

## Ning-Hui Cheng



### **CAX1, CAX2, CAX3, CAX4, CHX13, CHx14**

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**Education:** Ph.D Nanjing Agricultural University, China, 1994

#### **Professional:**

1998-2000, Post-doc fellow, The Samuel Roberts Noble Foundation  
2000-2002, Post-doc fellow, Baylor College of Medicine  
2002-2003, Research Associate, Baylor College of Medicine  
2003-present, Instructor, Baylor College of Medicine

#### **Research focus:**

I have been working on the CAX1, CAX4, CHX13, and CHX14 since the 2010 project started two years ago. I have also worked on CAX2, CAX3 and CHX28 to identify the T-DNA insertional lines from various resources. To date, all null alleles for those genes except *cax4* have been isolated and some of them (*cax1*, *cax2*, *cax3*) have been characterized. Gene promoter::GUS and GFP fusion transgenic plants, such as 35S::CAX1-GFP, 35S::CAX3-GFP and 35S::CAX4-GFP, were created and gene expression patterns were tested, however, none of GFP fusion transgenic plants has been fully tested yet. Recent genetic studies demonstrate that CAX1 is functionally associated with CAX3 in plants, which is required for plant growth in response to ion imbalance (Cheng et al., 2005). Currently, I am trying to create *cax1/cax2* and *cax2/cax3* double mutants. Along with the *cax1/cax3* double mutant, I will be able to dissect the molecular mechanism underlying the specific interaction between CAX1 and CAX3, and the interplay among various CAXes.