# Rebecca J Androwski

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**Research Interests**

* Stress and environmental effects on neuronal plasticity
* Dendrite morphology throughout development

**Education**

* Ph.D. Graduate Student 2014-Present

Neuroscience Program

University of Illinois at Urbana-Champaign

Advisor: Dr. Nathan Schroeder

* B.F.A. Degree in Visual Art and Genetics 2013

Rutgers, The State University of New Jersey, New Brunswick, NJ

Concentration in Photography

**Research Experience**

* Graduate Student, Dr. Nathan Schroeder 2014-Present
* Lab Manager, Dr. Maureen Barr 2011-2014
* Undergraduate Research Assistant, Dr. Maureen Barr 2009-2011

**Teaching Experience**

* Neur 542, Interdisciplinary Approaches to Neuroscience I.
  + Guest lecture on dendrite morphology. Spring 2018.
* PRECS, Phenotypic Plasticity Research Experience for Community College Students.
  + Teaching Assistant, Summer 2017

**Publications**

* **Rebecca J. Androwski**, Kristen M. Flatt, Nathan E. Schroeder. 2017. Phenotypic plasticity and remodeling in the stress-induced *C. elegans* dauer. WIREs Developmental Biology. Review Article.
* Juan Wang, Rachel Kaletsky, Malan Silva, April Williams, Leonard A. Haas, **Rebecca J. Androwski**, Jessica N. Landis, Cory Patrick, Alina Rashid, Dianaliz Santiago-Martinez, Maria Gravato-Nobre, Jonathan Hodgkin, David H. Hall, Coleen T. Murphy, Maureen M. Barr. 2015. Cell-Specific Transcriptional Profiling of Ciliated Sensory Neurons Reveals Regulators of Behavior and Extracellular Vesicle Biogenesis. Current Biology. 25(24):3232-38.
* Schroeder NE, **Androwski RJ**, Rashid A, Lee H, Lee J, Barr MM. 2013. Dauer-specific dendrite arborization in *C. elegans* is regulated by KPC-1/Furin. Current Biology. 23(16):1527-35.

[Selected as cover and Dispatch, recommended by Faculty of 1000]

**Abstracts and Presentations**

* **Rebecca J Androwski**, Janet Goelzer, Cassandra Smith, Nathan E Schroeder. 2018. Dendrite morphology under well-fed and starvation conditions: A comparison between FLP and IL2 arbors. *C. elegans* Neuroscience Topical Meeting. Madison, WI.
* **Rebecca J Androwski**, Janet Goelzer, Cassandra Smith, Nathan E Schroeder. 2018. Dendrite morphology under well-fed and starvation conditions: A comparison between FLP and IL2 arbors. Chicago Area Worm Meeting. Chicago, IL.
* **Rebecca J Androwski**, Janet Goelzer, Nathan E Schroeder. 2016. Neuronal Morphology in Stress Related Pathways. Aging, Metabolism, Pathogenesis, Stress, and Small RNAs in *C. elegans*. Madison, WI.
* **Rebecca J Androwski**, Kristen Flatt, Nathan E Schroeder. 2015. Role of autophagy in IL2 dendritic arbors during dauer formation and recovery. International *C. elegans* Meeting, Los Angeles CA.
* Bradly Alicea, **Rebecca J Androwski**, Nathan E Schroeder. 2015. A Preconditioning-Drift-Selection Model of *C. elegans* Adaptability. International *C. elegans* Meeting, Los Angeles CA.
* **Androwski RJ**, Rashid A, Schroeder NE, Barr MM. 2014. Dendritic Arborization in Dauer IL2 Neurons: Role of Surrounding Tissue and Post-Dauer Branch Recovery. *C. elegans* Neurobiology Meeting. Madison, WI.
* Rashid A, **Androwski RJ**, Schroeder NE, Wang J, Haas L, Barr MM. 2014. Branching out: Determining the function of IL2 neurons in *C. elegans* dauer and non-dauer animals. *C. elegans* Neurobiology Meeting. Madison, WI.
* **Androwski RJ**, Rashid A, Ritter T, Schroeder NE, Barr MM. 2013. Dendritic arborization in dauer IL2 neurons: Genetic and bioinformatic analyses. International *C. elegans* Meeting, Los Angeles CA
* Schroeder NE, **Androwski RJ**, Rashid A, Lee H, Lee J, Barr MM. 2013. Dauer-specific dendrite arborization in *C. elegans* is regulated by KPC-1/Furin. International *C. elegans* Conference, Los Angeles, CA
* Rashid A, **Androwski RJ**, Schroeder NE, Barr MM. 2013. Cutting Edge: Expression and function of KPC-1/furin in *C. elegans*. International *C. elegans* Conference, Los Angeles, CA
* **Androwski RJ**, Rashid A, Schroeder NE, Barr MM. 2012.Rapid and reversible dendritic branching in the dauer stage of *C. elegans*. Waksman Institute Annual Retreat, Rutgers University, Piscataway, NJ
* Schroeder NE, **Androwski RJ**, Barr MM. 2011. Rapid and reversible arborization of IL2 neurons during dauer development. International *C. elegans* Meeting, Los Angeles CA

**Cover Designs**

* Barr MM. 2014. Cellular and molecular control of mating in *C. elegans* & Hedgehog signaling. Seminars in Cell & Developmental Biology.

**Professional Associations**

* Genetics Society of America 2011-2016

**Qualifications**

* In-depth knowledge of *Caenorhabditis elegans* biology and neuroanatomy
* Microscopy: Confocal, Differential Interference Contrast, Fluorescence, Compound Light
* General Lab Techniques: Experiment design and implementation for independent and collaborative research projects, bacterial culture, microinjection, preparation of media and growth of electro-competent cells
* Molecular Biology: PCR, Gibson Assembly
* Experience in bioinformatics and experiment design
* Experience with scientific writing: reviewing and contributing to research manuscripts, poster, figure and cover design
* Multitasking and management: acting lab manager while conducting multiple research projects

**Mentees**

* Ali Hofer. University of Illinois Post-Bachelor 2018-present
* Cassandra Smith. PRECS Participant Summer 2017
* Michael Cunningham. University of Illinois Undergrad 2016
* Janet Goelzer. Parkland College Student 2015-2017