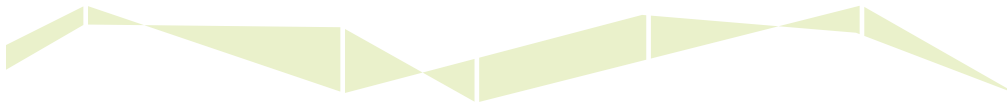


# Stephanie Nowotarski



## EDUCATION

University of North Carolina at Chapel Hill | Ph.D, Biology **2014**  
Cedar Crest College | B.S., Genetic Engineering & Chemistry minor **2006**

## RESEARCH RECORD

**HHMI Postdoctoral Associate** | *The Stowers Institute- Kansas City, MO* **2015-present**  
Laboratory of Dr. Alejandro Sanchez Alvarado - Understanding the homeostatic sliding-scale anatomy of *Schmidtea mediterranea* via large scale, high resolution electron microscopy.

**Ph.D Student** | *University of North Carolina - Chapel Hill, NC* **2007-2014**  
Laboratory of Dr. Mark Peifer - Roles and interactions of Enabled, Diaphanous, and Capping Protein in regulation of actin structures in *Drosophila* development.

**Physiology Course** | *Woods Hole Marine Biological Laboratory - Woods Hole, MA* **2010**  
· Dr. James Nelson and Dr. KengHui Lin - New models for 3D cell culture  
· Dr. Alexy Khodjakov - Regulation of centriole disengagement  
· Dr. R.Dyche Mullins- Molecular basis for VASP Actin barbed end polymerase activity

**Ph.D Student Lab Rotations** | *University of North Carolina, Chapel Hill - NC* **2006**  
· Dr. Kerry Bloom - Spatial and temporal regulation of securin and separase in sister chromatid separation in *S. cerevisiae*  
· Dr. Mark Peifer - Role of Canoe in morphogenetic processes in *Drosophila*  
· Dr. Robert Duronio - An alternate role of Lsm11 outside the U7RNP in *Drosophila*

**Undergraduate Research Assistant** | *Cedar Crest College - Allentown, PA* **2003-2006**  
Laboratory of Dr. Cristen Rosch - AC115 chloroplast gene characterization and microtubule associated proteins in *Chlamydomonas*.

**Undergraduate Research Intern** | *Cedar Crest College - Allentown, PA* **Summer 2004**  
Laboratory of Dr. Richard Kliman - Codon bias across *Drosophila* species.

## PUBLICATIONS

Rogers E.M., Spracklen A., Bilancia C.G., Sumigray K.D., Allred S.C., **Nowotarski S.H.**, Ritchie B.J., Peifer M. Abelson kinase does not require kinase activity or its F-actin binding domain to regulate embryonic morphogenesis. *In preparation* .

**Nowotarski, S.H.**, McKeon, N., Moser, R.J., and Peifer M (2014) The actin regulators Enabled and Diaphanous direct distinct protrusive behaviors in different tissues during *Drosophila* development. *Molecular Biology of the Cell*. 25(20): 3147-3165. PMID:25143400

Kannan, R., Kuzina, I., Wincovitch, S., **Nowotarski, S.H.**, and Giniger, E (2014) The Abl/Enabled signaling pathway regulates Golgi architecture in *Drosophila* photoreceptor neurons. *Molecular Biology of the Cell*, 25(19): 2993-3005. PMID: 25103244

**Nowotarski, S.H.**, and Peifer M. (2014) Cell Biology: a tense but good day for actin at cell-cell junctions. *Current Biology* 24(15):R688-90. PMID:25093559

Bilancia CG, Winkelman JD, Tsygankov D, **Nowotarski S.H.**, Sees JA, Comber K, Evans I, Lakhani V, Wood W, Elston TC, Kovar DR, Peifer M. (2014) Enabled negatively regulates diaphanous-driven dynamics in vitro and in vivo. *Developmental Cell*. 28(4):394-408. PMID:24576424

**Nowotarski, S.H.** and Peifer, M., Cell Picture Show "Wrapping Up the Embryo". [www.cell.com/cell\\_picture\\_show-cellmotility](http://www.cell.com/cell_picture_show-cellmotility)

## CONTACT

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## PERSONAL STATEMENT

I am a postdoctoral researcher in Dr. Alejandro Sanchez Alvarado's laboratory. My primary interest is sliding scale organizational relationships within the animal body plan. Specifically, I am working on a high resolution, 3D electron microscopy dataset of a whole planaria in order to better understand the homeostatic organization and anatomy of these animals. The resulting baseline anatomy of these animals is integral to understanding the molecular and cellular underpinnings of their remarkable ability to regenerate.

# Stephanie Nowotarski



J-Y. Lin, W.J. Lin, W.-H. Hong, W.-C. Hung, **Nowotarski S.H.**, S. Montenegro Gouveia, I. Cristo and K.-H. Lin (2011) Morphology and organization of tissue cells in 3D microenvironment of monodisperse foam scaffolds. *Soft Matter*, 2011 7:10010-10016.

Gates J, **Nowotarski S.H.**, Yin H, Mahaffey JP, Bridges T, Herrera C, Homem CC, Janody F, Montell DJ, Peifer M. (2009) Enabled and Capping protein play important roles in shaping cell behavior during *Drosophila* oogenesis. *Developmental Biology*, Sep 1;333(1):90-107.

Stevens T.L., Rogers E.M., Koontz L.M., Fox D.T., Homem C.C.F., **Nowotarski S.H.**, Artabazon N.B., Peifer M. Using Bcr-Abl to Examine Mechanisms by Which Abl Kinase Regulates Morphogenesis in *Drosophila*. *Molecular Biology of the Cell* 2008 378 (19): 378-393.

## PRIMARY PRESENTATIONS

**2012 ASCB Meeting, San Francisco** | *Poster Presentation*

**Nowotarski S.H.**, Bilancia C, Peifer M. *Drosophila* dorsal closure as a model for actin regulation

**2011 Drosophila Research Conference - San Diego, CA** | *Poster Presentation*

**Nowotarski S.H.**, Guerin C., Gates J., Peifer M. Enabled and Diaphanous mediated regulation of the actin cytoskeleton in *Drosophila* development.

**2009 ASCB Meeting - San Diego, CA** | *Poster Presentation*

Nowotarski S.H., Banerjee R., Gates J., Peifer M. Roles of Ena/VASP and Capping Protein in *Drosophila* development.

**2008 Drosophila Research Conference - San Diego, CA** | *Poster Presentation*

Nowotarski S.H., Gates J., Peifer M. Enabled and Capping Protein Regulation of the Actin Cytoskeleton in *Drosophila* Development.

## SECONDARY PRESENTATIONS

**2012 ASCB Meeting - San Francisco, CA** | *Talk*

Bilancia C.G., Winkleman J.D., **Nowotarski S.H.**, Tsygankov D., Sees J.A., Elston T., Kovar D.R., Peifer M. Enabled negatively regulates Diaphanous-driven actin dynamics.

**2012 ASCB Meeting - San Francisco, CA** | *Poster*

Kotlyanskaya, L., **Nowotarski S.H.**, Peifer M., Giniger E. Enabled antagonizes actin Capping Protein function to regulate growth of motor nerves in the *Drosophila* embryo.

**2011 ASCB Meeting - Philadelphia, PA** | *Poster*

Hansen, S.D., Weaver L.N., **Nowotarski S.H.**, Manor U., Mullins R. Molecular Basis for VASP Actin Barbed End Polymerase Activity.

## FELLOWSHIPS + AWARDS

### Graduate Fellowship

Cell and Molecular Biology Training Grant UNC-CH, 2008-2009

### ASCB Cell Dance

First Place, 2012

### Olympus Bioscapes

Honorable Mention, 2012