

## **Jessica Will**

University Georgia-Athens  
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### **EDUCATION**

M.S. Biotechnology University of Wisconsin-Madison, May 2009  
B.S. Natural Science-Bacteriology Option University of Wisconsin-Madison, May 1991

### **RESEARCH EXPERIENCE**

**University Georgia Athens, Microbiology Department, Athens GA 2012-present**  
*Research Professional III*

Principle Investigator: Dr Escalante

Manages daily aspects of the laboratory including supplies, safety, students and analysis of research data. Assist in research design to characterize GCN5 acetyltransferase homologues in *Salmonella enterica*. Mentor to REU student project to study metal binding function of Pocr.

**University Wisconsin Madison, Genetics Department, Madison WI 2006-2012**  
*Assistant Researcher 2009-2012*

Principle Investigator: Dr. Gasch

Provide leadership and direction to daily activities in the laboratory. Supervise staff and communicate research data to fellow scientists. Contributed to a research project to identify the genetic basis for evolution of gene expression differences in yeast. Maintain OSHA compliance for laboratory chemical & biological safety, conduct equipment maintenance & maintain supply budget. Published research that demonstrated balancing selection for aquaporin genes from natural yeast isolates.

*Senior Research Specialist 2006-2012*

Received Professional Development Grant to present research data at International Yeast Meeting, 2008. Contributed laboratory research data to senior scientific staff for publications, one was a Highlighted Paper in Faculty of 1000. Played key role in development of standard laboratory protocols to establish high throughput stress assays for QTL analysis in laboratory

**University Wisconsin Madison, Genetics Department, Madison WI 2000-2006**  
*Senior Research Specialist 2000-2006*

Principle Investigator: Dr. Masson

Directed & organized a project to identify genetic modifiers of *Arabidopsis* root phenotypes in 2,000+ plants. Contributed research data and developed assay's to identify root-waving phenotypes. Mentored 4 Biology students; trained 5 Independent Study students; participated in School to Work Program, Ways of Knowing Biology and STEP program.

**University Wisconsin Madison, Biotechnology Facility, Madison WI 1991-2000**  
*Research Specialist 1991-2000*

Facility Director: Dr. Sandra Austin-Phillips

Applied plant research facility to develop transgenic alfalfa expressing industrial important enzymes. Developed scientific protocols for potato, alfalfa & tobacco transformations. Highly proficient scientist in all aspects of plant tissue culture techniques. Technical assistant for 3 large-scale plant field trials for EPA, including protein measurements of individual field plots over three years.

**Publications**

Chasman D, Ho YH, Berry DB, Nemeč CM, MacGilvray ME, Hose J, Merrill AE, Lee MV, **Will JL**, Coon JJ, Ansari AZ, Craven M, Gasch AP. 2014  
Pathway connectivity and signaling coordination in the yeast stress-activated signaling network. *Mol Syst Biol*. 2014 Nov 19;10:759. doi: 10.15252/msb.20145120.

Lewis JA, Broman AT, **Will J**, Gasch AP. 2014  
Genetic architecture of ethanol-responsive transcriptome variation in *Saccharomyces cerevisiae* strains. *Genetics* 2014 Sep;198(1):369-82. Doi 10.1534

Guan Q, Haroon S, Bravo DG, **Will JL**, Gasch AP.  
Cellular memory of acquired stress resistance in *Saccharomyces cerevisiae*. *Genetics*. 2012 Oct;192(2):495-505

**Will, Jessica L.**, Kim HS, Clarke J, Painter J, Fay JC, and Audrey Gasch. 2010.  
Incipient Balancing Selection through Adaptive Loss of Aquaporins in Natural *Saccharomyces cerevisiae* Populations. *PLoS Genet* 6(4): e1000893.

Alejandro-Osorio, Adriana L., Dana J Huebert, Dominic T Procaro, Megan E Sonntag, Songdet Nillasithanukroh, **Jessica L Will** & Audrey P Gasch. 2009.  
The histone deacetylase Rpd3p is required for transient changes in genomic expression in response to stress. *Genome Biology* 10:R57.

Kvitek, Daniel J., **Jessica L. Will**, and Audrey P. Gasch. 2008.  
Variations in stress sensitivity and genomic expression in diverse *S. cerevisiae* strains. *PLoS Genetics* 4: 10. (Highlighted in Faculty of 1000)

Perrin RM, Wang Y, Yuen CY, **Will J**, Masson PH. 2007.  
WVD2 is a novel microtubule-associated protein in *Arabidopsis thaliana*. *Plant J*.49 (6): 961-71.

Perrin, Robyn M., Li-Sen Young, Narayana Murthy, Benjamin R. Harrison, Yan Wang, **Jessica L. Will**, and Patrick Masson. 2005.  
Gravity Signal Transduction in Primary Roots. *Annals of Botany* 96: 737-743.

Ziegelhoffer, Thomas., **Jessica Will**, & Sandra Austin-Phillips. 1999.  
Expression of bacterial cellulase genes in transgenic alfalfa, potato and tobacco. *Molecular Breeding* 5: 309-318.

## RESEARCH SKILLS

Bacterial, Plant & Yeast Transformation	Histology/Sectioning/Flow cytometry
Restriction digests/ligations	PCR/RT-PCR
NCBI/SGD/TAIR database proficient	DNA Sequencing, Alignment & Analysis
DNASTAR software	Plant Protoplast Isolation
Project Management Skills-MS program	EMS Mutagenesis
Principles of Early Drug Discovery-MS program	Site-directed Mutagenesis
Microarray Printing & Preparation	Plant root growth assays
Tetrad Dissection & yeast mating	Digital Microscopic Imaging
DNA/RNA Isolation	Protocol development/troubleshooting
Plant Tissue Culture & Media Formulation	Plant field trial experience
Northern/Western/Southern Blotting	Biological & Chemical safety procedures

## PROFESSIONAL AFFILIATIONS

Research Gate	2013
UW MS Biotechnology Alumni Association	2009
LinkedIn	2008
Badgers in Biotechnology	2007