

Lathiena A. Manning

Mark Peifer Laboratory
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CURRENT POSITION

Postdoctoral Fellow, Lab of Mark Peifer, PhD
University of North Carolina at Chapel Hill
Department of Biology

June 2015- July 2019

EDUCATION

University of Maryland Baltimore County (UMBC)
Ph.D., Developmental Biology

Baltimore, MD
May 2015

Bowie State University
B.S., Biological Sciences

Bowie, MD
May 2004

RESEARCH EXPERIENCE

Postdoctoral Fellow
University of North Carolina at Chapel Hill

Postdoctoral research advisor: Dr. Mark Peifer
The scaffold protein Canoe and ZO1/Polychaetoid help link cell adhesion and the actomyosin cytoskeleton during tissue formation

Chapel Hill, NC
June 2015-Present

Doctoral Research
University of Maryland Baltimore County (UMBC)

Graduate research advisor: Dr. Michelle Starz-Gaiano
Establishing the influence of tissue architecture on cell fate decisions and cell migration dynamics in *Drosophila* egg development

Baltimore, MD
Jan 2009- May 2015

PUBLICATIONS

LA.Manning, KZ Perez-Vale, KN Schaefer, MT Sewell, M. Peifer. The *Drosophila* Afadin and ZO-1 homologs Canoe and Polychaetoid act in parallel to maintain epithelial integrity when challenged by adherens junction remodeling. *Mol Biol Cell*. **2019** Jul 22;30(16):1938-1960. doi: 10.1091/mbc.E19-04-0209. Epub 2019 Jun 12.

LA.Manning, J. Sheth, S. Bridges, A. Saadin, K. Odinammadu, D. Andrew D, S. Spencer, D. Montell, M. Starz-Gaiano. A hormonal cue promotes timely follicle cell migration by modulating transcription profiles. *Mech Dev*. **2017** Jun 10. pii: S0925-4773(17)30020-5. doi: 10.1016/j.mod.2017.06.003.

LA. Manning and M. Starz-Gaiano. Upright Imaging of *Drosophila* Egg Chambers. *J Vis Exp*. **2015** Mar 13;(97). doi: 10.3791/52636.

LA. Manning, AM .Weideman, B. Moiz, B. Peercy and M. Starz-Gaiano. Tissue landscape alters adjacent cell fates during *Drosophila* egg development. *Nat Commun*. **2015** Jun 17;6:7356. doi: 10.1038/ncomms8356

LA. Manning and M. Starz-Gaiano. Culturing *Drosophila* Egg Chambers and Investigating Developmental Processes through Live Imaging. *Methods Mol Biol*. **2015**;1328:73-88. doi: 10.1007/978-1-4939-2851-4_5

DP. Stonko, **LA. Manning**, M. Starz-Gaiano, B. Peercy. A mathematical model of collective cell migration in a three-dimensional, heterogenous environment. PLoS One. **2015** Apr 13;10(4):e0122799. doi: 10.1371/journal.pone.0122799. eCollection 2015

FELLOWSHIPS

NIH Seeding Postdoctoral Innovators in Research and Education (SPIRE) Fellowship August 2015-Present
- Institutional Research and Academic Career Development Awards (IRACDA)

Graduate Assistants in Areas of National Need (GAANN) Fellowship August 2013- May 2015

IMSD Meyerhoff Graduate Fellowship June 2008-August 2013

TEACHING EXPERIENCE

NORTH CAROLINA CENTRAL UNIVERSITY

Instructor of Record

Course: Molecular Biology of the Cell (BIOL 2200)

Summary: Designed material (lectures, guided reading questions, handouts, and exams).

Topics covered a range from basic biochemistry and molecular biology to advance understanding of cellular events such as transcription and translation

Durham, NC
Fall 2017

Instructor of Record

Course: Introduction to Biology (BIOL 1202)

Summary: Designed material (lectures, guided reading questions, handouts, and exams).

Topics covered basic chemistry, biomolecular structure and function, cellular reproduction, photosynthesis, cellular respiration, transcription and translation.

Spring 2017

UNIVERSITY OF MARYLAND BALTIMORE COUNTY (UMBC)

Teaching assistant

Course: Developmental Biology Laboratory (BIOL 340L)- **2 Semesters**

Summary: Assist professor with supervision of laboratory projects. Led weekly laboratory introduction lectures and lectured on Drosophila oogenesis.

Mentored a group of four undergraduate students on an independent research project on cell adhesion's role in collective cell migration

Baltimore, MD
Spring 2014
Spring 2013

Teaching assistant

Course: Cell Biology Lecture (BIOL 303)- **3 Semesters**

Summary: Designed weekly quizzes and problem sets for the discussion section of the lecture course. Led review sessions for each lecture exam.

Teaching assistant

Course: Developmental Biology Lecture (BIOL 442)

Summary: Designed weekly quizzes and problems set for the discussion section of the lecture course. Led review session for each lecture exam

Spring 2015
Fall 2014
Fall 2013

Teaching assistant

Course: Molecular and General Genetics Laboratory (BIOL 303L)

Summary: Led weekly laboratory sections and lectured on the background information necessary to complete procedure. Created weekly quizzes.

Fall 2012

Teaching assistant

Course: Cell Biology Laboratory (BIOL 302L)

Summary: Led weekly laboratory sections and lectured on the background information necessary to complete laboratory procedure. Created weekly quizzes.

Spring 2010
Fall 2009

BOWIE STATE UNIVERSITY**Instructor on Record****Course:** Introduction to Biology (BIOL 102)**Summary:** Taught and planned all lessons of Biology topics for the Science Engineering and Mathematics (SEM) Summer Academy. The SEM Summer Academy program is tailored to increasing retention of minority students majoring in STEM fields**Bowie, MD**

Summer 2005

ST. ELIZABETH HIGH SCHOOL**Teacher****Course:** Sophomore Biology**Summary:** Taught and planned all lessons of Biology topics for 10th grade students using interactive lessons and activities. Utilized many student-centered learning techniques, including demonstrations, molecular model building, and weekly discovery labs. Designed semester long research projects to connect biological concepts learned in class to human disease.**Wilmington, DE**

AY 2004-2005

CONFERENCE AND PLATFORM PRESENTATIONS

Manning, L.A., Ronk, H., Peifer, M., *The scaffold protein Canoe and ZO1/Polychaetoid help link cell adhesion and the actomyosin cytoskeleton during tissue formation.* 59th Annual Drosophila Research Conference, Philadelphia PA, *April 2018*

Manning, L.A., Weidman, A.M., Moiz, B., Peercy, B., Starz-Gaiano, M. *Asymmetric response to a morphogen specifying motile cells in Drosophila.* American Society for Cell Biology Annual Meeting, New Orleans LA, *December 2013*

POSTER PRESENTATIONS

Manning, L.A., Ronk, H., Sewell, M., Peifer, M., *The scaffold protein Canoe and ZO1/Polychaetoid work together to ensure tissue integrity during tissue formation.* 2018 IRACDA Conference, Atlanta GA, *July 2018*

Manning, L.A., Ronk, H., Sewell, M., Peifer, M., *The scaffold proteins Canoe and ZO1/Polychaetoid help link cell adhesion and the actomyosin cytoskeleton during tissue formation.* 2018 Triangle Fly Symposium. Durham NC, *May 2018*

Manning, L.A., Ronk, H., Peifer, M., *The scaffold protein Canoe and ZO1/Polychaetoid help link cell adhesion and the actomyosin cytoskeleton during tissue formation.* Gordon Research Conference and Seminar: Cell Contact and Adhesion. Andover NH, *July 2017*

Manning, L.A., Ronk, H., Peifer, M., *The scaffold protein Canoe and ZO1/Polychaetoid help link cell adhesions and the actomyosin cytoskeleton during tissue formation.* 2017 IRACDA Conference, Birmingham AL, *June 2017*

Manning, L.A., Sewell, M., Peifer, M., *The scaffold protein Canoe and ZO1 protein Polychaetoid help link cell adhesion and the actomyosin cytoskeleton during tissue formation.* Lineberger Comprehensive Cancer Center Postdoc-Faculty Research Day, Chapel Hill NC, *October 2016*

Manning, L.A., Sewell, M., Peifer, M., *The scaffold protein Canoe and ZO1 protein Polychaetoid help link cell adhesion and the actomyosin cytoskeleton during tissue formation.* 2017 Triangle Cytoskeletal Meeting, Hillsborough NC, *September 2016*

Manning, L.A., Sewell, M., Peifer, M., The scaffold protein Canoe and ZO1 protein Polychaetoid mediate cell adhesion and the actomyosin cytoskeleton linkage during tissue formation. 2016 IRACDA Conference, Tucson AZ, *August 2016*

Manning , L.A., Starz-Gaiano, M. *Spatial activation of cell motility in Drosophila oogenesis.* 2013 Mid-Atlantic Society for Developmental Biology Annual Meeting, Williamsburg VA, *April 2013*

Manning , L.A., Starz-Gaiano, M. *A novel calcyphosine-like protein facilitates border cell migration during oogenesis.* 54th Annual Drosophila Research Conference, Washington DC, *April 2013.* 2013 Graduate Association of Biological Sciences Symposium, Baltimore MD, *March 2013*

Manning , L.A., Starz-Gaiano, M. *Characterization of a calcyphosine-like protein required for proper border cell migration during oogenesis.* 53rd Annual Drosophila Research Conference, Chicago IL, *March 2012.* 2012 Graduate Association of Biological Sciences Symposium, Baltimore MD, *March 2012*

UNDERGRADUATE AND POST-BACCALAUREATE STUDENTS MENTORED

Halle Ronk

Undergraduate Student- UNC at Chapel Hill

Fall 2016- Present

Project: The scaffold protein Canoe and ZO1/Polychaetoid help link cell adhesions and the actomyosin cytoskeleton during tissue formation

Mycah Sewell

Post-baccalaureate Student- UNC at Chapel Hill

AY 2015-2015

Project: The scaffold protein Canoe and ZO1 protein Polychaetoid mediate cell adhesion and the actomyosin cytoskeleton linkage during tissue formation

Bilal Moiz

Undergraduate student- UMBC

AY 2014-2015

Project: Asymmetric specification of motile cells in Drosophila oogenesis

Yvonne Pupilampu-Dove

Undergraduate Student: University of Maryland Eastern Shore

Summer 2011

Project: Characterization of the Role Of A Novel Gene In Drosophila Oogenesis

PROFESSIONAL AFFILIATIONS

American Society for Cell Biology (ASCB)

Society of Developmental Biology (SDB)

Genetics Society of America (GSA)

PROFESSIONAL DEVELOPMENT COURSES

Course-based Undergraduate Research Experience (CUREnet) Institute

Summer 2018

Summary: CUREnet Institute is a week-long immersive course with the objective to aid undergraduate instructors in the design and teaching techniques of CUREs and for evaluators and researchers to study the effectiveness of CUREs with increased rigor and sophistication.

Seminar on College Teaching

Fall 2016

Summary: Semester long course to prepare post-doctoral fellows for teaching careers in higher education to help them understand the roles and responsibilities of faculty members in an academic environment. Course goals: design and teach courses that emphasize critical thinking and higher order learning; evaluate student learning using methods that are valid and reliable; gather and use information from students and peers to improve teaching; balance the competing responsibilities of an academic career to successfully achieve tenure.