

## Chunli CHEN

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### EDUCATION

Ph.D. in Pomology

Sept. 1999 - Aug. 2004

Huazhong Agricultural University, Wuhan, China

**Dissertation:** Molecular Cytogenetics analysis in citrus

B.S. in Pomology

Sept. 1993-Jul. 1997

Huazhong Agricultural University, Wuhan, China

### CURRENT POSITION

Professor, College of Life Science and Technology, Huazhong Agricultural University, Wuhan, China

Dec. 2020-

### RESEARCH INTERESTS

Research fields: Plant developmental biology; Plant molecular cytogenetics

Research topics: Plant root; Plant Stem cell; Plant chromatin and chromosome; Plant meiosis

### PUBLICATIONS (#co-first author \*corresponding author)

- 1) Nan Gu<sup>#</sup>, Yosuke Tamada<sup>#</sup>, Akihiro Imai, Gergo Palfalvi, Yukiko Kabeya, Shuji Shigenobu, Masaki Ishikawa, Karel J. Angelis, **Chunli Chen**<sup>\*</sup>, and Mitsuyasu Hasebe<sup>\*</sup>. DNA damage triggers reprogramming of differentiated cells into stem cells in *Physcomitrella*. **Nature Plants**. 2020, Sep;6(9):1098-1105. doi: 10.1038/s41477-020-0745-9. (IF 13.265)
- 2) Likai Wang, Juzhi Sun, Luming Lin, Yajuan Fu, Harri Alenius, Keith Lindsey, **Chunli Chen**<sup>\*</sup>. Silver nanoparticles regulate Arabidopsis root growth by concentration-dependent modification of reactive oxygen species accumulation and cell division. **Ecotoxicology and Environmental Safety**. 2020;190:110072. doi:10.1016/j.ecoenv.2019.110072
- 3) Luke Miao, **Chunli Chen**, Li Yao, Jaelyn Tran, Hua Zhang. Genome-wide identification, characterization, interaction network and expression profile of GAPDH gene family in sweet orange (*Citrus sinensis*). **PeerJ**. 2019 Nov 14;7:e7934. doi: 10.7717/peerj.7934.
- 4) Changxiu Yu, Xiuxin Deng, **Chunli Chen**<sup>\*</sup>. Chromosomal characterization of a potential model mini-Citrus (*Fortunella hindsii*). **Tree Genetics & Genomes** (2019) 15: 73. <https://doi.org/10.1007/s11295-019-1379-9>
- 5) Xiaosong Ma, Fangjun Feng, Yu Zhang, Ibrahim Eid Elesawi, Kai Xu, Tianfei Li, Hanwei Mei, Hongyan Liu, Ningning Gao, **Chunli Chen**, Lijun Luo, Shunwu Yu. A novel rice grain size gene OsSNB was identified by genome-wide association study in natural population. **PLoS Genet**. 2019 May 31;15(5):e1008191. doi: 10.1371
- 6) Hua Zhang, Limin Mi, Long Xu, Changxiu Yu, Chen Li, **Chunli Chen**<sup>\*</sup>. Genome-wide identification, characterization, interaction network and expression profile of GRAS gene family in sweet orange (*Citrus sinensis*). **Scientific Reports**,2019. Feb 15;9(1):2156. doi: 10.1038/s41598-018-38185-z. (IF 4.122)
- 7) Shunwu Yu, Aona Huang, Jia Li, Lin Gao, Yanni Feng, Erinn Pemberton, **Chunli Chen**<sup>\*</sup>. OsNAC45 plays complex roles by mediating POD activity and the expression of development-related genes under various abiotic stresses in Rice root. **Plant Growth Regulation**. 84(3): 519-531 (2018) (IF 2.646)

- 8) Junli Liu<sup>#</sup>, Simon Moore<sup>#</sup>, **Chunli Chen\***, Keith Lindsey\*. Crosstalk complexities between auxin, cytokinin and ethylene in Arabidopsis root development: from experiments to systems modelling, and back again. **Molecular Plant**, 10(12):1480-1496 (2017) (IF 12.084)
- 9) Yajuan Fu, Caiming Guo, Hao Wu, **Chunli Chen\***. Arginine decarboxylase ADC2 enhances salt tolerance through increasing ROS scavenging enzyme activity in *Arabidopsis thaliana*. **Plant Growth Regulation**. 83: 253 -257 (2017) (IF 2.646)
- 10) Juzhi Sun<sup>#</sup>, Likai Wang<sup>#</sup>, Shuang Li, Liyan Yin, Jin Huang and **Chunli Chen\***. Toxicity of silver nanoparticles to Arabidopsis: inhibition of root gravitropism by interfering with auxin pathway. **Environmental Toxicology and Chemistry**. 36(10): 2773–2780 (2017) (IF 3.179)
- 11) Sarfraz Shafiq<sup>#</sup>, **Chunli Chen\*\***, Jing Yang, Lingling Cheng, Fei Ma, Emilie Widemann, Qianwen Sun\*. DNA Topoisomerase 1 prevents R-loop accumulation to modulate auxin-regulated root development in rice. **Molecular Plant**, 10(6):821-833 (2017) (IF 12.084)
- 12) Xia Wang, Yuantao Xu, Siqi Zhang, Li Cao, Yue Huang, Junfeng Cheng, Guizhi Wu, Shilin Tian, **Chunli Chen**, Yan Liu, Huiwen Yu, Xiaoming Yang, Hong Lan, Nan Wang, Lun Wang, Jidi Xu, Xiaolin Jiang, Zongzhou Xie, Meilian Tan, Robert M Larkin, Ling-Ling Chen, Bin-Guang Ma, Yijun Ruan, Xiuxin Deng and Qiang Xu\*. Genomic analyses of primitive, wild and cultivated citrus provide insights into asexual reproduction. **Nature Genetics**. 49(5):765-772 (2017) (IF 27.959)
- 13) Hong Lan, **Chunli Chen\***, Yin Miao, Changxiu Yu, Wenwu Guo, Qiang Xu, Xiuxin Deng\*. Fragile sites of ‘Valencia’ Sweet Orange (*Citrus sinensis*) chromosomes are related with active 45s rDNA. **PLoS ONE**. 11(3): e0151512 (2016) (IF 3.234)
- 14) Shu-ming Wang, Hong Lan, Hong-bo Cao, Qiang Xu, **Chun-li Chen**, Xiu-xin Deng, Wen-wu Guo\*. Recovery and characterization of homozygous lines from two sweet orange cultivars via anther culture. **Plant Cell, Tissue and Organ Culture**, 123 (3) :633-644 (2015) (IF 3.090)
- 15) Hong Long\*, **Chunli Chen**, Bing Wang, Yanni Feng. rDNA Genetic Imbalance and Nucleolar Chromatin Restructuring Is Induced by Distant Hybridization between *Raphanus sativus* and *Brassica alboglabra*. **PLoS ONE**, 10(2): e0117198 (2015) (IF 3.234)
- 16) Jintao Li, Yu Zhao, Huangwei Chu, Likai Wang, Yanru Fu, Ping Liu, Narayana Upadhyaya, **Chunli Chen**, Tongmin Mou, Yuqi Feng, Prakash Kumar, Jian Xu. SHOEBOX modulates root meristem size in rice through dose-dependent effects of Gibberellins on cell elongation and proliferation. **PLoS Genetics**, 08, 11:e1005464 (2015)
- 17) Fuxi Bai, **Chunli Chen**, Jianyong An, Shunyuan Xiao, Xiuxin Deng, Zhiyong Pan. Transcriptome response to phosphate deficiency in *Poncirus trifoliata* (L.) Raf. **Acta Physiologiae Plantarum**, 36 (12) :3207-3215 (2014)
- 18) Likai Wang, Huangwei Chu, Zhiyong Li, Juan Wang, Jintao Li, Yang Qiao, Yanru Fu, Tongmin Mou, **Chunli Chen**, Jian Xu. Origin and development of the root cap in rice. **Plant Physiology**, 166(2): 603-613 (2014)
- 19) Xuan Xiao, Fei Ma, **Chunli Chen\***, Wenwu Guo\*. High efficient transformation of auxin reporter gene into trifoliolate orange via *Agrobacterium rhizogenes*-mediated co-transformation. **Plant Cell Tiss Organ Cult**, 118(1):137-146 (2014) (SCI, IF 3.090)
- 20) Qiang Xu, Lingling Chen, Xiaohan Ruan, Dijun Chen, Andan Zhu, **Chunli Chen**, Bertrand Denis, Wen-Biao Jiao, Bao-Hai Hao, Matthew P Lyon, Jiongjiong Chen, Song Gao, Feng Xing, Hong Lan, Ji-Wei Chang, Xianhong Ge, Yang Lei, Qun Hu, Yin Miao, Lun Wang, Shixin Xiao, Manosh Kumar Biswas, Wenfang Zeng, Fei Guo, Hongbo Cao, Xiaoming Yang, Xi-Wen Xu, Yun-Jiang Cheng, Juan Xu, Ji-Hong Liu, Oscar Junhong Luo, Zhonghui Tang, Wen-Wu Guo, Hanhui Kuang, Hong-Yu Zhang, Mikeal L Roose, Niranjan Nagarajan, Xiuxin Deng, Yijun Ruan. The draft genome of sweet orange (*Citrus sinensis*). **Nature Genetics**, 45(1), 59–66 (2013)

- 21) Xiu Cao, **Chunli Chen**, Dejian Zhang, Bo Shu, Jie Xiao, Renxue Xia. Influence of nutrient deficiency on root architecture and root hair morphology of trifoliolate orange (*Poncirus trifoliata* L. Raf.) seedlings under sand culture. **Scientia Horticulturae**, 162(23): 100-105 (2013)
- 22) Dejian Zhang, Renxue Xia, Bo Shu, Xiu Cao, **Chunli Chen**. Root hair development of *Poncirus trifoliata* grown in different growth cultures and treated with 3-indolebutyric acid and ethephon. **Scientia Horticulturae**, 160(27): 389-397 (2013)
- 23) Yan X, Zhang L, Chen B, Xiong Z, **Chen C**, Wang L, Yu J, Lu C, Wei W. Functional identification and characterization of the Brassica napus transcription factor gene BnAP2, the ortholog of Arabidopsis thaliana APETALA2. **PLoS One**. 2012;7(3):e33890.
- 24) Wang J, Sun PP, **Chen CL**, Wang Y, Fu XZ, Liu JH. An arginine decarboxylase gene PtADC from *Poncirus trifoliata* confers abiotic stress tolerance and promotes primary root growth in Arabidopsis. **J Exp Bot**. 2011 May;62(8):2899-914.
- 25) **Chen Chunli**, Guo WW, Yi Hualin, Deng XX. Cytogenetic analysis of two interspecific Citrus allotetraploid somatic hybrids and their diploid fusion parents. *Plant Breeding*, 2004, 123: 332-337
- 26) Fu Chunhua<sup>#</sup>, **Chen Chunli**<sup>#</sup>, Guo Wenwu, Deng Xiuxin. GISH, AFLP and PCR-RFLP analysis of Goutou sour orange + *Poncirus trifoliata* intergeneric somatic hybrids. **Plant Cell Rep** 2004, 23: 391-396
- 27) Shao Jianzhu, **Chen Chunli**, Deng XX. In vitro induction of tetraploid in pomegranate (*Punica granatum*). **Plant Cell, Tissue and Organ Culture**, 2003, 75: 241-246
- 28) Guo WW, Cheng YJ, **Chen CL**, Fu CH, Deng XX (2004) Molecular characterization of several intergeneric somatic hybrids between citrus and its related genera. **Acta Horticulturae**, 632: 259-264