Hongchang Cui, PhD

Assistant Professor
Department of Biological Science
Florida State University
319 Stadium Drive
Tallahassee, FL 32306-4295
Phone: 850-645-1967
hcui@bio.fsu.edu

EDUCATION

2003 – 2009 Postdoc, Developmental Biology, Duke University, Durham, NC.
Advisor: Dr. Philip N. Benfey
2003 PhD, Plant Physiology, the Pennsylvania State University, State College, PA.
Advisor: Dr. Nina V. Fedoroff
1990 MS, Botany, Department of Biology, Peking University, Beijing.
Advisor: Dr. Zhengli Li
1987 BS, Botany, Department of Biology, Peking University, Beijing

AWARDS AND HONORS

2011 Registration fee award for the 22th International Conference on Arabidopsis Research
2007 1st prize for postdoctoral talks, Southeast SDB meeting, Chapel Hill, NC
2003 The Alumni Association Dissertation Award, Penn State University
2002 Keystone scholarship for the conference "Epigenetics in Development and Disease," Taos, NM
2000 Nina Fedoroff Teaching Assistant Award, Penn State University
1997-9 Life Sciences Consortium predoctoral fellowship, Penn State University
1995 3rd prize for Advancement in Science & Technology, Beijing Municipal government, Beijing
1994 1st prize for academic achievement, Beijing Academy of Agriculture & Forestry, Beijing
1993 2nd prize for Advancement in Science & Technology, Beijing Municipal government, Beijing
1990 Guanghua Award for graduate studies, Peking University
1987 Award for academic excellence in undergraduate studies, Peking University

RESEARCH EXPERIENCE

2003-present Postdoctoral Fellow with Dr, Philip N. Benfey at Duke University
1997-2003 PhD studies with Dr, Nina V. Fedoroff at Penn State University
1990-1997 Research assistant, Beijing Vegetable Research Center, Beijing Academyof Agriculture & Forestry, Beijing
1993-1994 Visiting fellow, Department of Food Science, Cornell University

TEACHING EXPERIENCE

2011 Plant Biology BOT3015 and BOT3015L, Florida State University
1998-99 Teaching assistant, courses BMB 342 and BMB445W, the PennsylvaniaState University
1992 Lecture on "Application of HPLC on Vegetable Research" (in English) —— An

International Training Course on Vegetable Studies, Beijing

1988-89 Teaching assistant, lab on plant anatomy, Peking University. In addition, Ihave trained a number of undergraduate students, graduate students and technicians.

PUBLICATIONS

1. **Cui H** (2012) Killing two birds with one stone - transcriptional regulators coordinate development and stress responses in plants. *Plant Signaling & Behavior (in press)*.
2. **Cui H**, Y Hao, and D Kong (2012) SCARECROW has a SHORT-ROOT independent role in modulating the sugar response. *Plant Physiology 158:* 1769-1788.
3. Hao Y, and **H Cui** (2012) SHORT-ROOT regulates vascular patterning, but not apical meristematic activity, in the Arabidopsis root through cytokinin homeostasis. *Plant Signaling & Behavior 7:* 314-317.
4. **Cui H**, Hao Y, Kovtun M, Viktor S, Deng XW. Genome-wide direct target analysis reveals a role for SHORT-ROOT in vascular patterning through cytokinin signaling. *Plant Physiol*ogy 157: 1221-1331 (Cover story; recommended by the Faculty1000).
5. Iyer-Pascuzzi, A. S., T. Jackson, **H. Cui**, J. J. Petricka, W. Busch, H. Tsukagoshi, and P. N. Benfey (2011) Cell identity regulators link development and stress responses in the Arabidopsis root. *Dev Cell 21:* 770-782.
6. Sozzani R*, **Cui H*,** Moreno-Risueno MA, Busch W, Van Norman JM, Vernoux T,Brady SM, Dewitte W, Murray JA and Benfey PN, 2010. Spatiotemporal regulation of cell-cycle genes by SHORT-ROOT links patterning and growth. *Nature* 466:128-132 (*equal contribution).
7. **Cui H,** and Benfey PN, 2009. Cortex proliferation: simple phenotype, complex regulatory mechanisms. *Plant Signaling and Behavior,* 4:551-553.
8. **Cui H,** and Benfey PN, 2009. Interplay between SCARECROW, GA and LIKE HETEROCHROMATIN PROTEIN 1 in ground tissue patterning in the *Arabidopsis* root. *Plant Journal* 58:1016-1027.
9. **Cui H**, Levesque MP, Vernoux T, Wang JY, Blilou I, Scheres B, and Benfey PN, 2007. An evolutionarily conserved mechanism delimiting SHR movement defines a single layer of endodermis in plants. *Science* 316:421-425 (article highlighted *in Cell, Nature, Science, STKE, JCB* and *C&E* news; "Must Read" by the Faculty 1000)
10. Levesque MP, Vernoux T, Busch W, **Cui H**, Wang JY, Blilou I, Hassan H, Nakajima K, Matsumoto N, Lohmann JU, Scheres B, Benfey PN, 2006. Whole-genome analysis of the SHORT-ROOT developmental pathway in Arabidopsis. *PLoS Biology* 4:e143.
11. **Cui H** and Fedoroff NV, 2002. Inducible DNA demethylation mediated by the maize *Spm* transposon-encoded TnpA protein. *Plant Cell* 14:2883-2899.
12. **Cui H**, Liu J and Sun S M, 1999. Improved conditions for the purification of phosphoglucomutase (PGM) isoenzymes from Chinese cabbage and studies of their molecular properties. *Acta Agriculture Borealis-Sinica*, 14(1):134-140.
13. **Cui H**, Li L, Zheng X and Sun SM, 1998. Purification of the heat-tolerance related isozyme of phosphoglucomutase from Chinese cabbage. *Acta Agriculture Borealis-Sinica*, 13(4): 86-92.
14. **Cui H**, 1996. Investigation of the major browning inhibitory factors in honey. *Acta Agriculture Borealis-Sinica*, 11(4): 125-128.
15. Jin T, **Cui H** and Kawano S, 1995. Determination of sugar content in apples by Near Infrared Spectrophotometry. *Acta Agriculture Borealis-Sinica*, 10(2): 87-90.
16. Jin T, Liu L, **Cui H** and Wu X, 1994. Determination of the nutritive constituents in Chinese cabbage by Near Infrared Spectrophotometry (NIRs). *Acta Agriculture Borealis-Sinica,* 9 (suppl): 32-34.

17. Jin T and **Cui H**, 1994. A new method for the determination of nutrients in intact strawberry by Near Infrared Spectrophotometry. *Acta Agriculture Borealis-Sinica*, 9(2): 120-123.
18. **Cui H** and Zheng X, 1993. Application of HPLC to seed variety identification of Chinese cabbage. *Seed*, 6: 53-58.
19. **Cui H**, 1993. Optimization of HPLC conditions for the separation of water-soluble proteins in Chinese cabbage seeds. *Seed*, 4: 7-12.
20. Su W, Liang J and **Cui H**, 1991. Morphology and anatomy of a new algae species *Pelvetia siliquosa*. *Ocean and Lake*, 6: 85-88.

BOOK CHAPTER

Hongchang Cui, 2011. The Epigenetic Basis of Cell-Fate Specification and Reprogramming. In "Epigenetics: A Reference Manual". Eds. Craig, J.M and Wong N.C. Caister Academic Press. Pp 183-194.

MANUSCRIPTS IN PREPARATION

1. **Cui, H**., Kong, D., and Hao, Y. *SPINDLY* acts downstream of *ERECTA* in redox-mediated cortex proliferation in the root of *Arabidopsis thaliana*.

INVITED TALKS

2012 The 10th International Conference on Plant Biology Frontiers: Development and Environment, Huangshan, China. "Getting to the root of root growth under abiotic stress."

2012 Plant Biology 2012, Austin, Texas. "Old dogs, new tricks—A systems approach uncovers important roles for SHORT-ROOT and SCARECROW in root morphogenesis and abiotic stress response."

2009 The North Carolina State University. "Finding the Hidden Jewels - A systems approach reveals new roles for SHORTROOT and SCARECROW in plant development and physiology."

2009 The Ohio State University. "Genetic and Epigenetic Mechanisms of Cell Fate Specification in the *Arabidopsis* Root."

2009 The 25th Symposium in Plant Biology - the Evolution of Plant Development. "Getting to the root of SHORT-ROOT and SCARECROW function." The University of California, Riverside

2008 The 19th International Conference on Arabidopsis Research, Montreal, Canada. "SHORTROOT and SCARECROW in Root Development and Land Plant Evolution: Old proteins, New Functions."

2007 Institute of Botany, Chinese Academy of Sciences, Beijing, China. "Radial patterning in the Arabidopsis root: a tale of two master regulators."

2007 Southeast regional Society of Developmental Biologists conference, Chapel Hill, NC. Title: "An evolutionarily conserved mechanism delimiting SHR movement defines a single layer of endodermis in plants."

2005 The 19th Annual Plant Molecular Biology Retreat, NC Biotechnology Center, Wrightsville, NC. Title: "Functional interdependency between SHR and SCR in radial patterning of the Arabidopsis root."