Curriculum Vitae

Name：Zhaojun Ding

Gender: Male

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Education and Research Experience：

1998-2003, PhD under the supervision of Prof. Tai Wang and Prof. Kang Chong in the Institute of Botany, Chinese Academy of Sciences, Beijing.

The research was focused on the cloning and functional **a**nalysis of genes involved in flower development of Rice. Through subtractive hybridization, the rice tapetum-specific gene *RA39* and meiosis related gene *OsDMC1* were isolated and characterized. It was found that *RA39* is involved in the rice flower development through regulating the timely degradation of the rice tapetum. Part of this work has been published (Ding 2002, ***Sex Plant Reprod***). *OsDMC1* was found to participate in the rice flower development through the regulation of meiosis. This work has been published (Ding 2001, ***Sex Plant Reprod***).

2004-2006, postdoctoral fellow with Dr. Seth Davis in Max-Plank-Instiute for Plant Breeding Research, Cologne.

The research was focused on the plant circadian clock. Through genetic analysis, we provided direct experimental support for previous modeling efforts where CCA1/LHY along with TOC1 drive the circadian oscillator, and have shown that this clock is essential for correct output regulation (Ding 2007a, ***Genetics***). We also found TIC (TIME FOR COFFEE) as a closer relationship with LHY than with CCA1, it encode a pioneer protein continuously present over the diurnal cycle. We suggested that TIC encodes a nuclear-acting clock regulator working close to the central oscillator (Ding 2007b, ***Plant Cell***).

2007-2010，postdoctoral fellow with Prof. Jiri Friml in the department of Plant Systems Biology,VIB Ghent University.

The research was focused on how the polar auxin transport generates auxin maxima and gradients within tissues, which are instrumental in the diverse regulation of various plant developmental processes, such as root stem cell differentiation and phototropism. We found that,

besides the intercellular polar auxin transport which is mediated by the plasma membrane localized influx and efflux carriers, auxin can also be polarly transported intracellularly by the ER localized auxin transports such as PIN5 and PIN8. Furthermore, we also found that PIN5 and PIN8, which colocalized into ER, have antagonistic roles in auxin transport, plant growth and development. This work has been submitted to Science. Another project which i am running is how auxin regulates root stem cell differentiation. We found long-distance auxin signals act upstream of the short-range network of transcriptional factors to mediate the differentiation of distal stem cells in roots. This work has been published(Ding 2010a, *PNAS*). I am also interested how polar auxin transport involved into plant photropism. We found that PINOID(PID) is involved in plant phototropism through the regulation of PIN3 phosphorylation status and polarization. This work has been submitted to *Nat. Cell Bio*, it is under revision right now.

Awards and Prizes:

2000-2001 Yingang Peng Scholarship for Excellence.

2001-2002 DiAo Scholarship for Excellence.

Publications:

1) **Zhaojun Ding**, Tai Wang, Kang Chong and Shunong Bai. Isolation and Characterization of *OsDMC1*, the Rice Homologue of the Yeast *DMC1* Gene Essential for Meiosis. ***Sex Plant Reprod***, 13:285-288,2001.
2) Tai Wang**, Zhaojun Ding**. The Research Development of Genes about Meiosis. ***Chinese Science Bulletin***, 47(4)241-248,2002.
3) **Zhaojun Ding**, Tai Wang et al. The Rice Tapetum-specific Gene RA39 Encodes a TypeI Ribosome-inactivating Protein. ***Sex Plant Reprod***,15:205-212,2002.
4) **Zhaojun Ding**, Zhuyun Deng, Jiayi Tao, Liangran Zhang and Tai Wang. The molecular mechanism of chromosome segregation. ***Chinese Science Bulletin***, 47(4)2014-2021,2003.
5) **Zhaojun Ding**, Doyle MR, Amasino RM, Davis SJ. A complex genetic interaction between *Arabidopsis thaliana* TOC1 and CCA1/LHY in driving the circadian clock and in output regulation. ***Genetics,*** 176(3):1501-10, 2007 Jul. (Issue highlighted paper).

6) **Zhaojun Ding**, Millar AJ, Davis AM, Davis SJ. *TIME FOR COFFEE* encodes a nuclear regulator in the *Arabidopsis thaliana* circadian clock. *Plant Cell*, 19(5):1522-36, 2007 May.

7) Zádníková P, Petrásek J, Marhavy P, Raz V, Vandenbussche F, **Zhaojun Ding**, Schwarzerová K, Morita MT, Tasaka M, Hejátko J, Van Der Straeten D, Friml J, Benková E. Role of PIN-mediated auxin efflux in apical hook development of *Arabidopsis thaliana*. ***Development***, 137(4):607-17, 2010 Feb.

8) **Zhaojun Ding** and Jiri Friml. Auxin regulates distal stem cell differentiation in Arabidopsis roots. ***PNAS***, 2010. (in press).

9) **Zhaojun Ding** et al., Light-mediated polarization of auxin transport for phototropic response in Arabidopsis. ***Nat Cell Bio.*** (under revision).

10) **Zhaojun Ding** et al., PIN5 and PIN8 have an antagonistic role in auxin transport, plant growth and development. (Submitted to Science).

11) **Zhaojun Ding** et al., WOX5 regulates root development through manipulating auxin homeostasis. (in preparation).

Meetings：

1. International Plant Photobiology meeting in Paris, 2006, Poster.
2. EMBO meeting in Gent, 2007, Poster.
3. Auxins and *Cytokinins* in Plant Development - International Symposium in Prague，2009, Oral presentation.
4. The 20th IPGSA meeting in Tarragona, 2010, Poster.