

# NOELLE JAMES

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701 W. Vermont Ave. ◊ Urbana, IL 61801  
(217) 979-1470 ◊ nholmes3@illinois.edu

## EDUCATION

**University of Illinois at Urbana–Champaign**  
PhD in Neuroscience  
Dissertation supervisor: Dr. Alison M. Bell

Expected 2019

**Washington University in St. Louis**  
B.A. in Psychology

May 2008

## GRANTS, FELLOWSHIPS, AND AWARDS

- Neuroscience Scholars Program Professional Development Award, Society for Neuroscience 2018
- 1<sup>st</sup> Place Graduate Oral Presentation in Biological Sciences at the 2018 ERN Conference 2018
- AAAS travel award for the 2018 Emerging Researchers National (ERN) Conference in STEM 2017
- SocioGenomics RCN Lab Exchange Award 2015
- American Genetic Association Travel Award 2015
- Anderson Neuroscience Program Fellowship 2014–2015
- Girl Scout Gold Award 2001

## PUBLICATIONS

Bukhari, S. A., Saul, M. C., Seward, C. H., Zhang, H., Bensky, M., **James, N. P.**, Zhao, S. D., Chandrasekaran, S., Stubbs, L., & Bell, A. M. (2017). Temporal dynamics of neurogenomic plasticity in response to social interactions in male threespine sticklebacks. *PLoS Genetics*, 13(7):e10006840.

**James, N. P.**, Lu, X., & Bell, A. M. (2016). A fluorescence in situ hybridization (FISH) protocol for stickleback tissue. *Evolutionary Ecology Research*, 17(4), 603–617.

Forsthoefel, D. J., **James, N. P.**, Escobar, D. J., Stary, J. M., Vieira, A. P., Waters, F. A., & Newmark, P. A. (2012). An RNAi screen reveals intestinal regulators of branching morphogenesis, differentiation, and stem cell proliferation in planarians. *Developmental Cell*, 23(4), 691–704.

## POSTERS & TALKS

**James, N. P.**, & Bell, A. M. Fishing for genetic effects on social behavior: Viral-mediated transgenesis in stickleback fish. Oral presentation at 2018 Emerging Researchers National (ERN) Conference in STEM, Washington D.C, February 2018. Won 1<sup>st</sup> Place Graduate Oral Presentation in Biological Sciences

**James, N. P.**, & Bell, A. M. Initial Mapping of the Behavior-Brain Landscape in Threespine stickleback. Poster presented at 8th International Conference on Stickleback Behavior and Evolution, Stony Brook, NY, July 2015.

Forsthoefel, D., **James, N.**, Escobar, D., Stary, J., Vieira, A., Waters, F., & Newmark, P. A. The planarian intestine: A model for stem-cell-driven organ regeneration. Talk by DF at North American Planarian Meeting. Kansas City, MO, May 2013.

Roberts-Galbraith, R. H., **James, N. P.**, & Newmark, P. A. Identification of factors critical for planarian nervous system regeneration. Talk by RRG at American Society for Cell Biology Annual Meeting, December 2012.

Forsthoefel, D., James, N., Waters, F., Park, A., Escobar, D., Stary, J., & Newmark, P. A. Intestinal renewal and regeneration in the planarian *Schmidtea mediterranea*. Talk by DF at EMBO Conference Series: Molecular and Cellular Basis of Regeneration & Tissue Repair. Sesimbra, Portugal, September 2010.

## PROFESSIONAL EXPERIENCE

### University of Illinois at Urbana–Champaign

August 2014–present

Graduate Student

Dr. Alison M. Bell

- ChIP-Seq and RNA-Seq on *G. aculeatus* for Simons project ‘Molecular Roots of the Social Brain’
- Viral-mediated transgenesis, CLARITY and fluorescent in situ protocol development
- Localized gene expression differences between aggressive and non-aggressive individuals following territorial defense
- Adult neurogenesis induced by territorial defense
- Additional Techniques: BrdU intraperitoneal injections, CRISPR knockdown, qPCR, brain injections

### Howard Hughes Medical Institute

February 2008–August 2014

Research Technician II

Dr. Phillip A. Newmark at University of Illinois at Urbana–Champaign

- Genetic screen of differentially expressed genes in the central nervous system of *S. mediterranea*
- RNAi knockdown screen of differentially expressed genes in the intestine of *S. mediterranea*
- Creation, development and maintenance of laboratory inventory database
- Lab computer support including building a workstation for an LSM 710 confocal microscope
- Maintenance of ultra-pure water purification system

### Washington University in St. Louis

2004–2005

Computer Technician

Residential Technology Services

- Configuration of Cisco network switches
- Top-tier computer support including hardware diagnostics and infection removal

### Washington University in St. Louis

Summers 2003 & 2004

Research Assistant

Dr. David Sibley

- Survey and comparison of SNPs between *Toxoplasma gondii* lineages

### Washington University in St. Louis

Summer 2002

HHMI Prefreshman Research Scholar

Dr. Sarah Elgin

- Independent analysis of heterochromatin protein 1 and heterochromatin protein 2 in *Drosophila melanogaster* via polytene chromosome squashes

### Princeton University

Summer 2001

Laboratory Assistant

Dr. Suzanne Staggs

- Developing freshman astrophysics course for non-physics majors at Princeton University
- Creating lab webpage for PIQU Experiment

### University of Wisconsin–Madison

Summer 2000

NASA SHARP Plus High School Apprenticeship

Drs. Fran Fogerty & Dean Mosher

- Genetic survey for downstream leukemia suppressors and enhancers in the *Drosophila* model system via test crossing

## TEACHING EXPERIENCE

**University of Illinois at Urbana–Champaign** 2016-2017  
*Teaching Assistant* College of Liberal Arts & Sciences

- MCB 150: Molecular and Cellular Basis of Life Spring 2017  
Instructor rating: Excellent
- IB 150: Organismal Biology Fall 2016

**Washington University in St. Louis** 2004-2005  
*Professional Development Instructor* Student Technology and Resource Support

- Course: Advanced Virus, Trojan, and Bot Removal
- Course: Windows Network Setup and Troubleshooting

**Crim Elementary School** 2001  
*Certified Continuing Education Instructor* Bridgewater-Raritan Regional School District

- Course: Supplemental Science Instruction for Teachers; 6 weeks
- Certification by Franklin Institute through National Science Partnership

## PROFESSIONAL MEMBERSHIPS

Society for Neuroscience 2017-2018  
J.B. Johnston Club 2015

## SERVICE AND OUTREACH

**Girls Go For It DREAM Big Panel** 2017  
*Panelist* Carrie Busey Elementary School

**Image of Research** 2017  
*Finalist* University of Illinois at Urbana–Champaign

**Eye to Eye** 2016-present  
*Mentor* Urbana Middle School & Franklin Middle School

- Eye to Eye focuses on strengthening essential social-emotional skills of children labeled with ADHD or language, reading, & math based learning disabilities

**Art of Science 6.0** 2016  
*Contributing Scientist* Carl R. Woese Institute for Genomic Biology

**Mentor Matching Engine** 2015–present  
*STEM Mentor* Illinois Science & Technology Institute

- MME connects Illinois high school students and their teachers to STEM professionals who serve as online mentors to student-led research
- 2017-2018 Project: Reality Television and Race Relations
- 2017 Project: Bipolar disorder and schizophrenia
- 2015-2016 Project: Drosophila Preference Between Natural and Artificial Sugars

- Undergraduate Research Mentorship** 2014–present  
*Graduate Mentor* University of Illinois at Urbana–Champaign
- Rachael Kirchschlager 2018-present
  - Severin Odland, Natural Resources and Environmental Sciences and Psychology 2017-present
  - Erika Carlson, Integrative Biology Honors 2017-2018  
 Integrative Biology Distinction Award  
 High Distinction Project: Measurements of Territorial Aggression in Male Stickleback
  - Megan Furukawa, Undeclared 2017
  - Shuyang (Sigrid) Jin, Integrative Biology 2016-2017  
 Neurobiology Graduate student at Duke University
  - Joseph Dobbins, Integrative Biology Honors 2014-2018  
 Independent Project: Territorial size under the risks of Predation
  - Kelly Hynes, Integrative Biology 2015-2016
  - Andrew Gensburg, Pre-Med Molecular and Cellular Biology 2015-2016
  - Leslie Pardo, Psychology 2015-2016
  - Ali Norwood, Molecular and Cellular Biology 2014-2015  
 Graduate student at University of Wisconsin-Madison
- ConvoPartner** 2011–2012  
*American Culture Volunteer* Intensive English Institute
- Junior Scientist Day** 2009–2011  
*Demonstrator* Yankee Ridge Elementary School
- Interdisciplinary Semester Workshop in an Urban School Setting** 2005  
*Teaching Volunteer* Adams Elementary School
- Seven weeks of biology after-school enrichment for 3<sup>rd</sup>–5<sup>th</sup> grade students
  - Additionally obtained private grant and installed observational fish tank
- LeaderShape Institute** 2003  
*Participant* Washington University in St. Louis
- Engineering Council** 2002-2003  
*Board Member, 'Cheap Lunch' Chairperson* Washington University in St. Louis
- Organized a weekly community forum for engineering students and faculty
- Interactive Science Discovery Room** 2001  
*Girl Scout Gold Award Project* Crim Elementary School
- Designed 47 curriculum-based experiments, 23 in ready-to-use state for up to 100 students
  - Authored integrated manual to assist teachers in selecting and teaching experiments
  - Sourced scientific equipment donations from local high schools