

**Name:** Dr. Piyada Juntawong

**Current position:** Lecturer/Researcher

**Work:** Department of Genetics, Faculty of Science,  
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**Education:**

- Ph.D. Genetics, Genomics, and Bioinformatics: 2005 - 2010; University of California, Riverside, USA
- B.Sc. Biology, 1<sup>st</sup> class honor: 1999 – 2003; Mahidol University, Bangkok, Thailand

**Work experience:**

- Post-doctoral scholar: 2011 – 2012; Department of Botany and Plant Sciences; University of California, Riverside, USA
- Course instructor: 2010 – 2011; Frontiers and Techniques in Plant Science, Cold Spring Harbor Laboratory, NY, USA

**Area of Expertise**

Plant Molecular Genetics; Post-Transcriptional Gene Regulation; Genomic Technologies

**Fellowship and Honors:**

- Development and Promotion of Science and Technology Talents Project (Thailand): 1996 - 2003
- Ministry of Science and Technology Ph.D. Scholarship (Thailand): 2005 - 2010

**Research interests:**

My research focuses on utilization of advances in genetic engineering, genomic technology, and bioinformatics to decipher mechanisms of gene regulation that are essential for the response of plants to abiotic stress condition. The long-term goal is to improve crop productivity under global climate change.

**Publications:**

(1) **Juntawong, P.**, Girke, T., Bazin, J., Bailey-Serres, J. (2014) Translational dynamics revealed by genome-wide profiling of ribosome footprints in *Arabidopsis*. *Proc Natl Acad Sci USA* 111 (1): E203-E212, doi:10.1073/pnas.1317811111

(2) **Juntawong, P.**, Sorenson, R., Bailey-Serres, J. (2013) Cold shock protein 1 chaperones mRNAs during translation in *Arabidopsis thaliana*. *Plant J.* 74: 1016–1028. (Recommended in Faculty1000 for a new finding: <http://f1000.com/prime/718017826>)

(3) Moghe, G., Lehti-Shiu, MD., Seddon, AE., Chen, Y., Yin, S., **Juntawong, P.**, Brandizzi, F., Bailey-Serres, J., Shiu, SH. (2013) Characteristics and significance of intergenic polyA RNA transcription in *Arabidopsis thaliana*. *Plant Physiol.* 161:1, 210-224.

(4) Park, S. H., Chung, P. J., **Juntawong, P.**, Bailey-Serres, J., Kim, Y. S., Jung, H., Bang, S. W., Kim, Y. K., Choi, Y. D., Kim, J. K. (2012) Post-transcriptional control of photosynthetic mRNA decay under stress conditions requires 3' and 5' untranslated regions and correlates with differential polysome association in rice. *Plant Physiol.* 159:3, 1111-1124.

(5) **Juntawong, P.**, Bailey-Serres, J. (2012) Dynamic light regulation of translation status in *Arabidopsis thaliana*. *Front Plant Sci.* 3:66.

(6) Mustroph, A., **Juntawong, P.**, Bailey-Serres, J. (2009) Isolation of plant polysomal mRNA by differential centrifugation and ribosome immunopurification methods. *Methods Mol Biol.* 553, 109-126.

(7) Bailey-Serres, J., Sorenson, R., **Juntawong, P.** (2009) Getting the message across: cytoplasmic ribonucleoprotein complexes. *Trends Plant Sci.* 14, 443-453.

#### Teaching experiences:

- Analysis and Applications of Next Generation Sequencing Technology
- Introduction to Bioinformatics
- Bioinformatics
- Bioinformatics for Analysis and Applications
- Intensive Genetics
- Principle of Genetics
- Laboratory in Genetics
- Research Methods in Genetics
- Analysis of Gene Function

#### Fundings:

- 2013-2014: Biochemical characterization of ERF transcription factors from *Jatropha curcas*, A New Researcher Scholarship of CSTS, MOST: Coordinating Center for Thai Government Science and Technology Scholarship Students, National Science and Technology Development Agency
- 2013-2015: Identification and genetic modification of ERF transcription factors for development of water-logging tolerant jatropha, A New Researcher Scholarship (MRG): Thailand Research Funds