *Plant and Cell Physiology*. 37:1178-1182.
- Zhang, J-S., Y. Wu, Q. Li, and Y. Li (1998): Molecular cloning and expression pattern of a cDNA from tobacco, Nfbp6, a homologue of the petunia FBP6 floral identity gene. *Plant Sexual Reproduction*, 11:113-117.
- Li, Y. (1998): Molecular mechanisms of auxin and cytokinin action. In *Molecular Mechanisms of Plant Growth and Development*. Eds Z. Xu and C. Liu. Scientific Publishing House, Beijing. 141-151.
- Li, Y., Y. Wu, G. Hagen, and T. J. Guilfoyle (1999): Expression of the GH3/GUS gene as a molecular marker for auxin physiology. *Plant and Cell Physiology*, 40:675-682 (20).
- Liu, Q., S. Wang, Y. Li, and X. Jiang (2000): Purification of tonoplasts from *Populus euphratica* and its H<sup>+</sup>-pumping activity, *J. Biochem. Mol. Biol.* 16: 372-376.
- Wu, Y., Q. Li, J. Zhang, Z. Zheng, S. Xue and Y. Li (2000): Molecular characterization of two MADS box genes from tobacco plants, *Sexual Plant Reproduction*. 13: 163-169.
- Li Y., Y. Wu, H. R. McAvoy, and H. Duan (2001): *Transgenics in Crops, Biotechnology Annual Review 2000*, Ed. by M. R. EL-Gewely, Elsevier. 435-456.
- Liu QL., XJ Zhang, Y. Li, SS. Wang and XJ. Jiang (2001): Studies on the proton pumping activity of H<sup>+</sup>-ATPase in tonoplast vesicles of *Populus euphratica*. *Acta Botanic Sinica*. 43(5): 495-500
- Li Y., H. Duan, Y. H. Wu, R. J. McAvoy , Y. Pei, D. Zhao, J. Wurst, Q. Li and K. Luo (2003): *Transgenics of Plant Hormones and Their Potential Application in Horticultural Crops*. In: *Genetically Modified Crops, their Development, Uses, and Risks*. Ed. GH Liang and DZ Skinner. Haworth Press, New York. 101-112.
- McAvoy R., M. Khodakovskaya, Y. Li, Y. Wu, and S. Xue (2003): Phenotypic Characterization of *Petunia* Plants Expressing a Indoleacetic Acid (IAA)-lysine Synthetase Transgene Driven by a Shoot Specific Promoter. *Acta Horticulturae* 625: 379-385.
- Khodakovskaya M., M. McAvoy and Y. Li (2003): The effect of temperature and continuous dark conditions on chlorophyll stability in leaves of *Petunia* ‘Marco Polo Odyssey’ transformed with a cold-inducible *ipt* fusion gene. *HortScience* 38(5): 725-726.
- Fang W, Y. Zhang, X. Yang, H. Duan, Y. Li and Y. Pei (2004): *Agrobacterium tumefaciens*-mediated transformation of *Beauveria bassiana* using an herbicide resistance gene as a selection marker. *J. Invertebr Pathol.* 85:18-24.
- Xiong AS, Yao QH, Peng RH, Li X, Fan HQ, Cheng ZM, and Li Y. (2004): A simple, rapid, high-fidelity and cost-effective PCR-based two-step DNA synthesis method for long gene sequences. *Nucleic Acids Res.* 32(12):e98.1-10

- Peng R, Yao Q, Xiong A, Fan H, Li X, Peng Y, Cheng ZM, and Y. Li (2004): A new rice zinc-finger protein binds to the O2S box of the alpha-amylase gene promoter. *Eur J Biochem.* 271: 2949-2955 **(30)**.
- Li Y, Z. Cheng, W. Smith, D. Ellis, Y. Chen, X. Zheng, Y. Pei, K. Luo, H. Duan, D. Zhao, Q Yao (2004): Invasive ornamental plants: problems, challenges and molecular tools to neutralize their invasiveness. *Critical Reviews in Plant Sciences.* 23: 381-389
- Li X., R. H. Peng, H. Q. Fan, A.-S. Xiong, Q. H. Yao, Z. M. Cheng, and Y. Li (2005): Vitreoscilla hemoglobin overexpression increases submergence tolerance in cabbage. *Plant Cell Rep* 23:710–715
- Xiong A-S, Q.-H. Yao, R.-H. Peng, P.-L. Han, Z.-M. Cheng and Y. Li (2005): High level expression of a recombinant acid phytase gene in *Pichia pastoris*. *Journal of Applied Microbiology* 98, 418–428
- Labbé N., T. G. Rials, S. S. Kelley, Z. Cheng, J. Kim and Y. Li (2005): FT-IR Imaging and Pyrolysis-Molecular Beam Mass Spectrometry: New Tools to Investigate Wood Tissues. *Wood Science Technologies* 39: 61–77
- Khodakovskaya M, Y. Li, J. Li, R. Vankova, J. Malbeck and R. McAvoy (2005): Effects of cor15a-IPT gene expression on leaf senescence in transgenic *Petunia x hybrida* and *Dendranthema x grandiflorum*. *Journal of Experimental Botany.* 56: 1165-75.
- Luo K., X. Zheng, Y. Chen, D. Zhao, R McAvoy, Y. Pei and Y. Li (2005): The maize Knotted1 gene as a positive selectable marker gene is effective for *Agrobacterium*-mediated transformation in tobacco. *Plant Cell Reports* 21:1-7
- Khodakovskaya M, R. McAvoy, J. H. Peters, Wu H, Y. Li (2006): Enhanced cold tolerance in transgenic tobacco expressing a chloroplast omega-3 fatty acid desaturase gene under the control of a cold-inducible promoter. *Planta.* 223:1090-100.
- Peng RH, QH Yao, AS. Xiong, ZM. Cheng, Y. Li (2006): Codon-modifications and an endoplasmic reticulum-targeting sequence additively enhance expression of an *Aspergillus* phytase gene in transgenic canola. *Plant Cell Reports* 25:124-32.
- Chen Y., L. Lu, W. Deng, X. Yang, R. McAvoy, D. Zhao, Y. Pei, K. Luo, H. Duan, W. Smith, C. Thammina, X. Zheng, D. Ellis, Y. Li (2006): In vitro regeneration and *Agrobacterium*-mediated genetic transformation of *Euonymus alatus* *Plant Cell Reports.* 25(10):1043-51.
- Li Y., Z. Cheng, W. Smith, D. Ellis, Y. Chen, L. Lu, R. McAvoy, Y. Pei, W. Deng, C. Thammina, X. Zheng, H. Duan, K. Luo and D. Zhao (2006): Problems and Challenges of Invasive Ornamental Plants and Molecular Tools to Control Their Spread. *Journal of Crop Improvement* In press 17/18: 279-310. **(40)**
- Duan, H. Y. Li, Y. Pei, W. Deng, M. Luo, Y. Xiao, K. Luo, L. Lu, W. Smith, R. McAvoy, D. Zhao, X. Zheng and C. Thammina (2006): Auxin, Cytokinin and Abscisic Acid: Biosynthetic and Catabolic Genes and Their Potential Applications in Ornamental Crops. *Journal of Crop Improvement.* 17/18: 347-364.

- Xiong AS., QH. Yao, RH. Peng, X. Li, HQ. Fan, ZM. Cheng and Y. Li (2006): A Simple, rapid, PCR-based protocol for synthesis of long, accurate DNA sequences. *Nature Protocols* 1: 791 - 797
- Li Y., Z. Cheng, W. Smith, D. Ellis, Y. Chen, L. Lu, R. McAvoy, Y. Pei, W. Deng, C. Thammina, X. Zheng, H. Duan, K. Luo and D. Zhao (2006): Problems and challenges of invasive ornamental plants and molecular tools to control their spread. In: *Plant Biotechnology in Ornamental Horticulture*. Y. Li and Y. Pei (eds). Haworth Press, New York. 289-310.
- Duan, H. Y. Li, Y. Pei, W. Deng, M. Luo, Y. Xiao, K. Luo, L. Lu, W. Smith, R. McAvoy, D. Zhao, X. Zheng and C. Thammina (2006): Auxin, cytokinin and abscisic acid: biosynthetic and catabolic genes and their potential applications in ornamental crops. In: *Plant Biotechnology in Ornamental Horticulture*. Y. Li and Y. Pei (eds). Haworth Press, New York. 679-398
- Li Y., Z. Cheng, W. Smith, D. Ellis, Y. Chen, L. Lu, R. McAvoy, Y. Pei, W. Deng, C. Thammina, X. Zheng, H. Duan, K. Luo and D. Zhao (2006): Invasive ornamental plants: problems, challenges, and biotech approaches to neutralize their invasiveness. In: *Floriculture, Ornamental and Plant Biotechnology (1st Edition)* Ed. by J.A. Teixeira da Silva, Vol III. Global Science Books, England. 399-406.
- Wang J., X. Yang, Y. Li and P. Elliott (2006): Pollination competition effects on gene-flow estimation: using Regular vs. male sterile bait plants. *Agronomy Journal*. 98: 1060-1064.
- Deng W., K. Luo, D. Li, X. Zheng, C. Thammina, Y. Li and Y. Pei (2006): Overexpression of an *Arabidopsis* magnesium transporter, *AtMGT1*, in *Nicotiana benthamiana* confers tolerance to aluminum. *Journal of Experimental Botany*. 57: 4235-4243.
- Khodakovskaya M., D. Zhao, W. Smith, Y. Li and McAvoy (2006): Expression of *ipt* gene controlled by an ethylene and auxin responsive fragment of the *LEACO1* promoter increases flower number in transgenic *Nicotiana tabacum*. *Plant Cell Reports*. 25:1181-92.
- Luo K. W. Deng, Y. Xiao, X. Zheng, Y. Li and Y. Pei (2006): Leaf senescence is delayed in tobacco plants expressing the maize *knotted1* gene under the control of a wound-inducible promoter. *Plant Cell Reports*. 25:1246-54.
- Luo K., H. Duan, D. Zhao, X. Zheng, W. Deng, Y. Chen, C. N. Stewart Jr, R. McAvoy, Y. Wu, X. Jiang, A. He, Y. Pei and Y. Li (2007): ‘GM-gene-deletor’: fused loxP-FRT recognition sequences dramatically improve efficiency of FLP or Cre recombinase on transgene excision from pollen and seed of tobacco plants. *Plant Biotechnology Journal*. (5): 263-274.
- (This article reporting the gene-deletor technology has been widely reported (more than 1000 online news, website, newspapers and magazines) worldwide immediately after its publication. Some commented the “gene-deletor” technology as a breakthrough technology in the field of agricultural biotechnology. For more information, please visit: <http://gene-deletor.net/>).

Zheng X., Wei Deng W., Luo K., Duan H., Chen Y. McAvoy R., Song S., Pei Y. and Y. Li (2007): The 5'-CaMV 35S gene sequence alters expression levels and patterns of adjacent tissue- and organ-specific genes. Plant Cell Reports. On line early: <http://www.springerlink.com/content/c075106g07654vk0/fulltext.pdf>. .

This article has been highlighted and evaluated by Faculty of 1000. **Quote from Faculty Of 1000:** "Faculty Of 1000: Key articles selected and evaluated by a global faculty of top researchers and clinicians. Faculty of 1000 Biology and Medicine are authoritative online services in which almost 5,000 leading researchers and clinicians share their expert opinions by highlighting and evaluating the most important articles in biology and medicine."

Cheng, Z.-M., Y. Li, and Z. Zhang (2007): Plant growth regulators used in propagation. In Preece, J. C. Beyl and R. N. Trigiano (eds). Plant Propagation Concepts and Laboratory Exercises. CRC Press. In press.

Lu L., W. Smith, Y. Chen Y., C. Thammina C., H. Duan, S. von Bodman, R. McAvoy, D. Zhao and Y. Li: Micropropagation of *Buddleja davidii* using internodal stem sections. HortScience. In Press.

Luo M., Xiao Y., Li X., Lu X. Deng W., Li D., Hou L., Li Y. Y. Pei (2007): GhDET2, a steroid 5 $\alpha$ -reductase, plays an important role in cotton fiber cell initiation and elongation. The Plant Journal. In Press.

Chen Y., L. Lu, X. Yang, H. Duan, W. Deng, R. McAvoy, D. Zhao, W. Smith, C. Thammina, S. von Bodman and Y. Li (2007): Biotech approach to neutralize the invasiveness of burning bush (*Euonymus alatus*), a progress report on development of its genetic transformation system and functional analysis of sterile genes. Acta Horticulturae. Accepted.

Luo K., H. Duan, D. Zhao, X. Zheng, W. Deng, Y. Chen, R. McAvoy, X. Jiang, Y. Wu, Y. Pei and Y. Li: A highly efficient system to delete all functional transgenes from pollen of tobacco plants. Acta Horticulturae. Accepted.

### Book Published

- Y. Li and Y. Pei: [Plant Biotechnology in Ornamental Horticulture](http://www.haworthpress.com/store/product.asp?sku=5948) (<http://www.haworthpress.com/store/product.asp?sku=5948>). Haworth Press, New York, USA. Published in March 2007.

### Patents

- Li Y.: Transgenic seedless fruit and methods (US Patent No. 6,268,552).
- McAvoy R., M. Khodakovskaya, and Y. Li: Method and composition for increasing branching and flowering response in plants through controlled, endogenous cytokinin regulation, non-provisional patent filed, 2006 (Ref #: 63067US(30471)).
- McAvoy R., M. Khodakovskaya, and Y. Li: (2006) Method and composition for increasing plant survival & viability under cold storage, or dark and cold storage conditions. Non-provisional patent filed, 2006 (US60/837,585)

### **Invited Presentations (Since 2000)**

- Invited plenary symposium speaker: Plant Biotechnology and Its Impact on 21 Century, Second International High-Tech Trade Fair, Shenzhen, China. October 14, 2000.
- Invited symposium speaker: Gene-Transfer-Mediated Regulation of Plant Hormone Contents in Transgenic Plants, Nanjing Sino-America Agricultural Biotechnology Symposium 2000, Nanjing, China. October 11, 2000.
- Invited seminar speaker: Transgenic Approach to understand plant hormone action, The University of Hong Kong, Hong Kong. October 16 2000.
- Invited symposium speaker: Manipulation of endogenous plant hormone contents and its applications in crop improvement, American Society of Agronomy Annual Meeting's Sorghum symposium, Minneapolis, MN. November 9, 2000.
- Invited symposium speaker: Plant biotechnology and its applications in agricultural and biomedical industries. The 3<sup>rd</sup> International conference on High Tech, Guanzhou, China. December 28, 2000.
- Invited seminar speaker: Gene-Transfer-Mediated Regulation of Plant Hormone Contents in Transgenic Plants, Zhongshan University, Guangzhou, China. December 29, 2000.
- Invited seminar speaker: Gene-Transfer-Mediated Regulation of Plant Hormone Contents in Transgenic Plants, Sichuan University, Chendu, China. January 9, 2001.
- Invited seminar speaker: Transgenic approach to auxin action: from earth to space. Cornell University, Ithaca, NY. March 2, 2001.
- Invited symposium speaker: Manipulation of endogenous plant hormone contents and its applications in crop improvement, Beijing Forestry University, Beijing, China. July, 2001
- Invited seminar speaker: Transgenic Approach to understand plant hormone action, China Agricultural University, Beijing, China. August 18, 2001.
- Invited seminar speaker: Gene transfer-mediated regulation of plant hormone contents in and improvement of horticultural crops. UConn CANR Graduate Research Forum, Storrs, CT. April, 2002.
- Invited seminar speaker: Gene transfer techniques-mediated improvement of agricultural and horticultural crops, College of Life Sciences, Northwest Agricultural University, Yangling, P. R. China. July 22, 2002.
- Invited seminar speaker: Gene transfer techniques-mediated improvement of horticultural crops, Biotechnology Center, Southwest Agricultural University, Chongqing, P. R. China. July 26, 2002.
- Invited seminar speaker: 1) Plant biotechnology and agriculture; 2) Gene transfer techniques-mediated improvement of agricultural and horticultural crops, College of Life Sciences, Guizhou University, Guiyang, P. R. China. July 31, 2002.
- Invited seminar speaker: College of Science and Technology for Food and Nutrition, China Agricultural University, Beijing, P. R. China. August 7, 2002.

- Invited seminar speaker: Transgenic approaches to auxin action and genetic improvement of horticultural crops. Department of Plant Science, University of Tennessee. Knoxville, TN. November 21, 2002
- Invited seminar speaker: Transgenic approaches to improvement of horticultural crops. Department of Horticulture, Clemson University, Clemson, SC. March 14, 2003.
- Invited seminar speaker: “Biotech approach to neutralize invasive plants” New England Invasive Plant Summit, Framingham, MA. Sept. 19, 2003
- Invited speaker: Science Day, Connecticut Gardener and the Environment, Falls Village CT. March 13, 2004
- Invited workshop speaker: “Biotech approach to neutralize invasiveness of exotic ornamental plants.” 2004 Biotech Workshop, Annual Meeting of American Society of Horticulture Science, Austin, Texas. July 17-21.
- Invited workshop speaker: “Controlled removal of GM genes from pollen and seeds.” 2004 Biotech Workshop, Annual Meeting of American Society of Horticulture Science, Austin, TX. July 17 -21, 2004.
- Invited seminar speaker: “Biotech approaches to control undesirable spread of GM genes and invasive plants.” USDA Appalachian Fruit Research Station in Kearneysville, WV. September 21, 2004.
- Invited seminar speaker: “Biotech approaches to improve biomass production of poplar and to produce transgene-free pollen and seeds from transgenic plants: Department of Plant Science, University of Tennessee, Knoxville, TN. April 21, 2006
- Invited seminar speaker: “Biotech approaches to improve biomass production of poplar and to produce transgene free pollen and seed from transgenic plants: The Department of Plant Science, Department of Energy’s Oak Ridge National Laboratory, TN. April 24, 2006.
- Invited symposium presentation: “Biotech approaches to improve biomass production of poplar”: The 4<sup>th</sup> International Conference on Poplar and Willow, Nanjing, China. June 3-7, 2006.
- Invited seminar speaker: “Genetic improvement of biomass production of poplar.” Southwest University, Chongqing, China. June 12, 2006.
- Invited seminar speaker: “Biotech approaches to improve biomass production of poplar.” Guizhou University, Guiyang, China. June 17, 2006.
- Invited keynote symposium speaker: “GM gene deleter system for production of GM gene free pollen and seed from GM plants.” Symposium 10: Plant Biotechnology: From Bench to Commercialization. 27th International Horticultural Congress & International Horticultural Exhibition. Seoul, Korea. August 13-19, 2006.
- Invited keynote symposium speaker: “Biotech approach to neutralize invasiveness of exotic plants.” Symposium 2: Asian Plants with Unique Horticultural Potential. 27th International Horticultural Congress & International Horticultural Exhibition, Seoul, Korea. August 13-19, 2006.
- Invited symposium speaker for biofuel Symposium: Genetic improvement of bioenergy crops. Storrs, CT. January 8, 2007.

- Invited symposium presentation: International Conference “Plant Transformation Technologies”:  
“GM gene deleter” to delete GM genes from pollen and seed for vegetatively propagated plants. Vienna, Austria. February 4-7, 2007.
- Invited seminar speaker: “Genetic improvement of bioenergy crops”. Department of Plant, Soil and Insect Sciences, University of Massachusetts, Amherst, MA. April 17, 2007
- Invited seminar speaker: “Gene-deleter technology and its potential applications.” Monsanto, Mystic, CT. May 2, 2007.
- Invited symposium speaker: “Biotech approach to neutralize invasiveness of exotic ornamentals”.  
Symposium: Invasion Biology and Management under Changing Climates, EcoSummit-2007, Beijing, China. May 22-27, 2007.
- Invited feature speaker: “Genetic improvement of biomass production and development of a 'GM-gene-deleter' technology for energy crops.” The 71st Annual Meeting Northeast Section of American Society of Plant Biologists. Syracuse, NY. June 1, 2007.