

# Jiang Jiafu



## Contact Information:

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## Academic/Professional Qualifications:

1995-1999 Bachelor, Nanjing Agricultural College

1999-2002 Master, Nanjing Agricultural College

2002-2006 PhD, Institute of Botany, Chinese Academy of Sciences

2006-2007 Postdoctoral Fellow, National University of Singapore

2007-2010 Postdoctoral Fellow, Texas Tech University

2011.3- Professor, College of Horticulture, Nanjing Agricultural College

## Research Interests:

Flowering time regulation in Chrysanthemum (*Chrysanthemum morifolium*). Chrysanthemum as one of the four most popular cut flower over the world and one of the ten most famous flower in china, provides very high ornamental and economic value, which possess the important status on flower industry.

## Selected Publications

- 1) Peilei Cheng, Yanan Liu, Yiman Yang, Hong Chen, Hua Cheng, Qian Hu, Zixin Zhang, Jiaojiao Gao, Lian Ding, Weimin Fang, Sumei Chen, Fadi Chen, and **Jiafu Jiang\***. CmBES1 is a regulator of boundary formation in chrysanthemum ray florets. **Horticulture Research**. 2020, 7:129
- 2) Lu Zhu, Yunxiao Guan, Yanan Liu, Zhaohe Zhang, Muhammad Abuzar Jaffar, Aiping Song, Sumei Chen, **Jiafu Jiang\*** and Fadi Chen\*. Regulation of flowering time in chrysanthemum by the R2R3 MYB transcription factor CmMYB2 is associated with

changes in gibberellin metabolism. **Horticulture Research**. 2020, 7: 96.  
(\*Co-corresponding author)

- 3) Lijun Wang, Jing Sun, Liping Ren, Min Zhou, Xiaoying Han, Lian Ding, Fei Zhang, Zhiyong Guan, Weimin Fang, Sumei Chen, Fadi Chen, **Jiafu Jiang\***. CmBBX8 accelerating flowering by targeting *CmFTL1* directly in summer chrysanthemum. **Plant Biotechnology Journal**. 2020,18: 1562–1572.
- 4) Hong Chen, Huang Fei, Yanan Liu, Peilei Cheng, Zhiyong Guan, Weimin Fang, Sumei Chen, Fadi Chen, Jiafu Jiang\*. Constitutive expression of the chrysanthemum CmBBX29 delays flowering time in transgenic Arabidopsis. Published on the web 20 September 2019. **Canadian Journal of Plant Science**, <https://doi.org/10.1139/CJPS-2018-0154>
- 5) Lijun Wang, Gao J, Zhang Z, Liu W, Cheng P, Mu W, Su T, Chen S, Chen F, **Jiafu Jiang\***. Over-expression of CmSOS1 confers waterlogging tolerance in Chrysanthemum. **J Integr Plant Biol**. 62(8): 1059-1064.
- 6) Qi Ping, Peilei Cheng, Fei Huang, Liping Ren, Hua Cheng, Zhiyong Guan, Weimin Fang, Sumei Chen, Fadi Chen, **Jiafu Jiang\***. The heterologous expression in Arabidopsis thaliana of a chrysanthemum gene encoding the BBX family transcription factor CmBBX13 delays flowering. **Plant Physiol Biochem**. 2019 144: 480-487.
- 7) Zixin Zhang, Qian Hu, Yanan Liu, Peilei Cheng, Hua Cheng, Weixin Liu, Xiaojuan Xing, Zhiyong Guan, Weimin Fang, Sumei Chen, **Jiafu Jiang\***, Fadi Chen\*. Strigolactone represses the synthesis of melatonin, thereby inducing floral transition in *Arabidopsis thaliana* in an FLC-dependent manner. **Journal of Pineal Research** 2019; 00: e12582. (\*Co-corresponding author)
- 8) Zixin Zhang, Qian Hu, Hua Cheng, Peilei Cheng, Yanan Liu, Weixin Liu, Xiaojuan Xing, Sumei Chen, Fadi Chen, **Jiafu Jiang\***. A single residue change in the product of the chrysanthemum gene TPL1-2 leads to a failure in its repression of flowering. **Plant Science** (2019) 285: 165–174
- 9) Yanan Liu, Hong Chen, Qi Ping, Zixin Zhang, Zhiyong Guan, Weimin Fang, Sumei Chen, Fadi Chen, **Jiafu Jiang\***, Fei Zhang\*. The heterologous expression of CmBBX22 delays leaf senescence and improves drought tolerance in Arabidopsis. **Plant Cell Reports** (2019) 38:15-24 (\*Co-corresponding author)
- 10) Jing Sun, Peipei Cao, Lijun Wang, Sumei Chen, Fadi Chen, **Jiafu Jiang\***. The loss of a single residue from CmFTL3 leads to the failure of florigen to flower. **Plant Science** 276 (2018) 99-104
- 11) Qi Yuyin, Liu Yanan, Zhang Zixin, Gao Jiaojiao, Guan Zhiyong, Fang Weimin, Chen Sumei, Chen Fadi, **Jiang Jiafu\***. The over-expression of a chrysanthemum gene encoding an RNA polymerase II CTD phosphatase-like 1 enzyme enhances tolerance to heat stress. **Horticulture Research** (2018) 5:37.
- 12) Peilei Cheng, Bin Dong, Heng Wang, Peipei Cao, Tao Liu, Yanan Liu, Jiaojiao Gao, Yuan Liao, Weimin Fang, Sumei Chen, Fadi Chen, **Jiafu Jiang\***. A Transcriptomic

Analysis Targeting Genes Involved in the Floral Transition of Winter-Flowering Chrysanthemum. **J Plant Growth Regul.** (2018) 37:220-232

- 13) Peilei Cheng, Jiaojiao Gao, Yitong Feng, Zixin Zhang, Yanan Liu, Weimin Fang, Sumei Chen, Fadi Chen, **Jiafu Jiang\***. The chrysanthemum leaf and root transcript profiling in response to salinity stress. **Gene.** (2018) 674:161-169
- 14) Jing Sun, Heng Wang, Liping Ren, Sumei Chen, Fadi Chen and **Jiafu Jiang\***. CmFTL2 is involved in the photoperiod- and sucrose-mediated control of flowering time in chrysanthemum. **Horticulture Research** (2017) 4, 17001
- 15) Dong B, Wang H, Liu T, Cheng P, Chen Y, Chen S, Guan Z, Fang W, **Jiafu Jiang\***, Chen F\*. Whole genome duplication enhances the photosynthetic capacity of Chrysanthemum nankingense. **Mol Genet Genomics.** 2017 Dec; 292(6):1247-1256. (\*Co-corresponding author)
- 16) Dong B, Deng Y, Wang H, Gao R, Stephen GK, Chen S, **Jiafu Jiang\***, Chen F\*. Gibberellic Acid Signaling Is Required to Induce Flowering of Chrysanthemums Grown under Both Short and Long Days. **Int J Mol Sci.** 2017 Jun 12;18(6): E1259(\*Co-corresponding author)
- 17) Mao Yachao, Sun Jing, Cao Peipei , Zhang Rong , Fu Qike, Chen Sumei, Chen Fadi, **Jiang Jiafu\***. Functional analysis of alternative splicing of the FLOWERING LOCUS T orthologous gene in Chrysanthemum morifolium. **Horticulture Research.** 2016, 3: 16058.
- 18) Liping Ren, Tao Liu, Yue Cheng, Jing Sun, Jiaojiao Gao, Bin Dong, Sumei Chen, Fadi Chen and **Jiafu Jiang\***. Transcriptomic analysis of differentially expressed genes in the floral transition of the summer flowering chrysanthemum. **BMC Genomics** (2016) 17:673
- 19) Jiaojiao Gao, Jing Sun, Peipei Cao, Liping Ren, Chen Liu, Sumei Chen, Fadi Chen, and **Jiang Jiafu\***. Variation in tissue Na<sup>+</sup> content and the activity of SOS1 genes among two species and two related genera of Chrysanthemum. **BMC Plant Biol.** 2016; 16: 98
- 20) Bin Dong, Haibin Wang, Aiping Song, Tao Liu, Yun Chen, Weimin Fang, Sumei Chen, Fadi Chen, Zhiyong Guan\* and **Jiafu Jiang\***. miRNAs Are Involved in Determining the Improved Vigor of Autotetraploid Chrysanthemum nankingense. **Frontiers in Plant Science**, 2016, 7: 1412. (\*Co-corresponding author)
- 21) Wang Haibin, Qi Xiangyu, Chen Sumei, Fang Weimin, Guan Zhiyong, Teng Nianjun, Liao Yuan, **Jiang Jiafu\*** & Chen Fadi\*. Limited DNA methylation variation and the transcription of MET1 and DDM1 in the genus Chrysanthemum (Asteraceae): following the track of polyploidy. **Frontiers in Plant Science**, 2015, 6: 668. (\*Co-corresponding author)
- 22) Ren Liping, Sun Jing, Chen Sumei, Gao Jiaojiao, Dong Bin, Liu Yanan, Xia Xiaolong, Wang Yinjie, Liao Yuan, Teng Nianjun, Fang Weimin, Guan Zhiyong, Chen Fadi\*, **Jiang Jiafu\***. A transcriptomic analysis of *Chrysanthemum nankingense* provides

insights into the basis of low temperature tolerance. **BMC Genomics**, 15:844, **2014**  
(\*Co-corresponding author)

- 23) Sun Jing, Ren Liping, Cheng Yue, Gao Jiaojiao, Dong Bin, Chen Sumei, Chen Fadi\*, **Jiang Jiafu\***. Identification of differentially expressed genes in *Chrysanthemum nankingense* (Asteraceae) under heat stress by RNA Seq. **Gene**, 552: 59-66, **2014**  
(\*Co-corresponding author)
- 24) Zhao Min, Song Aiping, Li Peiling, Chen Sumei, **Jiang Jiafu\***, Fadi Chen\*. A bHLH transcription factor regulates iron intake under Fe deficiency in chrysanthemum. **Scientific Reports**, 4, 6694, **2014** (\*Co-corresponding author)
- 25) Huiyun Li, Sumei Chen, Aiping Song, Haibin Wang, Weimin Fang, Zhiyong Guan, **Jiafu Jiang\***, Fadi Chen\*. RNA-Seq derived identification of differential transcription in the chrysanthemum leaf following inoculation with *Alternaria tenuissima*. **BMC Genomics**. 15:9, **2014** (\*Co-corresponding author).
- 26) Wang Haibin, **Jiang Jiafu\***, Chen Sumei, Fang Weimin, Guan Zhiyong, Liao Yuan, Chen Fadi\*. Rapid genomic and transcriptomic alterations induced by wide hybridization: *Chrysanthemum nankingense* x *Tanacetum vulgare* and *C. crassum* x *Crossostephium chinense* (Asteraceae). **BMC Genomics**. 14: 902, **2013**  
(\*Co-corresponding author).
- 27) Liu Peng, Chen Sumei, Song Aiping, Zhao Shuang, Fang Weimin, Guan Zhiyong, Liao Yuan, **Jiang Jiafu\***, Fadi Chen\*. A putative high affinity phosphate transporter CmPT1, enhances tolerance to Pi deficiency of chrysanthemum. **BMC Plant Biology**. 14:18, **2014** (\*Co-corresponding author)