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<p>个人简介:</p> <p>2009年获兰州大学植物学专业博士学位, 2009-2011年在兰州大学从事植物极端环境适应性方向博士后研究工作, 现在生化与细胞生物学教研室从事教学科研工作。主持3项国家自然科学基金和1项中国博士后科学基金等科研项目, 在Plant and Cell Physiology、Planta、Plant Science、Plant and Soil等国际学术刊物发表SCI论文24篇。</p>
<p>研究领域:</p> <p>主要从事植物逆境适应性与信号转导方向研究, 包括:</p> <ol style="list-style-type: none"> 1. NO等信号分子在植物抗逆性(抗铝毒、抗旱等)中的调控机制以及抗逆性基因的挖掘等。 2. 呼吸代谢多样性(G6PDH、AOX)在植物逆境适应性(抗铝毒、抗旱等)中的调控机制。
<p>主要学术及社会兼职:</p> <p>Advances in Crop Science and Technology期刊编委。</p>
<p>主持或参加科研项目情况:</p> <ol style="list-style-type: none"> 1. 国家自然科学基金联合基金, 铝胁迫下NO和H2O2互作调控根系柠檬酸分泌的作用机制(U1704121), 2018.01-2020.12, 50万, 主持。 2. 国家自然科学基金青年基金, 铝胁迫下NO信号途径对红芸豆柠檬酸分泌的调控机制(31301252), 2014.01-2016.12, 22万, 主持。 3. 国家自然科学基金联合基金, 呼吸代谢多样性在植物干旱适应性中的作用机制研究(U1204305), 2013.01-2015.12, 30万, 主持。 4. 河南师范大学优秀青年科学基金, 铝胁迫下红芸豆根系柠檬酸分泌特性及调控机理研究(14YQ003), 2015.07-2018.07, 15万, 主持。 5. 河南省教育厅科学技术研究重点项目, 交替氧化酶在小麦抗旱中的调节作用及机制研究(13A180515), 2013.01-2015.12, 2万, 主持。 6. 中国博士后科学基金, 乙烯与呼吸途径的运行在植物低温适应性及信号转导中调节作用的机理研究(20100470884), 2010.09-2011.06, 3万, 主持。 7. 河南师范大学博士科研启动课题, 交替氧化酶响应干旱胁迫的作用机制及功能研究(11129), 2012.01-2014.12, 8万, 主持。 8. 河南省高校科技创新团队, 植物发育分子细胞生物学(15IRTSTHN020)2015.01-2017.12, 50万元, 参与(第二)。
<p>学术成果:</p> <p>代表性论文:</p> <ol style="list-style-type: none"> 1. Wang Huahua, Li Yan, Hou Junjie, Huang Junjun, Liang Weihong. Nitrate reductase-mediated nitric oxide production alleviates Al-induced inhibition of root elongation by regulating the ascorbate-glutathione cycle in soybean roots. Plant and Soil, 2017, 410:453-465. 2. Wang Huahua, Hou Junjie, Li Yan, Zhang Yangyang, Huang Junjun, Liang Weihong. Nitric oxide-mediated cytosolic glucose-6-phosphate dehydrogenase is involved in aluminum toxicity of soybean under high aluminum concentration. Plant and Soil, 2017, 416:39-52. 3. Wang Huahua, Huang Junjun, Li Yan, Li Changan, Hou Junjie, Liang Weihong. Involvement of nitric

- oxide-mediated alternative pathway in tolerance of wheat to drought stress by optimizing photosynthesis. *Plant Cell Reports*, 2016, 35:2033-2044.
4. Wang Huahua, Yang Lidan, Li Yan, Hou Junjie, Huang Junjun, Liang Weihong. Involvement of ABA- and H2O2-dependent cytosolic glucose-6-phosphate dehydrogenase in maintaining redox homeostasis in soybean roots under drought stress. *Plant Physiology and Biochemistry*, 2016, 107:126-136.
5. Liang Xiaolei, Wang Huahua, Hu Yanfeng, Mao Lina, Sun Lili, Dong Tian, Nan Wenbin, Yurong Bi. Silicon does not mitigate cell death in cultured tobacco BY-2 cells subjected to salinity without ethylene emission. *Plant Cell Reports*, 2015, 34:331-343. (co-first author)
6. Liang Weihong, Wang Huahua, Li Hui, Wang Junjie, Yang Dandan, Hao Yufan, Li Jiajia, Lou Chen, Lin Qunting, Hou Chengqiang. Isolation and characterization of OsMY1, a putative partner of OsRac5 from *Oryza sativa* L. *Molecular Biology Reports*, 2014, 41:1829-1836.
7. Huang Junjun, Wang Huahua, Liang Weihong, Xie Xiaojun, Guo Guangqin. Developmental Expression of Arabidopsis Methyltransferase Genes MET1, DRM2, and CMT3. *Molecular Biology*, 2014, 48:681-687.
8. Wang Huahua, Huang Junjun, Liang Weihong, Liang Xiaolei, Bi Yurong. Involvement of putrescine and nitric oxide in aluminum tolerance by modulating citrate secretion from roots of red kidney bean. *Plant and Soil*, 2013, 366:479-490.
9. Wang Huahua, Liang Weihong, Huang Junjun. Putrescine mediates aluminum tolerance in red kidney bean by modulating aluminum-induced oxidative stress. *Crop Science*, 2013, 53:2120-2128.
10. Wang Huahua, Huang Junjun, Liang Xiaolei, Bi Yurong. Involvement of hydrogen peroxide, calcium and ethylene in the induction of alternative respiratory pathway in chilling-stressed Arabidopsis callus. *Planta*, 2012, 235:53-67.
11. Liang Xiaolei, Wang Huahua, Mao Lina, Hu Yanfeng, Dong Tian, Zhang Yongqiang, Wang Xiaomin, Bi Yurong. Involvement of COP1 in ethylene- and light-regulated hypocotyls elongation. *Planta*, 2012, 236:1791-1802.
12. Zhang Zeyong, Wang Huahua, Wang Xiaomin, Bi Yurong. Nitric oxide enhances aluminum tolerance by affecting cell wall polysaccharides in rice roots. *Plant Cell Reports*, 2011, 30:1701-1711.
13. Wang Huahua, Liang Xiaolei, Huang Junjun, Zhang Dongkai, Lu Hongxia, Liu Zhongjuan, Bi Yurong. Involvement of ethylene and hydrogen peroxide in induction of alternative respiratory pathway in salt-treated Arabidopsis calluses. *Plant and Cell Physiology*, 2010, 51:1754-1765.
14. Wang Huahua, Huang Junjun, Bi Yurong. Nitrate reductase-dependent nitric oxide production is involved in aluminum tolerance in red kidney bean roots. *Plant Science*, 2010, 179:281-288.
15. Wang Huahua, Huang Junjun, Bi Yurong. Induction of alternative respiratory pathway involves nitric oxide, hydrogen peroxide and ethylene under salt stress. *Plant Signaling & Behavior*, 2010, 5:1636-1637.
16. Huang Junjun, Wang Huahua, Xie Xiaojun, Gao Huanhuan, Guo Guangqin. Developmental Changes in DNA Methylation of Pollen Mother Cells of David Lily during Meiotic Prophase I. *Molecular Biology*, 2010, 44:754-759.
17. Wang Huahua, Liang Xiaolei, Wan Qi, Wang Xiaomin, Bi Yurong. Ethylene and nitric oxide are involved in maintaining ion homeostasis in Arabidopsis callus under salt stress. *Planta*, 2009, 230:293-307.
- 获奖成果:
1. 王华华, 黄俊骏, 梁卫红, 梁晓磊, 毕玉蓉. Involvement of putrescine and nitric oxide in aluminum tolerance by modulating citrate secretion from roots of red kidney bean, 河南省自然科学优秀学术论文奖, 一等奖, 2015.12
2. 王华华, 黄俊骏, 梁晓磊, 毕玉蓉. Involvement of hydrogen peroxide, calcium, and ethylene in the induction of the alternative pathway in chilling-stressed Arabidopsis callus, 河南省自然科学优秀学术论文奖, 一等奖, 2013.12
3. 王华华, 梁卫红, 黄俊骏. Putrescine mediates aluminum tolerance in red kidney bean by modulating aluminum-induced oxidative stress, 河南省自然科学优秀学术论文奖, 二等奖, 2015.12