



蒋甲福

职称：教授、博士生导师

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研究方向：

- 观赏植物遗传育种与分子生物学：
- ◆ 菊花开花分子机理调控
 - ◆ 生物技术育种

教育经历：

2007-2010 美国得州理工大学 博士后
2006-2007 新加坡国立大学 博士后
2002-2006 中国科学院植物研究所 博士学位
1999-2002 南京农业大学 硕士学位
1995-1999 南京农业大学 学士学位

主要工作经历：

2011. 3-至今 南京农业大学园艺学院 教授，博士生导师

主要执教课程：

主讲本科生《花卉育种学》和研究生《观赏植物遗传育种》，参与本科生《园艺作物育种学总论（双语）》等课程的教学工作

主要承担课题：

先后主持国家重点研发课题 1 项、国家自然科学基金重点项目 1 项、国家自然科学基金面上项目 4 项、教育部新世纪优秀人才支持计划和南京农业大学高层次人才引进项目等。

科研成果：

任职以来，以通讯作者（含并列）在 *Plant Biotechnology Journal*、*Plant Cell and Environment*、*Journal of Pineal Research* 和 *Horticulture Research* 等刊物发表 SCI 论文 30 余篇。以第 1 完成人获授权国家发明专利 2 项，5 个菊花品种获得农业部新品种权，2 个菊花品种通过江苏省农作物新品种鉴定。参与获得省部级奖项多项。

发表文章（*通讯作者）：

- 1) Yaoyao Huang, Xiaojuan Xing, Yun Tang, Jinyu Jin, Lian Ding, Aiping Song, Sumei Chen, Fadi Chen, **Jiafu Jiang*** and Weimin Fang*. An ethylene-responsive transcription factor and a flowering locus KH domain homologue jointly modulate photoperiodic flowering in chrysanthemum. **Plant Cell and Environment**, 2022, DOI: 10.1111/pce.14261. (*Co-corresponding author, IF5: 7.0437)
- 2) Fei Li, Qian Hu, Fadi Chen and **Jia Fu Jiang***. Transcriptome analysis reveals Vernalization is independent of cold acclimation in Arabidopsis. **BMC Genomics**, 2021 Jun 21; 22(1): 462.
- 3) Xiaoying Han, Yuting Luo, Jiaoyang Lin, Huiying Wu, Hao Sun, Lijie Zhou, Sumei Chen, Zhiyong Guan, Weimin Fang, Fei Zhang, Fadi Chen, and **Jiafu Jiang***. Generation of purple-violet chrysanthemums via anthocyanin B-ring hydroxylation and glucosylation introduced from *Osteospermum* hybrid F3'5'H and *Clitoria ternatea* A3'5'GT. **Ornamental Plant Research**, January 2021, 1: 4
- 4) Wang L, Cheng H, Wang Q, Si C, Yang Y, Yu Y, Zhou L, Ding L, Song A, Xu D, Chen S, Fang W, Chen F, **Jiang J***. CmRCD1 represses flowering by directly interacting with CmBBX8 in summer chrysanthemum. **Horticulture Research**. 2021 Apr 1;8(1):79. (IF5: 6.589)
- 5) 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 Aug 1;7:129. (IF5: 6.589)
- 6) 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 Jul 1;7:96. (*Co-corresponding author, IF5: 6.589)
 - 7) 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 Jul;18(7):1562-1572 (IF5: 9.555)
 - 8) 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>
 - 9) 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**. 2020 Aug;62(8):1059-1064. (IF5: 6.002)
 - 10) 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.
 - 11) 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 Sep;67(2): e12582. (*Co-corresponding author, IF5: 11.895)
 - 12) 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

- 13) 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)
- 14) 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
- 15) 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.
- 16) 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
- 17) 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
- 18) 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
- 19) 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)
- 20) 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)

- 21) 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.
- 22) 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
- 23) Jiaojiao Gao, Jing Sun, Peipei Cao, Liping Ren, Chen Liu, Sumei Chen, Fadi Chen, and **Jiang Jiafu***. Variation in tissue Na⁺ content and the activity of SOS1 genes among two species and two related genera of *Chrysanthemum*. **BMC Plant Biol**. 2016; 16: 98
- 24) 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)
- 25) 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)
- 26) 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)
- 27) 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)
- 28) 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)

- 29) 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).
- 30) 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).
- 31) 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)

第一作者

- 32) **Jiafu Jiang**, Bangshing Wang, Yun Shen, Hui Wang, Qing Feng, Huazhong Shi. The Arabidopsis RNA binding protein with K homology motifs, SHINY1, interacts with the C-terminal domain phosphatase-like 1 (CPL1) to repress stress-inducible gene expression. *PLoS Genetics*. 9(7): e1003625, **2013** (IF, 9.44).
- 33) Chen Yu[#], **Jiang Jiafu[#]**, Song Aiping, Chen Sumei, Shan Hong, Luo Huolin, Gu Chunsun, Sun Jing, Zhu Lu, Fang Weimin, Chen Fadi. Ambient temperature enhanced freezing tolerance of *Chrysanthemum dichrum* CdICE1 Arabidopsis via miR398. *BMC Biology*. 11:121, **2013** ([#]Co-first author; IF, 6.53).
- 34) Li J[#], **Jiang JF[#]**, Qian Q[#], Xu Y, Zhang C, Xiao J, Du C, Luo W, Zou G, Chen M, Huang Y, Feng Y, Cheng Z, Yuan M, Chong K. Mutation of rice BC12/GDD1, which encodes a Kinesin-like protein that binds to a GA biosynthesis gene promoter, leads to dwarfism with impaired cell elongation. *The Plant Cell*. 23: 628–640, **2011** ([#]Co-first author; IF, 9.396).
- 35) Baek Daek[#], **Jiang Jiafu[#]**, Chung Jung-Sung[#], Wang Bangshing, Chen Junping, Xin Zhanguo, Shi Huazhong. *AtHKT1* Gene expression regulated by a distal enhancer element and DNA methylation in promoter plays an important role in salt tolerance. *Plant Cell and Physiology*. 52(1): 149~61. **2011**([#]Co-first author co-first author)

- 36) **Jiang Jiafu**[#], Li J[#], Xu Y, Han Y, Bai Y, Zhou G, Lou Y, Xu Z, Chong Kang. RNAi knockdown of *OsRMC* led to altered root development and coiling which were mediated by jasmonic acid signaling in rice. *Plant, Cell and Environment*. 30(6): 690~699, **2007**(IF, 5.081) (#Co-first author)
- 37) **Jiang Jiafu**, Xu Y, Chong Kang. Overexpression of *OsJAC1*, a lectin gene, suppresses the coleoptile and stem elongation in rice. *Journal of Integrative Plant Biology*. 49 (2): 230~237, **2007**. (IF 3.448)
- 38) Zhuang X[#], **Jiang Jiafu** [#], Li J, Ma Q, Xu Y, Xue Y, Xu Z, Chong Kang. Over-expression of OsAGAP, an ARF-GAP, interferes with auxin influx, vesicle trafficking and root development. *The Plant Journal*. 48(4): 581~591, **2006**. (#Co-first author; IF, 6.946)
- 39) **Jiang Jiafu**, Han Y, Xing L, Xu Y, Xu Z, Chong Kang. Cloning and expression of a novel cDNA encoding a mannose-specific jacalin-related lectin from *Oryza sativa*. *Toxicon*. 47(1): 133~139, **2006**. (IF, 2.128).
- 40) Xu Mingli[#], **Jiang Jiafu** [#], Ge L, Xu Y, Chen H, Zhao Y, Bi Y, Wen J, Chong Kang. *FPF1* transgene leads to altered flowering time and root development in rice. *Plant Cell Reports*. 24: 79~85, **2005**.(#Co-first author).

中文论文

- 41) 蒋甲福, 杨一曼, 王琦, **蒋甲福***. 植物开花素 FT 的功能及其表观调控机制的研究进展. 南京农业大学学报, 2021, 44(5): 805—811.
- 42) 司超娜, 张嘉欣, 陈发棣, **蒋甲福***. 菊花 CmCDKL9 基因的克隆与表达模式分析. 南京农业大学学报, 2021, 44(4): 667-674.
- 43) 吴茜, 蔡晓霖, 管志勇, 朱波, 易利, 郑永生, 邓邦清, **蒋甲福***. 茶菊病毒检测与脱除技术研究. 核农学报, 2021, 35(7): 1548-1556.
- 44) 罗宇婷, 黄艺清, 黄琪, 朱品清, 钟声远, 房伟民, 管志勇, 王海滨, 陈发棣, **蒋甲福***. 优选盆栽小菊高效再生及转化体系的建立. 江苏农业科学, 2020, 48(11): 61-66.
- 45) 邓叶, 阳淑金, 杜新平, 董彬, 任丽萍, 房伟民, 陈发棣, **蒋甲福***. 菊花高效瞬时转化体系建立及稳定遗传植株再生. 南京农业大学学报. 2017, 40(1):48-53.
- 46) 曹沛沛, 毛雅超, 刘涛, 陈发棣, 房伟民, 陈素梅, **蒋甲福***. 菊花 Cm14-3-3v 基因的克隆及表达分析. 南京农业大学学报.2017, 40(5):820-826.

- 47) 展妍丽, 王萃铂, 亓钰莹, 陈发棣, 蒋甲福*. 菊花开花抑制基因 CmFLC-like1 的克隆及表达特性分析. 园艺学报, 2015, 42 (7): 1347-1355
- 48) 亓钰莹, 展妍丽, 王萃铂, 陈发棣, 蒋甲福*. AtCPL1 调控拟南芥开花的机制. 植物学报, 2016, 51(1): 9-15
- 49) 刘涛, 任莉萍, 曹沛沛, 陈发棣, 房伟民, 陈素梅, 管志勇, 腾年军, 张飞, 赵爽, 王海滨, 宋爱萍, 蒋甲福*. 菊花不同时期各组织器官石蜡切片制作条件的优化. 南京农业大学学报, 2016, 39(5): 739-746.
- 50) 王萃铂, 张瓚, 张晓雪, 展妍丽, 亓钰莹, 蒋甲福*. 菊花转录因子 CmMYB59 的克隆与表达特性分析. 南京农业大学学报, 2016, 39(1): 63-69
- 51) 程越, 韩笑, 杨焯, 陈发棣, 房伟民, 蒋甲福*. 菊花脑花器官的离体培养. 南京农业大学学报, 2015, 38(1): 57-62
- 52) 阳淑金, 宋爱萍, 何深颖, 朱晓晨, 孙静, 高姣姣, 王银杰, 陈发棣, 蒋甲福*. CaMV 35S 启动子在菊花中驱动 GUS 外源基因的表达分析. 南京农业大学学报. 南京农业大学学报, 2015, 38(4): 554-559
- 53) 陈发棣, 蒋甲福, 郭维明, 房伟民, 赵宏波. 小菊悬浮细胞培养与植株再生研究. 园艺学报. 2006. 1021-1026
- 54) 蒋甲福, 陈发棣, 管志勇, 房伟民. 小菊自交种子辐射生物学效应的研究. 核农学报 2004, 18(6),431-434.
- 55) 陈发棣, 蒋甲福, 郭维明. 小菊若干花器官性状在 F1 代的表现. 园艺学报, 2003, 30, 175-182.
- 56) 蒋甲福, 陈发棣, 郭维明. 小菊杂种一代部分性状的遗传与变异研究. 南京农业大学学报, 2003, 26(2):11-15.
- 57) 陈发棣, 蒋甲福, 郭维明. 小菊悬浮细胞辐射育种初步研究 I. 基因型、外植体和诱导愈伤组织培养基的选择. 南京农业大学学报, 2003, 26(4):26-29
- 58) 陈发棣, 蒋甲福, 房伟民. 秋水仙素诱导菊花脑多倍体的研究. 上海农业学报, 2002, 18(1),46-50.

社会服务工作：

- ◆ 担任 Horticulturae、Ornamental Plant Research 编委, Journal of Pineal

Research、Plant Molecular Biology、Molecular Breeding、Plant Science、Plant Cell Report 等 SCI 杂志审稿人

- ◆ 江苏省遗传学会常务理事，中国园艺学会青年分会常务理事及副秘书长，中国菊花研究会、江苏省园艺学会等会员

荣誉称号：

- ◆ 入选“教育部新世纪优秀人才”
- ◆ 江苏省“青蓝工程”中青年学术带头人
- ◆ 江苏省“双创计划”人才
- ◆ 江苏省“333 高层次人才培养工程”培养对象
- ◆ 荣获“大北农青年学者奖”