

**Daniel B. Szymanski**

Professor, Department of Botany and Plant Pathology, Purdue University  
915 W. State St., West Lafayette IN 47907  
Tel: (765) 494-8092 Fax: (765) 496-4773  
email: [dszymanski@purdue.edu](mailto:dszymanski@purdue.edu)

**A. Professional Preparation**

University of Michigan	Ann Arbor Mi.	B.S.	1989
University of Illinois	Urbana, Ill.	Ph.D.	1995

**B. Academic/Professional Appointments**

2010-present	Full Professor, Purdue University, Department of Botany and Plant Pathology
2009- present	Adjunct Professor, Department of Biological Sciences, Purdue University
2004-2010	Associate Professor, Purdue University, Department of Agronomy
1999-2004	Assistant Professor, Purdue University, Department of Agronomy
1995-1999	Research Associate, University of Minnesota, Genetics and Cell Biology
1990-1995	Research Assistant, University of Illinois, Department of Plant Biology

**C. Relevant Publications**

**Five Publications/Products Most Closely Related to Proposal**

1. Yanagisawa, M., Desyatova, A.S., Belteton, S., Mallery, E. M., Turner, J.A., Szymanski, D. B. **2015** Patterning mechanisms of cytoskeletal and cell wall systems during leaf trichome morphogenesis, *Nature Plant*, *1*, 15014
2. Szymanski, D.B. **2014** The kinematics and mechanics of leaf expansion: new pieces to the Arabidopsis puzzle, *Curr. Opin. Plant Biol.*, *22*:141-148.
3. Zhang, C., Halsey, L., Szymanski, D.B. **2011** The development and geometry of shape change in *Arabidopsis thaliana* cotyledon pavement cells. *BMC Plant Biology* *11*:27.
4. Szymanski, D.B., and Cosgrove, D.J. **2009** Dynamic coordination of cytoskeletal and cell wall systems during plant cell morphogenesis. *Curr. Biol.* *19*, R800-R811
5. Qiu, J.L, Jilk, R., Marks, M.D., Szymanski, D.B. **2002** The Arabidopsis *SPIKE1* gene is required for normal cell shape control and tissue development. *Plant Cell* *14*, 101-118.

**Five Other Significant Publications**

6. Zhang, C., Mallery, E., Reagan, S., Boyko, V.P., Kotchoni, S.O., and Szymanski, D.B. **2013**. The endoplasmic reticulum is a reservoir for WAVE/SCAR regulatory complex signaling in the Arabidopsis leaf. *Plant Physiol* *162*, 689-706.
7. Szymanski, D.B., Marks, M.D., Wick, S.M. **1999** Organized F-actin is essential for normal Arabidopsis trichome morphogenesis. *Plant Cell* *11*: 2331-2347.
8. Basu, D., Le, J., Zakharova, T., Mallery, E.L., Szymanski, D.B. **2008** A SPIKE1 signaling complex controls actin-dependent morphogenesis through the WAVE and ARP2/3 complexes. *Proc. Natl. Acad. Sci. USA* *105*, 4044-4049.

9. Zhang, C., Mallery, E. L., Schlueter, J., Huang, S., Fan, Y., Brankle, S. Staiger, C.J., Szymanski, D.B. **2008** Arabidopsis SCARs function interchangeably to meet ARP2/3-activation thresholds during morphogenesis. *Plant Cell* 20, 995-1011.
10. Basu, D., Le, J., El-Essal, S.E., Huang, S., Mallery, E., Koliantz, G., Staiger C.J., Szymanski, D.B. **2005** DISTORTED3/SCAR2 is a Putative Arabidopsis WAVE Complex Subunit that Activates Arp2/3 Complex and is Required for Epidermal Morphogenesis *Plant Cell* **17**, 502-524.

#### **D. Synergistic Activities**

- Director, Purdue University Life Sciences Graduate Program; Key committee memberships: Core curriculum for the Plant Sciences; Chair: Integrative Plant Sciences Graduate Program, 2008-2011 and Grad.Mentoring Best Practices co-author 2013.
- Instruction: Introductory Genetics, AGRY 320, Course Director: Genetic Laboratory AGRY 321, Lab Book published with Dr. Gregore Koliantz. *Cell Biology of Plants AGRY/BIOL 808*, *Responsible Conduct in Research GRAD 602*.
- Science Review; Panel review member NSF, 2009-2012, 2014, NASA 2013,2014, Editorial board: *Plant Physiology*, *Frontiers in Plant Cell Biology*.
- Plenary speaker and organizer National and International Meetings: 2006, 2008, 2012 *Plant and Fungal Cytoskeleton Gordon conference*, ASPB 2002, Arabidopsis International Conference for Arabidopsis Research, 2003, 2004. Co-organizer, Midwest Plant Cell Dynamics Meeting, Madison, Wi. , co-Organizer, 2012-2015.
- Purdue College of Agriculture Research Award, 2008: From protein machines to practical applications: basic research in model and agricultural species.