

## 一、 简历：

- 1, 2004 年获得以色列希伯来大学 (Hebrew University of Jerusalem) 植物生物学博士学位；
- 2, 2004-2012 年在美国埃默里大学 (Emory University) 医学院从事动物细胞离子稳态平衡机制研究(2004-2009 博士后, 2009-2012 聘为 Research Faculty), 2012-2015 聘为 Adjunct Professor。
- 3, 2012 年至今, 南京农业大学资环学院教授、博士生导师。

## 二、 研究领域：

- 1, 植物营养分子生物学
- 2, 植物耐盐分子育种

## 三、 主持科研项目：

- 1, 2013 年 1 月 - 2016 年 12 月, 国家自然科学基金面上项目 (80 万) : 耐盐菊芋两个钠 (钾) 氢逆向转运蛋白调控钾钠平衡和耐盐力差异的作用机制。
- 2, 2013 年 1 月 - 2015 年 12 月, 教育部博士点基金 (12 万) : 水稻高亲和钾转运体 OsHAK1 的功能研究。
- 3, 2013 年 10 月 - 2016 年 9 月, 国家自然科学基金委 国际 (地区) 重大合作项 目 (200 万) : 一石二鸟 - 揭秘高亲和钾转运体调控水稻株型的机理。
- 4, 2013 年 1 月 - 2015 年 12 月, 植物营养生物学江苏省创新团队骨干成员 (共 300 万, 本人获得 100 万的支助)。
- 5, 2014-2016 年, 转基因新品种培育重大专项, 参与子课题 (本人可支配 70 万) : 磷钾高效关键基因及其调控元件的功能及其育种价值鉴定。
- 6, 2016 年 1 月-2020 年 12 月, 转基因生物新品种培育重大专项的子课题, 主持 (2016-2018 年已划拨 78 万)。
- 7, 2016 年 7 月-2020 年 12 月, 国家重点研发计划: 主要农作物养分高效利用性状形成的遗传与分子基础, 水稻钾高效子课题主持 (本人获得资助 130 万)。

## 四、 发表文章：

- 1, Rice potassium transporter OsHAK1 is essential for maintaining potassium mediated growth and functions in salt tolerance over low and high

- potassium concentration ranges. *Plant Cell and Environment*. 2015. 38(12):2747-65.
- 2, Improving rice tolerance to potassium deficiency by enhancing OsHAK16p:WOX11-controlled root development. *Plant Biotechnol J*. 2015. 13(6):833-48.
  - 3, The role of OsHAK5 in potassium acquisition and transport from roots to shoots in rice at low potassium supply levels. *Plant Physiology*. 2014. 166 (2), 945–959.
  - 4, Do phosphoinositides regulate membrane water permeability of tobacco protoplasts by enhancing the aquaporin pathway? *Planta*. 2015. 241(3):741-55.
  - 5, Functional analyses of a putative plasma membrane Na<sup>+</sup>/H<sup>+</sup> antiporter gene isolated from salt tolerant *Helianthus tuberosus*. *Mol Biol Rep*. 2014. 41(8):5097-108.
  - 6, Exosomal GAPDH from Proximal Tubule Cells Regulate ENaC Activity. *PLoS One*. 2016. 11(11):e0165763.
  - 7, The sodium chloride cotransporter (NCC) and epithelial sodium channel (ENaC) associate. *Biochem J*. 2016. 473(19):3237-52.
  - 8, The Polarized Effect of Intracellular Calcium on the Renal Epithelial Sodium Channel Occurs as a Result of Subcellular Calcium Signaling Domains Maintained by Mitochondria. *J Biol Chem*. 2015. 290(48):28805-11.
  - 9, Unoprostone activation of BK (KCa1.1) channel splice variants. *Biochim Biophys Acta*. 2015. 1848(11 Pt A):2859-67.
  - 10, Calmodulin and CaMKII modulate ENaC activity by regulating the association of MARCKS and the cytoskeleton with the apical membrane. *Am J Physiol Renal Physiol*. 2015. 309(5):F456-63.
  - 11, Basolateral P2X<sub>4</sub> channels stimulate ENaC activity in *Xenopus* cortical collecting duct A6 cells. *Am J Physiol Renal Physiol*. 2014. 307(7):F806-13.
  - 12, Cytochalasin E alters the cytoskeleton and decreases ENaC activity in *Xenopus* 2F3 cells. *Am J Physiol Renal Physiol*. 2014. 307(1):F86-95.
  - 13, WNK4 inhibition of ENaC is independent of Nedd4-2-mediated ENaC ubiquitination. *Am J Physiol Renal Physiol*. 2013. 305(1):F31-41.
  - 14, The inhibitory effect of G $\alpha$  and G $\beta$  isoform specificity on ENaC activity. *Am J Physiol Renal Physiol*. 2013. 305(9): F1365–F1373.
  - 15, Estradiol activates epithelial sodium channels in rat alveolar cells through the G protein-coupled estrogen receptor. *Am J Physiol Lung Cell Mol Physiol*. 2013. 305(11):L878-89.
  - 16, Phosphatidylinositol phosphate-dependent regulation of *Xenopus* ENaC by MARCKS protein. *Am J Physiol Renal Physiol*. 2012. 303(6):F800-11.

- 17,  $\beta$ -Adrenergic agonists differentially regulate highly selective and nonselective epithelial sodium channels to promote alveolar fluid clearance in vivo. *Am J Physiol Lung Cell Mol Physiol*. 2012. 302(11):L1167-78.
- 18, Regulation of epithelial sodium channel trafficking by ubiquitination. *Proc Am Thorac Soc*. 2010. 7(1):54-64.
- 19, Two rice phosphate transporters, OsPht1;2 and OsPht1;6, have different functions and kinetic properties in uptake and translocation. *Plant J*. 2009. 57(5):798-809.
- 20, Phosphatidylinositol (4,5)bisphosphate inhibits K<sup>+</sup>-efflux channel activity in NT1 tobacco cultured cells. *Plant Physiol*. 2009. 149(2):1127-40.
- 21, Single-channel analysis of functional epithelial sodium channel (ENaC) stability at the apical membrane of A6 distal kidney cells. *Am J Physiol Renal Physiol*. 2008. 295(5):F1519-27.
- 22, Aldosterone-induced increases in superoxide production counters nitric oxide inhibition of epithelial Na channel activity in A6 distal nephron cells. *Am J Physiol Renal Physiol*. 2007. 293(5):F1666-77.
- 23, Effect of divalent heavy metals on epithelial Na<sup>+</sup> channels in A6 cells. *Am J Physiol Renal Physiol*. 2007. 293(1):F236-44.
- 24, Phosphorylation of SPICK2, an AKT2 channel homologue from *Samanea* motor cells. *J Exp Bot*. 2006. 57(14):3583-94.
- 25, Role of SGK1 in nitric oxide inhibition of ENaC in Na<sup>+</sup>-transporting epithelia. *Am J Physiol Cell Physiol*. 2005. 289(3):C717-26.
- 26, Extracellular protons inhibit the activity of inward-rectifying potassium channels in the motor cells of *Samanea saman* pulvini. *Plant Physiol*. 2001. 127(3):1310-22.