一、个人简介

崔洪昌，生物科学学院特聘教授，博士生导。师1983-90年就读于北京大学，获植物学本科和硕士学位。1990-97年在北京农林科学院工作，期间曾在美国康奈尔大学（Cornell University）以访问学者身份进修（1993-94年）。1997年获美国宾夕法尼亚州立大学（Pennsylvania State University）奖学金，赴美留学，师从于美国科学院院士Nina V. Fedoroff博士，研习植物表遗传方面的研究。2003年获植物生理学博士学位，同年加入了美国杜克大学（Duke University）、美国科学院院士Philip N. Benfey博士的实验室，开始从事植物根发育和系统生物生物学方面的研究。 2010年成被美国佛罗里达州立大学（Florida State University）聘为助理教授。2016年升为副教授，并获得终身教授职位；同年被西北农林科技大学聘为特聘教授。现为Frontiers in Plant Science期刊的审稿编辑；Plant Cell、Plant Physiology、Plant Journal、Molecular Plant和Scientific Reports等学术期的审稿人；美国、英国和以色列自然科学基金会基金评审。曾获多项奖项，包括宾州州立大学对研究生的最高奖项－The Alumni Dissertation Award。

二、主要科研领域与方向

植物根的发育是实验室的主要研究领域。其中一个方向是利用基因组学，表基因组学和分子遗传学等前沿生物技术，旨在阐明控制根里干细胞的维持和其他细胞类型分化的分子机制；另一个方向是研究逆境下根里各类细

胞的应激反应以及逆境对侧根发育的影响。近年来还开辟了 C3-C4 植物发育机制和作物改良方面的研究的研究。

三、主要研究成果

A. 代表性论文（＊通讯作者）

1. Cui H＊ (2016) Middle cortex formation in the root: an emergin picture of integrated regulatory mechanisms. *Molecular Plant 9:* 261-270.
2. Kong D, Y Hao, and H Cui＊ (2016) The WUSCHEL Related Homeobox Protein WOX7 Regulates the Sugar Response of Lateral Root Development in Arabidopsis thaliana. *Molecular Plant 9:* 261-270.
3. Cui H＊, D Kong, P Wei, Y Hao, KU Torii, J Lee, and J Li (2014) SPINDLY, ERECTA and its ligand STOMAGEN have a role in redox-mediated cortex proliferation in the Arabidopsis root. *Molecular Plant 7:* 1727-1739.
4. Gao X, C Wang, and H Cui＊ (2014) Identification of bundle sheath cell-fate factors provides new tools for C3-to-C4 engineering. *Plant Signaling & Behavior 9:* e29162.
5. Cui H＊, D Kong, X Liu, and Y Hao (2014) SCARECROW, SCR-LIKE 23 and SHORT-ROOT control bundle sheath cell fate and function in Arabidopsis thaliana. *Plant Journal 78:* 319-327.
6. 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.
7. Cui H＊ (2012) Killing two birds with one stone - Transcriptional regulators coordinate development and stress responses in plants. *Plant Signaling & Behavior 7:* 701-703.

8. 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.
9. Cui H＊, Y Hao, M Kovtun, V Stolc, X Deng, H Sakakibara, and M Kojima (2011) Genomewide direct target analysis reveals a role for SHORT-ROOT in root vascular patterning through cytokinin homeostasis. *Plant Physiology 157:* 1221-1231.
10. Sozzani R, H Cui (co-first author), M A Moreno-Risueno, W Busch, J M Van Norman, T Vernoux, S M Brady, W Dewitte, J A Murray, and P N Benfey (2010) Spatiotemporal regulation of cell-cycle genes by SHORT-ROOT links patterning and growth. *Nature 466:* 128-132.
11. Cui H and PN Benfey (2009) Cortex proliferation: simple phenotype, complex regulatory mechanisms. *Plant Signaling & Behavior 4:* 551-553.
12. Cui H and PN Benfey (2009) Interplay between SCARECROW, GA and LIKE HETEROCHROMATIN PROTEIN 1 in ground tissue patterning in the Arabidopsis root. *Plant Journal 58:* 1016-1027.
13. Cui H, M Levesque, T Vernoux, JY Wang, I Blilou, B Scheres, and PN Benfey (2007) An evolutionarily conserved mechanism delimiting SHR movement defines a single layer of endodermis in plants. *Science 316:* 421-425
14. Cui H and NV Fedoroff (2002) Inducible DNA demethylation mediated by the maize Spm transposon-encoded TnpA protein. *Plant Cell 14:* 2883-2899.

B. 专著

1. Cui H (in press) C3-to-C4 engineering: the next wave of green revolution. *In* Trivedi PK and Nath P, John Willey & Sons.（专著）

2. Cui H (2011) The Epigenetic Basis of Cell-Fate Specification and Reprogramming. *In* Epigenetics: A Reference Manual. Craig JM and Wong NC, Caister Academic Press. Pp182-194. （专著）

C. 专利

Cui H, Kong D and Hao Y (2013). Materials and methods for controlling bundle sheath cell fate and function in plants. （美国专利局专利号 61/833,771）

四、联系方式

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