

Chang Gyo Jung

Ph.D. Student in Dr. Yiqi Luo's Ecolab
Center for Ecosystem Science and Society (EcoSS)
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Education

2017.8 – present: Ph.D. student at Northern Arizona University, US

2015 – 2017.8: Ph.D. student at University of Oklahoma, US

2011 – 2013: Master of Science (Agriculture) at Kangwon National University, Korea

Thesis: Molecular characterization and concerted evolution of two genes encoding RING-C2 type proteins in rice

Advisor: Professor Cheol Seong Jang, Ph.D.

2005 – 2011: Bachelor of Science (Agriculture) at Kangwon National University, Korea

Academic Posters

1. Chang Gyo Jung and Yiqi Luo. 2017. Warming exacerbated impact of extreme drought on carbon cycle in tallgrass prairie. *Ecological Society of America(ESA) 2017*
2. Chang Gyo Jung, Fei Peng, Yiqi Luo. 2016. Leaf Respiratory Acclimation: Magnitude of Acclimation to the long-term warming in tall grass prairie. *American Geophysical Union(AGU) 2017*
3. Chang Gyo Jung, Sung Don Lim, Jin Kyu Hwang, Hwang Sun Goo, Cheol Seong Jang. 2011. Rice RING finger proteins; their expressions, E3 Ligase activities, subcellular Localizations, and putative networks. *Korean Society Of Breeding Science*, p. 125
4. Sung Don Lim, Chang Gyo Jung, Seo Jung Park, Cheol Seong Jang. 2011. Golgi-localized Homodimeric RING E3 Ligase Regulates Multiple Substrates, which Evidenced Responses to Salt Stress, Via the 26S Proteasomal Degradation Pathway. *Korean Society Of Crop Science*, p. 86
5. Chang Gyo Jung, Sung Don Lim, Cheol Seong Jang. 2010. Isolation and Molecular Characterization of the Two Genes Encoding RING Finger Proteins in Rice. *Korean Society Of Crop Science*, p. 84

Publications

1. Chang Gyo Jung, Sun-Goo Hwang, Yong Chan Park, Hyeon Mi Park, Dong Sub Kim, Duck Hwan Park, Cheol Seong Jang. 2015. Molecular characterization of the cold- and heat-induced Arabidopsis *PXL1* gene and its potential role in transduction pathways under temperature fluctuations. *Journal of Plant Physiology*, 176: 138-146
2. Chang Gyo Jung, Sung Don Lim, Sun-Goo Hwang, Cheol Seong Jang. 2012. Molecular characterization and concerted evolution of two genes encoding RING-C2type proteins in rice. *Gene*, 505: 9-18.
3. Sung Don Lim, Jin-Gyu Hwang, Chang Gyo Jung, Sun-Goo Hwang, Jun-Cheol Moon, Cheol Seong Jang. 2013. Comprehensive analysis of the rice RING E3 ligase family reveals their functional diversity in response to abiotic stress. *DNA Research*, 20(3): 299-314
4. Sung Don Lim, Chang Gyo Jung, Yong Chan Park, Sung Chul Lee, Changhui Lee, Chae Woo Lim, Dong Sup Kim, Cheol Seong Jang. 2015. Molecular dissection of a rice microtubule-associated RING finger protein and its potential role in salt tolerance in Arabidopsis. *Plant molecular biology* 89:365-384.

Laboratory Skills

- Gas chromatography – measurements of greenhouse gases (CH₄ and N₂O)
- Molecular Biology Skills
 - RNA and DNA isolation, semi-quantitative RT-PCR and real-time PCR, primer design and cloning
- Protein analysis
 - Expression and purification of various fusion proteins *in vitro*, Western blot analysis, *in vitro* ubiquitination assay, *in vitro* phosphorylation assay
- Protein interaction analysis
 - Yeast Two-hybrid screen and assay, library construction, BiFC assay
- Confocal microscopy analysis
 - Protoplast isolation (rice and Arabidopsis) and transfection
 - Analysis of transient expressed plant in tobacco, rice, Arabidopsis

Software Skills

- Programming and statistics in R and Excel
- Basic knowledge of Matlab, Unix shell, and Perl

Field experience

- Measurements of ecosystem carbon fluxes (LI-6400) and soil respiration (LI-8100)
- Collecting greenhouse gases
- Installing data-logger with soil moisture and temperature probes