

## **VICKI P. LOSICK, Ph.D.**

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### **EDUCATION AND PROFESSIONAL EXPERIENCE**

**Assistant Professor**, Biology Department, Boston College, Chestnut Hill, MA.  
September, 2019- present

**Assistant Professor**, Kathryn W. Davis Center for Regenerative Biology & Medicine,  
MDI Biological Laboratory, Bar Harbor, ME.

**Adjunct Assistant Professor**, Graduate School of Biomedical Science & Engineering,  
University of Maine, Orono, ME.

January, 2016- July, 2019.

**Postdoctoral Fellow/ Research Associate**, Jane Coffin Childs Postdoctoral fellow in  
Allan Spradling's laboratory at the Carnegie Institution for Science, Department of  
Embryology, Baltimore, MD.

September, 2008- December, 2015.

**Ph.D.**, Graduate research in Dr. Ralph Isberg's laboratory at the Department of  
Molecular Biology and Microbiology, Tufts University Sackler School of Biomedical  
Sciences, Boston, MA.

September, 2002- August, 2008.

**Research Technician**, Harvard Medical School, Dana Farber Cancer Institute in Dr.  
Pamela Silver's laboratory, Boston, MA.

June, 2001- August, 2002.

**B.S.**, Honors Thesis in Dr. Glen T. Lawson's laboratory, Biochemistry Major and Music  
Minor, Cum Laude, Bates College, Lewiston, ME.

September, 1997- June 2001.

**Research Intern**, Ontogeny (now known as Curis Inc.), Cambridge, MA.

June- August, 1998 and June- July, 1999

### **PUBLICATIONS**

Grendler J, Lowgren S, Mills M, and **Losick VP**. Wound-induced polyploidization is  
driven by Myc and supports tissue repair in the presence of DNA damage.

*Development*. 2019, Aug 2; pii: dev173005.

Gjelsvik KJ, Besen-McNally R, and **Losick VP**. Solving the polyploid mystery in health  
and disease. *Trends in Genetics*. 2019, Jan;35(1):6-14.

### **Postdoc publications**

**Losick VP.** Wound-induced polyploidy is required for tissue repair. *Adv Wound Care* (New Rochelle). 2016, Jun 1;5(6):271-278.

**Losick, VP,** Jun, AS, and Spradling, AC. Wound-induced polyploidization: regulation by Hippo and JNK signaling and conservation in mammals. *PLoS One*. 2016 Mar 9;11(3):e0151251.

**Losick, VP,** Fox DT, and Spradling, AC. Polyploidization and cell fusion contribute to wound healing in the adult *Drosophila* epithelium. *Current Biology*. 2013, Nov 18; 23(22):2224-32.

**Losick VP,** Morris LX, Fox DT, Spradling A. *Drosophila* stem cell niches: a decade of discovery suggest a unified view of stem cell regulation. *Developmental Cell*. 2011, Jul 19; 21(1):159-71.

### **Graduate publications**

Liu M, Uehara T, **Losick VP,** Park JT, and Isberg RR. A *Legionella pneumophila* protein that facilitates evasion from Nod1 recognition. *Cell Host Microbe*. 2012, Aug 16; 12(2):166-76.

**Losick VP,** Haenssler E, Moy M, and Isberg RR. LnaB: a *Legionella pneumophila* activator of NF-kappaB. *Cell Microbiology*. 2010, Aug; 12(8):1083-97.

Li Z, Dugan AS, Bloomfield G, Skelton J, Ivens A, **Losick VP,** and Isberg RR. The amoebal MAP kinase response to *Legionella pneumophila* is regulated by DupA. *Cell Host Microbe*. 2009, Sep 17; 6(3):253-67.

**Losick VP\***, Stephan KS\*, Isberg, RR, Poltorak A. A hemidominant Naip5 allele in MOLF/Ei-derived macrophages restricts *L. pneumophila* intracellular growth. *Infection and Immunity*. 2009, Jan; 77(1):196-204. \*Co-primary authors.

**Losick VP** and Isberg RR. NF-kappaB translocation prevents host cell death after low-dose challenge by *Legionella pneumophila*. *Journal of Experimental Medicine*. 2006, Sep 4; 203(9):2177-89.

### **Undergraduate publication**

**Losick VP,** Schlax PE, Emmons RA, Lawson TG. Signals in Hepatitis A Virus P3 region Proteins recognized by the ubiquitin-mediated proteolytic system. *Virology*. 2003, May 10; 309(2):306-19.

## **INVITED AND SELECTED TALKS**

**59<sup>th</sup> Annual *Drosophila* Research Conference** on April 11<sup>th</sup>-15<sup>th</sup>, 2018.

*Polyploid cell growth is required for wound repair to prevent mitotic induced cell death.*

\*invited co-chair of Cell Biology & Signal Transduction session

**Northeast Regional IDeA Conference** on August 16-18<sup>th</sup>, 2017.  
*Wound healing the fruit fly way.*

**43rd Maine Biological and Medical Sciences Symposium** April, 2016.  
*“Going BIG for Wound Repair”*

**Keystone Symposia:** Molecular and Cellular Basis of Growth and Regeneration  
January, 2016. *“Going BIG for Wound Repair”*  
\*invited chair of Patterning, Growth and Regeneration session

**55<sup>th</sup> Annual Drosophila Research Conference:** Regeneration and Wound Healing  
workshop March, 2014. *“Wound-induced polyploidy is regulated by Yorkie and Jun”*

**53<sup>rd</sup> Annual Drosophila Research Conference** March, 2012.  
*“Polyploidy as a mechanism of tissue repair in Drosophila”*

### Talks by Trainees

**Polploidy in Organ Development, Repair, and Disease Symposium** on October 13-14<sup>th</sup>, 2018. *The mechanics of polyploidy in wound repair.* by **Gjelsvik K** and Losick VP.

**45<sup>th</sup> Maine Biological and Medical Sciences Symposium** on April 27<sup>th</sup>, 2018.  
*The mechanics of polyploidy in wound repair.* by **Gjelsvik K** and Losick VP.

**59<sup>th</sup> Annual Drosophila Research Conference:** Spotlight on Undergraduate  
Workshop on April 11<sup>th</sup>-15<sup>th</sup>, 2018. *Beta Integrin Regulates Wound Repair in Drosophila*  
by **Besen-McNally R**, Gjelsvik K, and Losick VP.

**44<sup>th</sup> Maine Biological and Medical Sciences Symposium** on April 29<sup>th</sup>, 2017.  
*Beta Integrin Regulates Wound repair in Drosophila*  
by **Besen-McNally R**, Gjelsvik K, and Losick VP.

**58<sup>th</sup> Annual Drosophila Research Conference** on April 1<sup>st</sup>, 2017.  
*Mitotic Gene Expression Dictates Mechanism of Tissue Repair in Drosophila*  
by **Grendler J** and Losick VP.

### AWARDS

#### Fellowships and Grants

2018-2019 William Procter Scientific Innovation Fund  
2018 The Company of Biologists Scientific Meeting Grant to support Polyploidy  
Symposium at MDI Biological Laboratory.  
2017-2022 Maximizing Investigators' Research Award for Early Stage Investigators  
NIGMS (R35GM12469).

2016-2017 Centers of Biomedical Research Excellence Project Leader, NIGMS (P20GM104318).  
2009-2012 Jane Coffin Childs Postdoctoral Fellowship

### **Other honors**

2014 Drosophila Image Award finalist  
2001 Bates College Biochemistry Departmental Honors

## **OTHER EXPERIENCE AND PROFESSIONAL MEMBERSHIPS**

### **Societal Memberships**

2013- present Member, American Society for Cell Biology  
2009- present Member, Genetics Society of America

### **Ad Hoc Reviewer**

2017-present Medical Research Council grant  
2016 NIH BUILD PODER grant  
2015- present Cell Press Journals  
2018- present Company of Biologist Journals

### **Institutional and University Service**

2017- present Member, University of Maine GSBSE Admission Committee  
2017- present Member, University of Maine GSBSE 1<sup>st</sup> Year Advisory Committee  
2017- 2018 Member, University of Maine GSBSE Steering Committee  
\*assisted with planning and writing 2018 T32 NIH training grant entitled, "*Transdisciplinary Predoctoral Training in Biomedical Science and Engineering*".  
2016- 2017 Member, MDI Biological Laboratory IACUC Committee

### **Meeting Organizer**

2018 Symposium, Polyploidy in Organ Development, Repair, and Disease at MDIBL.  
2017 Symposium, Learning from Nature: Comparative Biology of Tissue Regeneration and Aging at MDIBL.  
2010 29<sup>th</sup> annual meeting, Journey of the Germ Cell at Carnegie Institution for Science.

## **TEACHING AND MENTORING EXPERIENCE**

### **MDIBL Instructor for undergraduate laboratory short course**

Supported by Maine INBRE on "*Drosophila as model for human health and disease*"  
2019 Southern Maine Community College  
2018 University of Maine, Machias and Fort Kent

2017 [College of the Atlantic](#)

**MDIBL Instructor short course on regenerative biology**

2017 [Comparative Regenerative Biology](#)

**Instructor in NIH Bio-Trac Stem Cell Course**

2011- 2014 Course occurs twice a year in September and March

Instructed and designed two lectures on “*Stem cells in non-mouse model systems*” and “*The stem cell niche*”, as well as a laboratory.

**Teaching Assistant**

2003-2006 Tufts Medical and Dental School Microbiology Laboratory and  
Molecular Biology Workshop

**Mentorship**

Dedicated mentor of women (\*), persons from racial/ethnic (#), and socioeconomically disadvantaged (ψ) students whom are underrepresented in biomedical research.

Assistant Professor at MDIBL

2018- Postdoctoral Associate, Navdeep Gogna\*

2018- MDIBL Research Assistant, Ari Dehn<sup>ψ</sup>

2018 College of Atlantic undergraduate, Sara Lowgren\*

2017 University of Maine undergraduate summer student, Matthew Oberholtzer  
(Capstone Project)

2017 University of Maine undergraduate summer student, Stephan Jackson<sup>#</sup>  
(Capstone Project)

2016 University of Maine, Machias undergraduate summer student, Monique Mills<sup>\*/ψ</sup>

2016- MDIBL Research Assistant II/ GSBSE graduate student (2018), Kayla Gjelsvik\*

2016- College of Atlantic undergraduate, Rose Besen-McNally\*

2016- MDIBL Research Assistant, Janelle Grendler<sup>\*/ψ</sup>

Thesis Committee Member for University of Maine GSBSE program

2018- Connor Murphy (Reagan lab, MMCRI)

2018- Christine Hale (Ganter lab, UNE)

Postdoc in Spradling laboratory

2014 JHU Graduate Student, Orville Mayberry III

2013 JHU Undergraduate Student, Madelyn Goodman\*

2012 JHU Graduate Student, Mary Smith\*

2010 Spradling Lab Technician, Megan Kutzer\*

Graduate student in Isberg laboratory

2008 Tufts University Sackler Graduate Student, Aaron New

2007 High School Student Intern, Man-Yu Moy