#### Juan Du

**Experience**

* **Research associate (2015. 10 – present)**

Department of Biochemistry and Molecular Biology, The Pennsylvania State University

* **Postdoctoral researcher (2012. 03 – 2015. 06)**

Department of Biochemistry and Molecular Biology, The Pennsylvania State University

* **Postdoctoral researcher (2010. 07 – 2012.02)**

Department of Biochemistry and Molecular Biology, The Pennsylvania State University

**Education**

* **Ph. D. Degree in Genetics (2004. 08 – 2010. 06)**

Institute of Genetics and Developmental Biology, Chinese Academy of Sciences

* **M. S. Degree in Biochemistry & molecular biology (2001. 09 – 2004. 07)**

Maize Institute, Sichuan Agricultural University

* **B. S. Degree in Biotechnology (1997. 09 – 2001. 07)**

Sichuan Agricultural University

**Research experiences**

**Mar 2012 – present, postdoctoral research**

**Department of Biochemistry and Molecular Biology, Pennsylvania State University**

**PI: Prof. Tracy Nixon**

* Purification and characterization of cellulose synthase A-B complex in Gluconacetobacter xylinus
* Understanding Structural Asymmetry in AAA+ ATPase/σ54-RNAP/Promoter Complex

**Jul 2010 – Feb 2012, postdoctoral research**

**Department of Biochemistry and Molecular Biology, Pennsylvania State University**

**PI: Dr. Ying Gu**

* Characterization of Cellulose synthase INTERACTIVE3 (CSI3) in Arabidopsis
* Identification and characterization of new components involved in cellulose biosynthesis of Arabidopsis
* Interaction protein identification of cellulose synthases using split-ubiquitin system in yeast

**Aug 2004 - May 2005 & Feb 2006 - Jun 2010, Ph.D thesis**

**Institute of Genetics and Developmental Biology, Chinese Academy of Sciences**

**Supervisor: Professor Hong-Qing Ling**

* SlbHLH068 interacts with FER to regulate the iron-deficiency response in tomato
* Genome-wide transcriptional analysis revealed overlapping and unique function of two basic helix-loop-helix transcription factors *bHLH38* and *bHLH39* in *Arabidopsis*
* Analysis of QTLs for Mineral Accumulation in Rice Grains
* Interaction of iron / phosphorus metabolism in *Arabidopsis*

**Jun 2005 - Jan 2006, visiting Ph.D student for international collaborative project**

**Laboratory of Genetics in Wageningen University, the Netherlands**

**Supervisor: Dr. Mark G. M. Aarts**

* Characterization of Quantitative Trait Loci involving Fe-content in seeds as identified in the Ler x Cvi recombinant inbred line population

**Sep 2001 – Jul 2004, Master thesis**

**Maize Institute, Sichuan Agricultural University**

**Supervisor: Prof. Wan-chen Li**

* Cloning and expression analysis of plant stress inducible promoter mwcs120
* Over-expression of exotic superoxide dismutase gene *MnSOD* in maize and stress resistance analysis of transgenic plant

**Publications**

* Sung Hyun Cho, **J Du**, Ian Sines, Venkata Giridhar Poosarla, Venkata Vepachedu, Kabindra Kafle, Yong Bum Park, Seong H Kim, Manish Kumar\*, B Tracy Nixon\* (2015) In vitro synthesis of cellulose microfibrils by membrane protein from protoplasts of the non-vascular plant Physcomitrella patens. *Biochemical Journal* Jun 30; DOI: 10.1042/BJ20141391
* **J Du**, Z Huang, B Wang, H Sun, C Chen, H Ling\*, H Wu\*. (2015) SlbHLH068 interacts with FER to regulate the iron-deficiency response in tomato. *Annals of Botany* 116(1):23-34
* L Lei, S Li, **J Du**, L Bashline, Y Gu. (2013) Cellulose synthase INTERACTIVE3 regulates cellulose biosynthesis in both a microtubule-dependent and microtubule-independent manner in *Arabidopsis*. *Plant Cell* 25(12):4912-23
* N Wang, Y Cui, Y Liu, H Fan, **J Du**, Z Huang, Y Yuan, H Wu and H Ling. (2013) Requirement and functional redundancy of Ib subgroup bHLH proteins for iron deficiency responses and uptake in *Arabidopsis thaliana. Molecular plant* 6(2): 503-513
* H Wu, C Chen, **J Du**, H Liu, Y Cui, Y Zhang, Y He, J Li, Z Feng, Y Wang, C Chu and H Ling. (2012) Co-overexpression FIT with AtbHLH38 or AtbHLH39 in Arabidopsis enhanced cadmium tolerance via increased cadmium sequestration in roots and improved iron homeostasis of shoots. *Plant Physiol*. 158(2): 790-800
* **J Du**\*, D Zeng\*, B Wang, Q Qian, S Zheng, H Ling. (2013) Environmental effects on mineral accumulation in rice grains and identification of ecological specific QTLs. *Environ Geochem Health* 35(2):161-170
* L Bashline, **J Du**, Y Gu (2011) The trafficking and behavior of cellulose synthase and a glimpse of potential cellulose synthesis regulators. *Front. Biol*. 6(5): 377-383
* H Wu, Y Ji, **J Du**, D Kong, H Liang and H Ling. (2010) ClpC1, an ATP-dependent Clp protease in plastids, is involved in the iron metabolism in Arabidopsis leaves. *Annals of Botany* 105(5):823-33.
* H Ling, **J Du** and N Wang.(2008) Progress in understanding the molecular regulation of iron uptake in strategy I plants. In: Development and uses of biofortified agricultural products. Edited by Gary S. Banuelos and Zhi-Qing Lin, CRC Press, Taylor & Francis Group, 221-229.
* Y Yuan\*, H Wu\*, N Wang, J Li, W Zhao, **J Du**, D Wang and H Ling. (2008) FIT interacts with AtbHLH38 and AtbHLH39 in regulating iron uptake gene expression for iron homeostasis in *Arabidopsis*. *Cell Research* 18:385-397.
* **J Du**, Z Zhu, W Li. (2006) Over-expression of exotic superoxide dismutase gene MnSOD and increase in stress resistance in Maize. *Journal of Plant Physiology and Molecular* *Biology* 32 (1): 57-63.
* **J Du**, Z Zhu, W Li. (2005) Cloning and expression properties of plant stress inducible promoter mwcs120. *Acta Agronomica Sinica* 31 (10): 1328-1332
* H Wu, L Li, **J Du**, Y Yuan, X Cheng and H Ling. (2005) Molecular and biochemical characterization of the Fe(III) chelate reductase gene family in *Arabidopsis thaliana*. *Plant and Cell Physiology* 46 (9):1505-14.
* C Xiao, **J Du**, W Li. (2004) Optimization of preparation techniques of Taq DNA Polymerase. *Journal of Sichuan Agricultural University* 22 (4):318-321.

**Conference presentation**

* **J Du**, D Zeng, Q Qian, H Ling. QTL Analysis for Mineral Content in Rice. (Poster presentation) **Awarded 2nd Prize for Poster Presentation in XIV International Symposium on Iron Nutrition and Interactions in Plants. 2008. Beijing. China.**
* **J Du**, Y Shipelskiy, M Tien, BT Nixon. Purification and electron microscopic analysis in Acetobacter cellulose synthase complex. (Poster presentation) **Workshop on Advanced Topics in EM Structure Determination: Optimization and Validation. 2012. The Scripps Research Institute, San Diego, USA**