Curriculum Vitae

Wendy Scott Beane, Ph.D.

Department of Biological Sciences
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EDUCATION

Doctor of Philosophy, 2007 **(**Biology) **Duke University**, Durham, NC, *Certificates in: Developmental & Stem Cell Biology, and Cell & Molecular Biology*
Bachelor of Science, 2001 **(**Biomedical Sciences, Chemistry minor) **Averett University**, *Cum Laude*
Bachelor of Arts, 1996 (English, Sociology minor) **Averett University**, Danville, VA

POSITIONS

Associate Professor Department of Biological Sciences
08/2018 – *Western Michigan University*

Assistant Professor Department of Biological Sciences
08/2013 –08/2018 *Western Michigan University*

Postdoctoral Fellow Dr. Michael Levin, Tufts University
05/2008 – 08/2013 Previously: Forsyth Institute, Harvard Medical School
Biophysical Regulation of Morphology in Planarian Regeneration

Graduate Student Dr. David McClay, Duke University
07/2001 – 05/2007 *Gene Regulatory Networks and Rho GTPases: Sea Urchin Endomesodermal Specification and Morphogenesis*
Interim Postdoc
05/07 – 04/08 (Postdoc: *Calcium Signaling and Sea Urchin Oral/Aboral Specification*)

Teaching

2019 BIOS 5260: Molecular Biology Laboratory: Regeneration, Western Michigan University
2016- BIOS 5750: Stem Cells and Regeneration, Western Michigan University
2015- BIOS 1610: Molecular and Cellular Biology, Western Michigan University
2018 BIOS 6050: Biological Science Colloquium, Western Michigan University
2016 BIOL 190/IQS 1: Integrated Quantitative Science *(Guest Lecturer)*, University of Richmond
2014 BIOS 1500: Molecular and Cellular Biology, Western Michigan University
2013 BIOS 5970: Current Topics in Regeneration, Western Michigan University
2010 BIO 52: Experiments in Cell Biology *(Guest Lecturer)*, Tufts University
2009 BIO 52: Experiments in Cell Biology *(Guest Lecturer)*, Tufts University
2007 BIO 119: Cell and Developmental Biology *(TA)*, Duke University
2006 BIO 205L: Experiments in Developmental and Molecular Genetics *(TA)*, Duke University
2003 (2 semesters) BIO 205L: Experiments in Developmental and Molecular Genetics *(TA)*, Duke University

FUNDING

2017- NSF CAREER, National Science Foundation, *CAREER: Molecular Mechanisms Regulating Neural Regeneration in Planarians* (NSF# 1652312)

2016-7 NSF EAGER, National Science Foundation, *EAGER: Collaborative Research: Some Effects of Weak Electric and Magnetic Fields on Biological Systems* (NSF# 1644384)
2016-7 Support for Faculty Scholars Award, Western Michigan University, *Comparative Analysis of Tissue Remodeling During Planarian Regeneration* (SFSA# S2016-015)
2014-5 Faculty Research and Creative Activities Award, Western Michigan University, *Identifying Calcium Pathways that Control Regeneration of Shape* (FRACAA #W2014-013)
2013-4 Support for Faculty Scholars Award, Western Michigan University, *Establishing Planaria as a Model for Whole Eye Regeneration* (SFSA# F2013-006)
2008-11 Ruth L. Kirschstein National Research Service Award, NIGMS, *Biophysical Regulation of Axial Polarity During Regeneration* (NIGMS Grant # F32GM083547)
2001-3 Training Fellowship, National Institutes of Health, Duke Program in Developmental Biology
1997 Student Undergraduate Traineeship Grant, Cystic Fibrosis Foundation (UNC-Chapel Hill)

Awards & Honors

2018 Honorary Faculty Fellow (Award). Lee Honors College, Western Michigan University.
2018 Excellence in Discovery Award. Western Michigan University
2018 Distinguished Research and Creative Scholarship Award. Office of the Vice President for Research, Western Michigan University
2017 Faculty Travel Grant. Society for Developmental Biology (SDB) 76th Annual Meeting
2011 First Prize, Image Award, NIDDK Mechanisms of Organ Repair & Regeneration Meeting
2010 Awarded Participant Grant. PASI Short Course: Concepts and Model Organisms in Regenerative Biology, Santiago, Chile (NIH Grant # 1R13HD066961-01)
2010 Travel Grant. Society for Developmental Biology (SDB) 69th Annual Meeting, jointly with the Japanese Society of Developmental Biologists, Albuquerque, NM
2010 Awarded Participant Grant. NIGMS Workshop for Postdocs Transitioning to Independent Positions, NIH (Supported by NIH)
2008 Tuition Award. Ion Channel Physiology Course 2008, Cold Spring Harbor Laboratories
2007 Travel Grant. SDB 66th Annual Meeting and First Pan American Developmental Biology Congress, Cancun, Mexico
2006 Awarded Participant Grant. NIGMS, APS/SDB Professional Skills Course on Writing and Reviewing for Scientific Journals, Englewood, CO (NIGMS Grant # GM073062-01)
2004 Graduate Student Symposium Departmental Award. (Biology Department), Duke University
2004 Second Place, Student Poster Competition, SDB 63rd Annual Meeting
2002-3 Travel Grants. Developmental Biology of Sea Urchins, Conferences XIV and XV, Marine Biological Laboratory, Woods Hole, MA
2001 Elizabeth and James Bustard Distinguished Scholar Award. Averett College
2000- Member, Beta Beta Beta, (Biological Honor Society)
1996 American Legion Citizenship Award.
1996 Outstanding Student in English Award. Averett College

Professional Memberships & Service Activities

2018- Review Editor in Evolutionary Developmental Biology, part of the journals *Frontiers in Cell and Developmental Biology* and *Frontiers in Ecology and Evolution*
2017- WMU Lee Honors College Scholarship Committee
2017- WMU Biological Sci. Dept. Graduate Policies and Admissions Committee [Chair 2018-]
2016- WMU Biological Sciences Departmental Development Committee
2014- Participating Faculty, HHMI Grant to Reform WMU Introductory Biology Instruction
2014- Member, Michigan Chapter of the Society for Neuroscience

2004- Member, The Society for Developmental Biology
2014-8 WMU Councilor for the Michigan Chapter of the Society for Neuroscience
2014-6 WMU Biological Sciences Departmental Advisory Committee (to the Chair)
2014-5 Biology MA Program Committee, WMU Academic Program Review and Planning
2013-4 WMU Biological Sciences Departmental Recording Secretary
2006 Graduate Student Representative, Biology Department Faculty Candidate Search Committee
2004-5 Member, The American Society for Cell Biology
2004 Member, Cell & Molecular Biology Annual Student Symposium Organization Committee
2003-7 Co-Founder, Developmental Biology "Young Ones" Seminar Series (student run)
2003 Co-Chair, Developmental Biology Program Student Recruitment Visitation Committee
2002-3 Member, Biology Graduate Program Steering Committee
2002 Member, Cell & Molecular Biology Program Student Recruitment Visitation Committee

Workshops/Courses

Nov. 2010 PASI Short Course: Concepts and Model Organisms in Regenerative Biology, Chile
March 2010 NIGMS Workshop for Postdocs Transitioning to Independent Positions, NIH, MD
June 2008 Ion Channel Physiology Course, Cold Spring Harbor Laboratories, NY
May 2006 APS Professional Skills Course: Writing & Reviewing for Scientific Journals, Denver, CO

Publications (* = undergraduate student, ** graduate student)

20. Van Huizen AV**, Morton JM*, Kinsey LJ**, Von Kannon DG**, Saad MA*, Birkholz TR**, Czajka JM*, Cyrus J, Barnes FS, **Beane WS**. (2019) Weak magnetic fields alter stem cell–mediated growth. ***Science Advances***, Jan 30;5(1):eaau7201. DOI: 10.1126/sciadv.aau7201.
(**Highlighted by:** Williams, R. (2019) Weak Magnetic Fields Manipulate Regeneration in Worms. *The Scientist*, Jan 30, 2019.)
(Highlighted by: "This week in *Science*" Feb 1, 2019 issue, http://science.sciencemag.org/content/363/6426/twis**)**

19. Birkholz TR**, Van Huizen AV**, **Beane WS**. (2019) Staying in Shape: Planarians as a Model for Understanding Regenerative Morphology. *Semin Cell Dev Biol.* 2019 Mar;87:105-115. DOI 10.1016/j.semcdb.2018.04.014. Epub 2018 Jul 25. **[Cover Image]**

18. Van Huizen AV**, Tseng AS, **Beane WS**. (2017) Methylisothiazolinone Toxicity and Inhibition of Wound Healing and Regeneration in Planaria. *Aquat Toxicol.* Oct;191:226-235.

17. Birkholz TR**, **Beane WS**. (2017) The Planarian TRPA1 Homolog Mediates Extraocular Behavioral Responses to Near Ultraviolet Light. *J Exp Biol.* Jul 15;220(Pt 14):2616-2625.

16. Morton JM*, Saad MA*, **Beane WS.** (2017) Surgical Ablation Assay for Studying Eye Regeneration in Planarians. *J Vis Exp.* Apr 14;(122).

15. Deochand ME**, Birkholz TR**, **Beane WS**. (2016) Temporal regulation of planarian eye regeneration. ***Regeneration (Oxf).*** Oct 28;3(4):209-221.

14. Schatzberg D, Lawton M, Hadyniak SE, Ross EJ, Carney T, **Beane WS**, Levin M, Bradham CA. (2015) H+/K+ ATPase activity is required for biomineralization in sea urchin embryos. *Dev Biol.* 2015 Oct 15;406(2):259-70.

13. Paskin TR**, Jellies J, Bacher J*, **Beane WS**. (2014) Planarian phototactic assay reveals differential behavioral responses based on wavelength. ***PLoS One.*** Dec 10;9(12):e114708.

12. **Beane WS**, Morokuma J, Lemire JM, Levin M. (2013) Bioelectric signaling regulates head and organ size during planarian regeneration. ***Development***. Jan;140(2):313-322.
(Highlighted by: the "In this Issue" page)

11. **Beane WS**, Tseng A, Morokuma J, Lemire J, Levin M. (2012) Inhibition of planar cell polarity extends neural growth during regeneration, homeostasis and development. ***Stem Cells Dev***. 2012 Aug 10;21(12):2085-94. **[Cover Image]**

10. Lobo D, **Beane WS**, Levin M. (2012) Modeling planarian regeneration: a primer for reverse-engineering the worm. ***PLoS Comput Biol.*** 8(4) e1002481. (Perspective) **[Featured Image]**

9. **Beane WS**, Morokuma J, Adams DS, Levin M. (2011) A chemical genetics approach revels H,K-ATPase-mediated membrane voltage is required for planarian head regeneration. ***Cell Chemical Biol.*** Jan 28;18(1):77-89. Highlighted in *Science Daily*.
Preview: Sater, AK. (2011) A jump-start for planarian head regeneration. *Cell Chemical Biol.* Jan 28;18(1):4-5.

8. Tseng AS, **Beane WS**, Lemire JM, Masi A, Levin M. (2010) Induction of vertebrate regeneration by a transient sodium current. ***J Neurosci.*** Sep 29;30(39):13192-200. **[Cover Image]**
(Highlighted by: articles in the New York Times, Science News, and msnbc.com)

7. Stevenson CG* and **Beane WS**. (2010) A low percent ethanol method for immobilizing planarians. ***PLoS One.*** Dec 14;5(12):e15310.

6. Oviedo NJ and **Beane WS**. (2009) Regeneration: The origin of cancer or a possible cure? ***Semin Cell Dev Biol.*** Jul;20(5):557-64. (Review)

5. Bradham CA, Foltz KR, **Beane WS**, Arnone MI, Rizzo F, Coffman JA, Mushegian A, Goel M, Morales J, Geneviere A-M, Lapraz F, Robertson AJ, Kelkar H, Loza-Coll M, Townley IK, Raisch M, Roux MM, Lapage T, Gache C, McClay DR, Manning G. (2006) The sea urchin kinome: a first look. ***Dev Biol.*** Dec 1; 300(1):180-193.

4. Morales J, Mulner-Lorillon O, Cosson B, Morin E, Bellé R, Bradham CA, **Beane WS**, Cormier P. (2006) Translational control genes in the sea urchin genome. ***Dev Biol.*** Dec 1; 300(1):293-307.

3. **Beane WS**, Voronina E, Wessel GM, McClay DR. (2006) Lineage-specific expansions provide genomic complexity among sea urchin GTPases. ***Dev Biol.*** Dec 1; 300(1):165-179.

2. **The Sea Urchin Genome Sequencing Consortium**. (2006) The genome of the sea urchin *Strongylocentrotus purpuratus*. ***Science.*** Nov 10;314(5801):941-952. *My data is Fig. 4.

1. **Beane WS**, Gross JM, McClay DR. (2006) RhoA regulates initiation of invagination, but not convergent extension, during sea urchin gastrulation. ***Dev Biol.*** Apr 1;292(1):213-25.

Invited Talks

(2019) *Regulation of Stem Cell Proliferation by Weak Magnetic Fields.* Developmental Bioelectricity Satellite Symposia, 78th Annual Meeting of the Society for Developmental Biology, Boston, MA.

2017 *Understanding Morphogenesis During Planarian Regeneration*. 4th North American Planarian Meeting, Woods Hole, MA (Selected Speaker)

2016 *More than Meets the Eye: Photoreception and Eye Regeneration in Planarians*. Grand Valley State University, Biomedical Sciences Department Seminar Series

2016 *The Body Electric: How Ion Transport Shapes Tissues During Regeneration*. University of Richmond, Department of Biology Seminar Series

2015 *Calcium Signaling and Regenerative Shape.* 3rd North American Planarian Meeting, Chicago, IL. (Selected Speaker)

2014 *Membrane Voltage: How Tissues Regain Their Shape During Regeneration*. University of Colorado, Boulder, Department of Electrical, Computer, and Energy Engineering Seminar Series.

2014 S*taying in Shape: Membrane Voltage as a Master Regulator of Tissue Shape During Regeneration*. BioEM 2014, the joint annual meeting of BEMS (the Bioelectromagnetics Society) and EBEA (the European Bioelectromagnetics Association), Cape Town, South Africa. **(Plenary Speaker)**

2013 *Orchestrating Regeneration: Using Planaria to Understand Animal Shape.* University of Nevada, Las Vegas, School of Life Sciences (Biology) Seminar Series.

2012 *Planaria: A Model of Bioelectric Control of Regenerative Shape.* Central Connecticut State University, Developmental Biology (BMS 562) course, Fall.

2012 *Orchestrating Regeneration: Uncovering How Cellular Responses are Coordinated.* University of Kentucky, Department of Biology Seminar Series, Fall.

2012 *Planar Cell Polarity Restricts Neural Growth During Regeneration.* EMBO Conference: The Molecular and Cellular Basis of Regeneration and Tissue Repair, Oxford, England. (Selected Speaker)

2011 *Keeping Your Head: How Membrane Voltage Drives Anterior Regeneration in Planaria.* Tufts University Biology Seminar Series, Fall.

2008 *A Role for Calcium Signaling in Oral/Aboral Specification.* Developmental Biology of the Sea Urchin XVIII, Woods Hole, MA.

2006 *The GTPase RhoA, SoxB1 Clearance, and Endomesodermal Specification*. Developmental Biology of the Sea Urchin XVII, Woods Hole, MA. (Selected Speaker)

2005 *The Small GTPase RhoA and Gastrulation*. Developmental Biology of the Sea Urchin XVI, Woods Hole, MA. (Selected Speaker)

2004 *The Small GTPase RhoA is Required for Sea Urchin Gastrulation.* 13th Annual Duke University Biological Sciences Graduate Student Symposium. (Awarded Talk)

Abstracts

(2019) - **Beane WS**, Van Huizen AV, Kinsey LJ, and Barnes F. *Non-linear Effects on Stem Cell-Mediated Regeneration Following Weak Magnetic Field (WMF) Exposure.* BioEM 2019, the joint annual meeting of BEMS (the Bioelectromagnetics Society) and EBEA (the European Bioelectromagnetics Association), Montpellier, France.

(2019) - Birkholz TR, Kha CX, **Beane WS**, and Tseng AS. *Bioelectricial Signaling Regulates Eye Regeneration.* BioEM 2019, Montpellier, France.

(2019) - Van Huizen AV, Kinsey LJ, Barnes F, and **Beane WS**. *Manipulation of Weak Magnetic Fields Alters Stem Cell Proliferation During Regeneration.* BioEM 2019, Montpellier, France.

(2019) - Barnes F, Gurhan H, Kandala S, and **Beane WS**. *Some effects of weak static magnetic fields on ROS concentrations and growth rates.* 21st International Conference on Oxidative Stress Reduction, Redox Homeostasis and Antioxidants, Paris, France.

2018 - Van Huizen AV, Kinsey LJ, Von Kannon D, and **Beane WS**. *Weak Magnetic Fields Affect Blastema Growth Via Changes in ROS-Mediated Signaling.* 2018 International Planarian Meeting, Madison, WI.

2018 - Birkholz TR, Kha CX, Tseng AS, and **Beane WS**. *Conserved Mechanisms that Regulate Eye Repair and Regeneration*. Gordon Research Conference, 2018 Visual Systems Development, Lucca (Barga), Italy.

2018 - Birkholz TR, Kha CX, **Beane WS**, and Tseng AS. *Identification of a Conserved Biophysical Mechanism for Productive Eye Repair*. Association for Research in Vision and Ophthalmology (ARVO) 2018 Annual Meeting, Honolulu, HI.

2017 - Saad MA, Kinsey LJ, Morton JM, Barnes F, and **Beane WS**. *Inhibition of Reactive Oxygen Species by Weak Magnetic Fields Blocks Blastema Growth.* 4th North American Planarian Meeting, Woods Hole, MA.

2017 - Von Kannon D, Watson G, **Beane WS**. *Disruption of Planar Cell Polarity Leads to Neural Hyperplasia in Planarians*. 4th North American Planarian Meeting, Woods Hole, MA.

2017 - Van Huizen AV, Tseng AS, **Beane WS**. *The Biocide Methylisothiazolinone Inhibits Planarian Wound Healing and Regeneration.* 4th North American Planarian Meeting, Woods Hole, MA. **** Selected for a talk.**

2017 - Birkholz TR and **Beane WS**. *Planarian Extraocular Responses to Near UV Light are Mediated by TRPA1.* Society for Developmental Biology (SDB) 76th Annual Meeting, Minneapolis, MN.

2017 - Van Huizen AV, Tseng AS, **Beane WS**. *Methylisothiazolinone Inhibition of Wound Healing in Regenerating Planaria.* Society for Developmental Biology (SDB) 76th Annual Meeting, Minneapolis, MN.

2017 - Von Kannon D, Birkholz TR, **Beane WS**. *Using Planaria To Understand Neural Regeneration*. Society for Developmental Biology (SDB) 76th Annual Meeting, Minneapolis, MN.

2017 - Morton JM, Kinsey L, Czajka J, Cyrus J, Barnes F, and **Beane WS**. *Weak Magnetic Field Manipulation Disrupts Planarian Regeneration by Blocking Accumulation of Reactive Oxygen Species.* BioEM 2017, the joint annual meeting of BEMS (the Bioelectromagnetics Society) and EBEA (the European Bioelectromagnetics Association), Hangzhou, China.

2017 - Birkholz TR and **Beane WS**. *Near UV Light Responses are Mediated by TRPA1 in Planarians.* 48th Annual meeting of the Michigan Chapter of the Society for Neuroscience, Ann Arbor, MI.

2017 - Van Huizen AV, Tseng AS, **Beane WS**. *Neuromuscular and Sensory Impairments Following Methylisothiazolinone Exposure in Regenerating Planaria.* 48th Annual meeting of the Michigan Chapter of the Society for Neuroscience, Ann Arbor, MI.

2016 - Birkholz TR, Deochand ME, **Beane WS.** *Planaria as a Model for Optic Nerve and Photoreceptor Regeneration.* Gordon Research Conference, 2016 Visual Systems Development, West Dover, VT.

2016 - Morton JM, Czajka J, Cyrus J, Barnes F, and **Beane WS**. *Weak Magnetic Field Manipulation Disrupts Regenerative Outgrowth in Planaria*. BioEM 2016, the joint annual meeting of BEMS (the Bioelectromagnetics Society) and EBEA (the European Bioelectromagnetics Association), Ghent, Belgium.

2016 - Beane WS and Deochand ME. *The Temporal Regulation of Optic Nerve and Photoreceptor Regeneration.* 47th Annual meeting of the Michigan Chapter of the Society for Neuroscience, East Lansing, MI.

2016 - Birkholz TR and **Beane WS.** *Planarian Photophobic Behavior is Mediated by Both Ocular and Dermal Phototransduction.* 47th Annual meeting, Michigan Chapter of the Society for Neuroscience, East Lansing, MI.

2015 - Paskin TR, Jellies J, Bacher J, **Beane WS**. *Planarian "Vision": A Combination of Ocular and Dermal Phototransduction.* 3rd North American Planarian Meeting, Chicago, IL.

2015 - Deochand ME, Duong KN, **Beane WS.** *Novel Eye Ablation Assay Reveals Eye Regenerative Program.* 46th Annual meeting of the Michigan Chapter of the Society for Neuroscience, Mt. Pleasant, MI.

2014 - Deochand ME, Duong KN, **Beane WS.** *Novel Eye Ablation Assay Reveals Static Eye Regeneration Program.* 52nd Annual Midwest Society for Developmental Biology Meeting, St. Louis, MO.

2014 - Paskin TR, Jellies J, Bacher J, **Beane WS**. *Planarian Phototaxis is Wavelength-Specific and Hierarchal.* 52nd Annual Midwest Society for Developmental Biology Meeting, St. Louis, MO.

2014 - Tseng AS, **Beane WS**, Levin M. *Sodium Currents are Required for Vertebrate Appendage Regeneration.* BioEM 2014, the joint annual meeting of BEMS (the Bioelectromagnetics Society) and EBEA (the European Bioelectromagnetics Association), Cape Town, South Africa.

2014 - Deochand ME, Duong, KN, **Beane WS**. *A Closer Look at Eye Regeneration: Establishing a Planarian Eye Ablation Assay.* Annual meeting of the Michigan Chapter of the Society for Neuroscience, Kalamazoo, MI.

2014 - Paskin TR, Jellies J, Bacher J, **Beane WS.** *Planarians Exhibit Differential Behavioral Responses To Individual Wavelengths of Light.* 45thAnnual meeting of the Michigan Chapter of the Society for Neuroscience, Kalamazoo, MI.

2012 - Beane WS, Tseng AS, Morokuma J, Lemire JM, Levin, M. *Planar Cell Polarity Restricts Regenerative Neural Growth.* Keystone: Mechanisms of Whole Organ Regeneration. Breckenridge, CO.

2012 - Tseng AS, **Beane WS**, Lemire JM, Masi A, Levin M. *Sodium Currents Mediated by NaV are Necessary to Initiate Vertebrate Appendage Regeneration.* Keystone: Mechanisms of Whole Organ Regeneration. CO.

2011 - Beane WS, Morokuma J, Adams DS, Levin, M. *Membrane Voltage Regulates Anterior Polarity During Planarian Regeneration.* Mechanisms of Organ Repair and Regeneration (NIDDK), Ellicott City, MD.

2010 - Beane WS, Morokuma J, Adams DS, Levin, M. *Membrane Voltage Regulates Anterior Polarity During Planarian Regeneration.* 5th International Meeting of the Latin American Society for Developmental Biology (LASDB), Santa Cruz, Chile.

2010 - Beane WS, Morokuma J, Levin M. *H,K-ATPase-mediated ion transport regulates anterior patterning in regenerating planaria.* Society for Developmental Biology (SDB) 69th Annual Meeting. ***Dev Biol*. 344(1):522.**

2010 - Tseng AS, **Beane WS**, Lemire JM, et al. *NaV-mediated sodium transport is required for vertebrate appendage regeneration.* SDB 69th Annual Meeting. ***Dev Biol*. 344(1):519.**

2009 - Beane WS, Morokuma J, Adams DS, Levin, M. *H,K-ATPase-Mediated Ion Transport Regulates Anterior Patterning in Regenerating Planaria*, Universidad Internacional de Andalucía Workshop: Mechanisms of Organ Regeneration in Model Systems, Baeza, Spain.

2009 - Beane WS, Oviedo NJ, Adams DS, Levin M. *H,K-ATPase-mediated Ion Transport Regulates Anterior Patterning in Regenerating Planaria,* 16th International Society of Developmental Biologists Congress. ***Mech Dev*. Aug; 126 (Sup. 1): pp. S294-S295.**

2008 - McClay DR, Croce JC, Wu SY, **Beane WS**, Walton KD. *Gene Regulatory Networks Governing Morphogenesis*. SDB 67th Annual Meeting. ***Dev Biol*. 319(2):477.**

2007 - Beane WS, Walker MA, Jung D, Herman, L, Koff JL, Bradham CA, McClay DR. *Patterning the Sea Urchin Skeleton:A Role for Calcium Signaling.* SDB 66th Annual Meeting and First Pan American Congress (3rd LASDB Annual Meeting). ***Dev Biol*. 306(1):400.**

2007 - Beane WS, Bradham, CA, McClay DR. *Patterning the Sea Urchin Skeleton: A Role for Calcium Signaling.* Southeast Regional Meeting of the Society for Developmental Biology.

2006 - Beane WS, McClay DR. *Clearing the Way: The Small GTPase RhoA and Endomesodermal Specification*. SDB 65th Annual Meeting. ***Dev Biol*. 295(1):411-412.**

2005 - Beane WS, Gross JM, McClay DR. *RhoA Triggers Endoderm Invagination During Sea Urchin Gastrulation*. SDB 64th Annual Meeting. ***Dev Biol*. 283(2):628.**

2004 - Beane WS, Gross JM, McClay DR. *The Small GTPase RhoA is Essential for Gastrulation in the Sea Urchin*. American Society for Cell Biology, 44th Annual Meeting. ***Mol Biol Cell* 15:459A.**

2004 - Beane WS, Gross JM, McClay DR. *The Small GTPase RhoA is Essential for Gastrulation in the Sea Urchin*. SDB 63rd Annual Meeting. ***Dev Biol.*** **271(2):607.**

Mentoring

Graduate Students (WMU)

2018- Luke Kinsey, *Doctoral Graduate Student*, Western Michigan University

2018- Allison Witucki, *Doctoral Graduate Student*, Mallinson Institute for Science Education, Western Michigan University, together with Dr. David Rudge

2016- Alanna Van Huizen *Doctoral Graduate Student*, Western Michigan University
- Received National SDB Travel Award, 2017
- Distinguished Graduate Student in Biological Sciences 2018
- WMU Graduate Research and Creative Scholar (Ph.D. - Research) Award 2019

2016-8 Donald Von Kannon, *Masters Graduate Student*, Western Michigan University
- Received National SDB Travel Award, 2017

2014-8 Taylor Paskin Birkholz, *Doctoral Graduate Student*, Western Michigan University
- Received Midwest Regional SDB Travel Award, 2014
- Best Poster Award, WMU Poster Day, 2016
- WMU Distinguished Graduate Student in Biological Sciences 2017
- Received National SDB Travel Award, 2017
- WMU Graduate College Graduate Student Travel Award, 2018
- Association for Research in Vision and Ophthalmology Travel Award, 2018
- WMU Graduate Research and Creative Scholar (Ph.D. - Teaching) Award 2018

2013-6 Michelle Deochand, *Masters Graduate Student*, Western Michigan University
- University Fellowship Award Recipient (Graduate Doctoral Assistantship)
- Received Midwest Regional SDB Travel Award, 2014

Undergraduate Students (WMU) (Current Students in Bold)

2019- **Jacqueline Greene**, Member Lee Honors College, WMU

2018- **Tashifa Fayyaz**, Member Lee Honors College, WMU

2018 - **Sarah Gaffon,** Member Lee Honors College, WMU
- Lee Honors College Research and Creative Activities Award Summer 2019

2017- **Yarielis Rosario**, WMU
- WMU OVPR Undergraduate Research Excellence Award Spring 2018

2017- **Emily Bolhuis**, Member Lee Honors College, WMU
- WMU OVPR Undergraduate Research Excellence Award Fall 2017
- WMU CAS Undergraduate Research and Creative Award Spring 2018

2017- **Breanna Varker**, WMU
- WMU OVPR Undergraduate Research Excellence Award Fall 2017
- Received WMU CAS Undergraduate Research and Creative Award 2018

2016- **Marwa Saad**, Member Lee Honors College, WMU
- Received WMU CAS Undergraduate Research and Creative Award 2016
- WMU OVPR Undergraduate Research Excellence Award Spring 2017
- Received Lee Honors College Research and Creative Activities Award 2018
- Lee Honors College Research and Creative Activities Award Spring 2019
- WMU Presidential Scholar for Biological Sciences (University-Wide Honor) 2019
- WMU Presidential Scholar for Chemistry (University-Wide Honor) 2019

2016- **Allison Watson**, WMU

2016-8 Gabrielle Watson, Member Lee Honors College, WMU
- Received WMU CAS Undergraduate Research and Creative Award 2016
- Received Lee Honors College Research and Creative Activities Award 2017
- WMU OVPR Undergraduate Research Excellence Award Summer 2017
- WMU OVPR Undergraduate Research Excellence Award Fall 2017
- Received Lee Honors College Research and Creative Activities Award 2018
- WMU Distinguished Senior in Biomedical Sciences Award 2018

2016-8 Luke Kinsey, Member Lee Honors College, WMU
- Received WMU CAS Undergraduate Research and Creative Award 2016
- Received Lee Honors College Research and Creative Activities Award 2018

2015-8 Marcos Santiago, Member Lee Honors College, WMU
Received WMU CAS Undergraduate Research and Creative Award 2015, 2017
WMU OVPR Undergraduate Research Excellence Award Summer 2017

2016 Megan Rees, WMU

2016-7 Adam Sweeris (Dept of Electrical Engineering), WMU

2015-7 Jacob Morton, Member Lee Honors College, WMU (subsequently WMed)
WMU Distinguished Senior in Biomedical Sciences Award 2015
Received Lee Honors College Research and Creative Activities Award 2015

2015-6 Brooklin Trudell, WMU

2015-6 Rachel Gullicksen, WMU

2014-7 Marine Bolliet, Member Lee Honors College, WMU (subsequently WMed)
Received WMU CAS Undergraduate Research and Creative Award 2016
Lee Honors College Research and Creative Activities Scholarships 2014, 2016
WMU OVPR Undergraduate Research Excellence Award Spring 2017
WMU Presidential Scholar for Biological Sciences (University-Wide Honor) 2017
Best Thesis Presentation Award, Lee Honors College, 2017

2014-5 Jordan Czajka, WMU (subsequently Butler University School of Medicine)

2013-6 Jessica Bacher, Member Lee Honors College, WMU
Received WMU CAS Undergraduate Research and Creative Award 2015
Lee Honors College Research and Creative Activities Scholarship 2015

2013-5 Khoa Duong, WMU
Received WMU CAS Undergraduate Research and Creative Award 2015

2013-4 Kylie Dennis, Member Lee Honors College, WMU

Students Mentored Prior to WMU

Undergraduate Independent Study Students:

Elizabeth Tkachenko (Tufts), 2012-13, subsequently U. Mass Medical School
Maxim Kachalov (Tufts), Fall 2011
Linda Le (Tufts), Summer-Fall 2010
Claire Stevenson (Tufts), 2009-10; subsequently PhD Student, University of Chicago
Sofija Degesys (Duke), Spring 2008; subsequently Peace Corp
Bert Maidment III (Duke), 2006-7; subsequently Medical Student, University of Maryland
Jean L. Koff (Duke), 2005-6; subsequently Emory University Medical School
Melissa A. Walker (Duke), Spring-Summer 2003; subsequently MD/PhD Student, Columbia U.
Lauren Herman (Duke), Summer 2005; subsequently Medical Student, U. of Illinois at Chicago
(Kenneth) David Gray (Duke), Spring 2004

Graduate Rotation Students:

Fallon Schuler (Tufts), Spring-Sum 2012; Ph.D. Student, Developmental Biology Program
Gilbert Lee, IV (Duke), Fall 2007; Ph.D. Student, Duke Cell & Molecular Biology Program
Dawoon Jung (Duke), Winter 2004-5; Ph.D. Student, Duke Toxicology Program
Daniel Mace (Duke), Fall 2004; Ph.D. Student, Duke Comp. Bio. & Bioinformatics Program
Mark Vignola (Duke), Spring 2004; Graduate Student, Duke Cell & Molecular Bio. Program

Chair, WMU Lee Honors College Thesis Committees (Active Committees in Bold)

Jessica Bacher, *Investigating Ocular and Dermal Phototransduction in Planarian Flatworms*
(Graduated 2016, subsequently employed by Octapharma biotech company)

Emily Bolhuis, *Analyses of the Feeding Strategies of D. japonica and S. mediterranea Planaria*

Marine Bolliet, *A Comparative Analysis of Regeneration Among Various Planarian Species*
Winner, Best Thesis Presentation Award (Graduated 2017, then WMU Stryker School of Medicine)

Luke Kinsey, *Effects of Magnetic Field Strength on Reactive Oxygen Species Accumulation*
(Graduated 2018, subsequently WMU Graduate School, Biological Sciences, Ph.D.)

Jacob Morton, *The Role of Weak Magnetic Fields in Tissue Regeneration*
(Graduated 2016, subsequently WMU Stryker School of Medicine)

Marwa Saad, *Mechanisms of Reactive Oxygen Species Signaling During Planarian Regeneration*

Marcos Santiago, *The Role of Reactive Oxygen Species in Blastema Formation* (Graduated 2018)

Gabrielle Watson, *Understanding Neuronal Interactions in Planarians*
(Graduated 2016, subsequently employed by Eurofins/Zoetis)

Member, WMU Thesis Committees (Active Committees in Bold)

Mamoon Ali (M.S., WMU)
Chelesa Bagley (M.S., WMU, Graduated 2016)
Paige Blinkiewicz (Undergraduate Honors Thesis, WMU)
Cynthia Cooley-Themm (Ph.D., WMU, Graduated 2018, next: teaching at Hope College)
Natalie Hamilton (Undergraduate Honors Thesis, WMU, Graduated 2017)
James Hentig (Undergraduate Honors Thesis, WMU, Graduated 2016, next: Ph.D. student Notre Dame)
Elizabeth Ketchum (Ph.D., WMU)
Albert Lam (M.S., WMU)
Joshua Paris (M.S., WMU)
Tetiana Petrachkova (Ph.D., WMU)
Natasha Schiller (Ph.D., WMU, Graduate 2018, next: teaching Wingate University)
Darcy Trimpe (Ph.D., WMU, Graduated 2016)

Reviewer For *PLoS Genetics, Cell Reports, PLoS One, Developmental Biology, Physical Biology, Biology Letters, Development Genes and Evolution,* and others.