Polly Yingshan Hsu

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Education

2007-2013   Ph.D. Plant Biology, University of California, Davis, CA
2004-2006   M.S. Genetics, National Yang-Ming University, Taipei, Taiwan
2000-2004   B.S. Botany, National Taiwan University, Taipei, Taiwan

Research Positions

2018   Assistant Professor. Michigan State University.
2013-2017   Postdoctoral Associate. Duke University. Advisor: Philip Benfey.
2007-2013   Graduate Researcher. University of California, Davis. Advisor: Stacey Harmer.
2006-2007   Research Assistant. National Taiwan University, Taiwan. Advisor: Chun-Neng Wang.
2004-2006   Graduate Researcher. Academia Sinica, Taiwan. Advisor: Yi-Fang Tsay.

Publications

9. **Polly Yingshan Hsu** and Philip N. Benfey. Small but mighty: functional peptides encoded by small ORFs in plants. ***Proteomics***. In press.

8. Jennifer A. Gray, Akiva Shalit-Kaneh, Dalena Nhu Chua, **Polly Yingshan Hsu**, Stacey L. Harmer. (2017) The REVEILLE clock genes inhibit growth of juvenile and adult plants by control of cell size. ***Plant Physiology***. PMID: 28254761.

7. **Polly Yingshan Hsu**, Lorenzo Calviello, Hsin-Yen Larry Wu, Fay-Wei Li, Carl J. Rothfels, Uwe Ohler and Philip N. Benfey. (2016) Super-resolution ribosome profiling reveals unannotated translation events in Arabidopsis. ***Proc. Natl. Acad. Sci. USA.*** PMID: 27791167.

6. **Polly Yingshan Hsu** and Stacey L. Harmer. (2014) Global profiling of the circadian transcriptome using microarrays. ***Methods in Molecular Biology***. PMID: 24792043.

5. **Polly Yingshan Hsu** and Stacey L. Harmer. (2014) Wheels within wheels: the plant circadian system. ***Trends in Plant Science***. PMID: 24373845. **(Top 10 articles in 2014 in TIPS)**

4. **Polly Yingshan Hsu**, Upendra K. Devisetty and Stacey L. Harmer. (2013) Accurate timekeeping is controlled by a cycling activator in Arabidopsis. ***eLife.*** PMID: 23638299.
   (Editors' choice, [Featured in eLife](#), [F1000 Prime Recommended Article](#))

3. **Polly Yingshan Hsu** and Stacey L. Harmer. (2012) Circadian phase has profound effects on differential expression analysis. ***PLoS ONE***. PMID: 23185460.

2. Reetika Rawat, Nozomu Takahashi[*], **Polly Yingshan Hsu**[*], Matthew A. Jones, Jacob Schwartz, Michelle R. Salemi, Brett S. Phinney, and Stacey L. Harmer. (2011) REVEILLE8 and PSEUDO-REPONSE REGULATOR5 form a negative feedback loop within the Arabidopsis circadian clock. ***PLoS Genetics***. PMID: 21483796. [*]contributed equally

1. **Ying-Shan Hsu**, Shiang-Jiun Chen, Chin-Mei Lee, and Ling-Long Kuo-Huang. (2005) Anatomical characteristics of the secondary phloem in branches of *Zelkova serrata* Makino. ***Bot. Bull. Acad. Sin***. 46:143-149.

Honors and Awards

2015-2017	USDA NIFA Postdoctoral Fellowship ($145,668)
2016	Best oral presentation, Post-transcriptional Gene Regulation in Plants, Austin, TX
2015	Plant Proteomics Workshop Travel Award, Madison, WI ($800)
2013	Best oral presentation, Western section of ASPB, Davis, CA ($250)
2012	Asian-Pacific Developmental Biology Conference Travel Fellowship, Taiwan ($500)
2012	Elsie Taylor Stocking Travel Fellowship, UC Davis ($1,200)
2011	Summer Institute in Statistical Genetics, Tuition and Travel Scholarship, Seattle, WA ($1,200)
2009	Elsie Taylor Stocking Research Fellowship, UC Davis ($3,500)
2007-2009	Taiwan Merit Scholarship ($60,000)
2006	Excellent Thesis Award in NYMU, Taiwan
2005	Albert Ly-young Shen Memorial Medical Scholarship, Taiwan
2003	Research Creativity Award/Scholarship, National Science Council, Taiwan ($8,000)
2003	Excellent Poster in R.O.C. Microscope Symposia, Taiwan
2002- 2003	Presidential Award at NTU, Taiwan (Top 5% of the class)

Conference Oral Presentation

2016	Post-transcriptional Gene Regulation in Plants, Austin, TX (***Best oral presentation***)
2016	Gordon Research Seminar, Holderness, NH
2016	Plant and Animal Genome Conference, San Diego, CA
2013	Western section of ASPB, Davis, CA (***Best oral presentation***)
2012	American Society of Plant Biology, Austin, TX
2010	NAIST International Student Workshop, Nara, Japan

Conference Poster Presentation

2017	American Society of Plant Biology, Honolulu, HI
2017	International Conference on Arabidopsis Research, St. Louis, MO
2016	Solanaceae Conference, Davis, CA
2016	Translational Control Meeting, Cold Spring Harbor Laboratory, NY
2016	Gordon Research Conference, Holderness, NH
2015	American Society of Plant Biology, Minneapolis, MN
2015	Plant Proteomics Workshop, Madison, WI
2015	EMBO Protein Synthesis Meeting, Heidelberg, Germany
2012	International Conference on Systems Biology, Toronto, Canada
2012	Asian-Pacific Developmental Biology Conference, Taipei, Taiwan
2012	American Society of Plant Biology, Austin, TX
2005	American Society of Plant Biology, Seattle, WA

Teaching Experience

Winter 2013	Teaching Assistant for MCB160L (Genetics Laboratory), UC Davis
July 2011	Teaching Assistant for Frontiers and Techniques in Plant Science, Cold Spring Harbor Laboratory, NY
Spring 2011	Teaching Assistant for PLB113 (Plant Molecular and Cellular Biology), UC Davis

(Student evaluation: **4.54 out of 5**)

Winter 2009   Teaching Assistant for PLB112 (Plant Growth and Development), UC Davis (Student evaluation: **4.35 out of 5**)

Statistics and Computing Training

2014	Next Generation Data Analysis Workshop, UC Riverside
2013	Computing for Data Analysis, Coursera
2011	Next-Generation Sequencing Analysis Course, UC Davis
2011	Summer Institute in Statistical Genetics (Bayesian Methods for Genetics/ Gene Expression Profiling), Seattle, WA
2010-2013	R club, informal workshop, UC Davis
2010-2011	ECS124, Bioinformatics, UC Davis
	ECS030, Intro. Programming and Problem Solving (C and Unix), UC Davis
	STA108, Regression Analysis, UC Davis
	STA130A, Brief Math Statistics, UC Davis
	STA130B, Brief Math Statistics, UC Davis
2010	Computational Approaches to Analyzing Microarray Data Workshop, BTCI, Madison, WI

Journal Reviewer

Current Biology
Molecular Systems Biology
New Phytologist
The Plant Cell