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EDUCATION:

2008.3- Present: Associate Professor (Institute of Plant Physiology and Ecology, SIBS, CAS)

2007.5-2008.3: Assistant Researcher (Institute of Plant Physiology and Ecology, SIBS, CAS)

2005.4-2007.5: Post-doctoral, Development Biology (Molecular mechanism controlling zygomorphic flower developmental in legume plants), School of Life Sciences and Biotechnology, Shanghai Jiaotong University

Co- Supervisor: Prof. Luo Da

2002.12-2005.5: Post-doctoral, Genetics (Molecular mechanism controlling morphological developmental in higher plants), Institute of Plant Physiology and Ecology, SIBS, CAS

Co- Supervisor: Prof. Luo Da

1999.9-2002.11: Doctor, Development Biology, Wuhan University

Supervisor: Prof. Yang Hong-Yuan

1996.9-199.6: Master, Plant Physiology, Nanjing Agricultural University

Supervisor: Prof. Zhou Xie

RESEARCH EXPERIENCE

1. Molecular mechanism of *TCP4* controlling flowering time in *Arabidopsis thaliana* (Undertaking)
2. Functional analysis of *COCHLEATA* and its homologues in legume plants controlling nodule development (Undertaking)
3. Petal development in *Lotus japonicus* (Finished in 2011)
4. *APETALA2*-like transcription factor genes, *KEEL LOSS1 (KEL1)* and *RED BULL1 (REB1)*, control floral zygomorphy in legume plants by regulating floral organ number and identity (Finished in 2011)
5. Multiple pathways are integrated to determine compound leaf development in *Lotus japonicus* (Finished in 2011)
6. *SUI/AtSUI* genes encode phosphatidylserine synthases and control shoot development in both rice and *Arabidopsis* (Finished in 2010)
7. Genetic control of floral zygomorphy in pea (Finished in 2008)
8. Genetic control of floral zygomorphy in *Lotus japonicus* (Finished in 2006)
9. *Mtcyc2* (one important TCP ortholog of *Medicago truncatula*) cloning and its expression pattern during flower development of *Medicago truncatula* (Finished in 2006)
10. Differential distribution of *LjCYC1* and *LjCYC2* in *35S::LjCYC:GFP* and *35S::LjCYC2:GFP* transgenic *Lotus japonicus* and early floral development of transgenic plants (Finished in 2004)
11. Genetic research of *mok*, *nao 1* and *sho 1* in *Lotus japonicus* (Finished in 2003)
12. Mutants screening and collecting of *Lotus japonicus* and *Oryza sativa* (Finished in 2003)
13. Ultracytochemical localization of calcium in rice central cell before and after fertilization (Finished in 2002)
14. Fluctuation and distribution of plant hormones before and after fertilization of rice and wheat (Finished in 2002)
15. Distribution of calmodulin before and after fertilization of rice and wheat (Finished in 2001)
16. Effects of PDJ on the cold resistance of rice (Finished in 1999)
17. Roles of salicylic acid during bulb swelling of garlic and wheat embryogenesis (Finished in 1999 and 2002 respectively)

18. Effects of epibrassinolide and salicylic acid on wheat anther culture (Finished in 1998)

EXPERIMENTAL SKILLS:

Molecular biology: Map-based gene cloning, Gene cloning, Plasmid construction, RT-PCR, plant DNA/RNA preparation, Southern/Northern blotting

Biochemistry: Extraction and Purification of Phosphatidylglycerol, Thin Layer Chromatograph, Fatty Acids Analysis in Phosphatidylglycerol, Extraction and Purification of Protein/Enzyme, Enzyme Activity Analysis, Polyclonal Antisera Preparation, Extraction and Purification of Plant Hormones, Enzyme Linked Immuno-sorbent Assay of Plant Hormones,

Cytology/Histology: RNA *in situ* Hybridization, Scanning Electron/Fluorescence Microscopy, Immuno-electron microscopy, Immuno-fluorescence Microscopy, Confocal Laser Scanning Microscopy

Bioinformatics: PC proficiency with DNA sequence analysis support software (e.g. Vector NTI suite, Bioedit), Data analysis (e.g. GenBank), Primer design (e.g. Primer Premier)

AWARDS

Excellent Faculty of Institute of Plant Physiology and Ecology (2009)

Excellent Ph.D students of Wuhan University (2002)

People Scholarship, The second rate (2002)

Excellent Graduates students of Nanjing Agricultural University (1999)

Excellent Students of Nanjing Agricultural University (1995)

PUBLICATION

1. **Yang J**, Weng L, Liu CW, Ambrose M, Sato S, Tabata S, Liu ZC, Luo D. *APETALA2*-like transcription factor genes, *KEEL LOSS1 (KEL1)* and *RED BULL1 (REB1)*, control floral zygomorphy in legume plants by regulating floral organ number and identity (in review)
2. Zhuang L, Ambrose M, Rameau C, Weng L, **Yang J**, Hu XH, Luo Da, Li X. (2012) *LATHYROIDES*, encoding a WUSCHEL-related homeobox1 transcriptional factor, controls organ lateral growth, and regulates tendril and dorsal petal identities in garden pea (*Pisum sativum* L.)

Mol. Plant (accepted)

3. Chai YQ, Luo D, **Yang J.** (2012) Cytochrome P450 *CYP78A5/KLUH* participates in regulating phase transition of leaf development in *Arabidopsis thaliana*. **Plant Physiol. J.** 48 (6): 605-610 (cover story)
4. Liu CW, Yin HF, Gao P, Hu XH, **Yang J,** Liu ZC, Fu XD, Luo D. (2012) *PHOSPHATIDYLSERINE SYNTHASE1* is required for inflorescence meristem and organ development in *Arabidopsis*. **J. Integr. Plant Biol.** (accepted)
5. Xu SL, Luo YH, Cai ZG, Cao XL, Hu XH, **Yang J,** Luo D. (2012) Functional diversity of *CYCLOIDEA*-like TCP genes in the control of zygomorphic flower development in *Lotus japonicus*. **J. Integr. Plant Biol.** (accepted)
6. Weng L, Tian Z, Feng X, Li X, Xu S, Hu X, Luo D, **Yang J.** (2011) Petal development in *Lotus japonicus*. **J. Integr. Plant Biol.** 53 (10), 770–782. (cover story)
7. Li X, Zhuang L, Rameau C, Hu X, **Yang J,** Luo Da. (2010) Genetic analysis of *ele* mutants and comparative mapping of *ele1* locus in the control of organ internal asymmetry in garden pea. **J. Integr. Plant Biol.** 52(6): 528–535
8. Li X, He S, Zhuang L, Ambrose M, Rameau C, Hu X, **Yang J,** Luo Da.. (2010) Genetic analysis and comparative mapping of *BIO1* and *ELE2* loci in *Lotus japonicus* and pea. **Genomics and Applied Biology.** 29(1): 3-9
9. Yan J, Cai XF, Luo JH, Sato S, Jiang QY, **Yang J,** Cao XL, Hu XH, Tabata S, Gresshoff PM, Luo D. 2010 The *REDUCED LEAFLET* genes encode key components of the trans-acting small interfering rna pathway and regulate compound leaf and flower development in *Lotus japonicus*. **Plant Physiol.** 152: 797-807
10. Wang LP, Yin HF, Qian Q, **Yang J,** Huang CF, Hu XH, Luo D. 2009 *NECK LEAF 1*, a GATA type transcription factor, modulates the organogenesis by regulating the expression of multiple regulatory genes during reproductive development in rice. **Cell Res.** 19: 598-611
11. Jin J, Huang W, Gao JP, **Yang J,** Shi M, Zhu MZ, Luo D, Lin HX. 2008 Genetic control of rice plant architecture under domestication. **Nat Genet.** 40: 1365-1369.
12. Wang Z, Luo Y, Li X, Wang L, Xu S, **Yang J,** Weng L, Sato S, Tabata S, Ambrose M, Rameau C, Feng X, Hu X, Luo D. 2008 Genetic control of floral zygomorphy in pea (*Pisum sativum* L.). **Proc Natl Acad Sci USA** 105: 10414-10419

13. Feng XZ, Zhao Z, Tian ZX, Xu SL, Luo YH, Cai ZG, Wang YM, **Yang J**, Wang Z, Weng L, Chen JH, Zheng LY, Guo XZ, Luo JH, Sato S, Tabata S, Ma W, Cao XL, Hu XH, Sun CR, Luo D. 2006 Control of petal shape and floral zygomorphy in *Lotus japonicus*. **Proc. Natl. Acad. Sci. USA** 103: 4970-4975
14. Chu H, Qian Q, Liang W, Yin C, Tan H, Yao X, Yuan Z, **Yang J**, Huang H, Luo D, Ma H, Zhang D. 2006 The *FLORAL ORGAN NUMBER4* gene encoding a putative ortholog of *Arabidopsis CLAVATA3* regulates apical meristem size in rice. **Plant Physiology** 142: 1039-1052
15. Luo JH, Yan J, Weng L, **Yang J**, Zhao Z, Chen JH, Hu XH, Luo D. 2005 Different expression patterns of duplicated *PHANTASTICA-like* genes in *Lotus japonicus* suggest their divergent functions during compound leaf development. **Cell Res.** 15(8):665-677
16. Dong ZC, Zhao Z, Liu CW, Luo JH, **Yang J**, Huang WH, Hu XH, Wang TL, Luo D. 2005 Floral patterning in *Lotus japonicus*. **Plant Physiology** 137: 1272-1282
17. Qin Y, **Yang J**, Zhao J. 2005 Calcium changes and the response to methyl jasmonate in rice lodicules during anthesis. **Protoplasma** 225: 103-112
18. **Yang J**, Zhao J, Zhou X, Yang HY. 2003 Fluctuation of endogenous hormones during rice embryogenesis and early stage of germination: assayed with isolated embryos. **Acta Bot Sin**, 45: 705—711
19. **Yang Jun**, Zhao Jie, Liang Shi-Ping, Yang Hong-Yuan. 2002 Ultracytochemical localization of calcium in rice central cell before and after fertilization. **Acta Biologica Cracoviensia Series Botanica**, 44:223-230
20. **Yang Jun**, Zhao Jie, Liang Shi-Ping, Yang Hong-Yuan. 2002 Changes calmodulin distribution in the embryo sac of *Oryza sativa* L. before and after fertilization: An immunogold electron microscope study. **Acta Bot Sin**, 44: 264-272
21. **Yang Jun**, Zhao jie, Yang Hong-Yuan. 2002 Immunocytochemical localization of plant hormone. **Chinese Journal of Cell Biology**, 24 (5): 257-262 (in Chinese)
22. Chen Jin-Gui, **Yang Jun**, Zhou Xie. 2001 Regulation of plant hormone on the layout of microtubule and cellulose microfibril. **Chinese Bulletin of Life Sciences**, 13 (3): 139-141 (in Chinese)
23. Wang Wei, Yang Xing-Hong, Zou Qi, Zhou Xie, **Yang Jun**. 2001 The change of turgor pressure and the content of IAA and ABA in wheat during germination under water stress. **Plant**

Physiology Communications, 37 (3): 211-214 (in Chinese)

24. Li Chun-Xiang, **Yang Jun**, Wang Shu-Cai, Xia Kai, Li Shi-Jun, Zhou Xie. 2000 The role of salicylic acid in the swelling of garlic (*Allium sativum* L.) bulb. ***Acta Horticulturae Sinica***, 27 (3): 220-222 (in Chinese)
25. **Yang Jun**, Chen Da-Zhou, Xia Kai, Hu Zi-Ling, Zhou Xie. 1999 Effects of n-propyl dihydrojasmonate and Dongxiang wild rice (male parent) on the chilling resistance of their hybrid (F1). ***Journal of Nanjing Normal University (Natural Science)*** , 22(3): 133-138 (in Chinese)
26. **Yang Jun**, Qin Gen-Ji, Yang Qin, Chen Pei-Du, Zhou Xie. 1999 Effects of epibrassinolide and salicylic acid on wheat anther culture. ***Plant Physiology Communications***, 35 (4): 288-289 (in Chinese)