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Indiana University
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Research Area: Physiological control of stem cell lineages

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Google Scholar Index: <https://scholar.google.com/citations?user=XfLPud8AAAAJ&hl=en>

DEGREES

2014 PhD, Molecular, Cellular, and Developmental Biology
Indiana University, Bloomington, IN
PhD Advisor: Dr. Claire E. Walczak

2008 B.S., Biology
Indiana University, Bloomington, IN
Undergraduate Research Advisor: Dr. Claire E. Walczak

ADDITIONAL TRAINING

2010 MBL Physiology Course
Marine Biological Laboratory, Woods Hole, MA
Directors: Dr. Clare Waterman and Dr. R. Dyche Mullins

POSTDOCTORAL TRAINING

2014-2020 The Johns Hopkins University
Bloomberg School of Public Health
Department of Biochemistry and Molecular Biology
Postdoctoral Advisor: Dr. Daniela Drummond-Barbosa

APPOINTMENTS

2020- Assistant Professor,
Department of Biology
Indiana University, Bloomington, IN

MEMBERSHIP IN PROFESSIONAL SOCIETIES

2021- Society for Developmental Biology
2017- American Association for the Advancement of Science (AAAS)
2014- The Genetics Society of America (GSA)
2008- American Society for Cell Biology (ASCB)

HONORS and AWARDS

2022 Provost's Travel Award for Women in Science
2019 DeLill Nasser Travel Award for Professional Development in Genetics

2017	ASCB Minority Affairs Poster Competition Postdoc Winner
2017	ASCB Mentoring Academy Travel Award
2017	Johns Hopkins BMB Sharon Krag Scholastic Award for Outstanding Leadership
2016	Life Sciences Research Foundation Postdoctoral Fellowship Finalist (application withdrawn due to F32 award)
2010	American Society for Cell Biology (ASCB) Scholarship, Center for Modular Biology Fellows Scholarship, and William Townsend Porter Scholarship for MBL Physiology Course
2008	James P. Holland Fellow – Indiana University
2008	ASCB Minority Affairs Committee (MAC) Travel Award
2008	IU Metabolomics and Cytomics (METACyt) Initiative Award
2007 – 2008	NIH Initiative for Maximizing Student Diversity (IMSD) Scholar

PRIMARY RESEARCH PUBLICATIONS

Weaver, L.N. and Drummond-Barbosa, D. (2021). *Hormone receptor 4* is required in muscles and different ovarian cell types to regulate specific steps of *Drosophila* oogenesis. *Development*. PMID: 33547134.

Experiments for this paper were completed at IU.

This paper was featured in the Research Highlights section of the published issue.

Weaver, L.N. and Drummond-Barbosa, D. (2020). The nuclear receptor Seven up regulates genes involved in immunosuppression and xenobiotic response in the adult *Drosophila* female fat body. *G3*. PMID: 33087412.

Revisions for this paper were completed at IU.

Weaver, L.N., Ma, T., and Drummond-Barbosa, D. (2020). Analysis of Gal4 driver expression patterns in adult *Drosophila* females. *G3*. PMID: 32917721.

This paper was revised and accepted while at IU.

This paper was highlighted in the Genetics and G3 2020 Spotlight Collection.

Ems-McClung, S.C., Emch, M., Zhang, S., Mahnoor, S., **Weaver, L.N.**, and Walczak, C.E. (2019). RanGTP induces an effector gradient of XCTK2 and importin α/β for spindle microtubule cross-linking. *J Cell Biol*. PMID: 31865374.

Weaver, L.N. and Drummond-Barbosa, D. (2019). Nuclear receptor Seven up in adipocytes versus hepatocyte-like oenocytes controls distinct processes of *Drosophila* oogenesis. *Dev. Biol*. PMID: 31470019.

Weaver, L.N. and Drummond-Barbosa, D. (2018). Control of germline stem cell number by adipocyte collagen in adult *Drosophila*. *Genetics*. PMID: 29884747.

Weaver, L.N., Ems-McClung, S.C., Chen, R., Yang, G., Shaw, S.L., and Walczak, C.E. (2015). The Ran-GTP Gradient Spatially Regulates the Activity of XCTK2 within the Spindle. *Curr. Biol*. PMID: 25981788.

Weaver, L.N., Ems-McClung, S.C., Stout, J.R., LeBlanc, C, Shaw, S.L., Gardner, M.K., and Walczak, C.E. (2011). Kif18A Uses a Microtubule Binding Site in the Tail for Plus-End Localization and Regulation of Spindle Length. *Curr. Biol*. PMID: 21885282.

Cai, S., **Weaver, L.N.**, Ems-McClung, S.C., and Walczak, C.E. (2010). Proper Organization of Microtubule Minus-Ends is Needed for Midzone Stability and Cytokinesis. *Curr. Biol.* PMID: 20434340.

Cai, S., **Weaver, L.N.**, Ems-McClung, S.C., and Walczak, C.E. (2009). Kinesin-14 Family Proteins HSET/XCTK2 Control Spindle Length by Cross-Linking and Sliding Microtubules. *Mol. Biol. Cell.* PMID: 19116309.

COMMENTARIES and EDITORIALS

Weaver, L. *Curr. Biol.* Q & A interview. PMID: 33756133.

Takayama, K., **Weaver, L.N.**, Lummertz da Rocha, E., Lo Sardo, V., Gehart, H., and Vu, L.P. Introductions to the Community: Early-Career Researchers in the Time of COVID-19. *Cell Stem Cell.* PMID: 33275897.

Weaver, L.N. and Drummond-Barbosa, D. (2015). Gut healing: hemocytes come to the aid via Sax then Tkv jazzes it down. *Nat. Cell Biol.* 17(6):707-9. PMID: 26022916.

Weaver, L.N. and Walczak, C.E. (2015). Spatial Gradients Controlling Spindle Assembly. *Biochem. Soc. Trans.* PMID: 25619240.

Weaver, L. “The Minority Report – When Simply Adding Numbers is Not Enough.” American Society for Cell Biology Committee for Postdocs and Students (COMPASS) Blog – March 4, 2016 (<http://www.ascb.org/minority-report-simply-adding-numbers-not-enough/>)
Reprinted in ASCB Newsletter – May 2016

Weaver, L. “The Other Side of the Tracks – Tips for Transitioning from PhD Student to Postdoc.” American Society for Cell Biology Committee for Postdocs and Students (COMPASS) Blog – Oct. 9, 2015 (<http://www.ascb.org/the-other-side-of-the-tracks-tips-for-transitioning-from-phd-student-to-postdoc/>)

Weaver, L. “Put Your Best Foot Forward – Tips for the Postdoc Interview and Choosing a Lab” American Society for Cell Biology Committee for Postdocs and Students (COMPASS) Blog – Sept. 18, 2015 (<http://www.ascb.org/put-your-best-foot-forward-tips-for-the-postdoc-interview-and-choosing-a-lab/>)

Weaver, L. “Sometimes the Book is Judged by its Cover(Letter) – Tips for Preparing Your Postdoc Package.” American Society for Cell Biology Committee for Postdocs and Students (COMPASS) Blog – Sept. 11, 2015 (<http://www.ascb.org/sometimes-the-book-is-judged-by-its-cover-letter-tips-for-preparing-your-postdoc-package/>)

Weaver, L. “Oh, the places you will go – Tips for choosing a postdoc lab.” American Society for Cell Biology Committee for Postdocs and Students (COMPASS) Blog – Aug. 28, 2015 (<http://www.ascb.org/oh-the-places-you-will-go-tips-for-choosing-a-postdoc-lab/>)
Reprinted in ASCB Newsletter – Oct. 2015

Weaver, L.N. and Walczak, C. (2011). Kinesin-8s Hang on by a Tail. *BioArchitecture*. PMID: 22754615.

GRANTS

CURRENT GRANTS

Regulation of oogenesis by nuclear receptor signaling
National Institute of General Medical Sciences (NIGMS) R00
Grant Number: R00GM127605
July 1, 2020 – June 30, 2023
Total Award Amount: \$696,425
Role: PI

PAST GRANTS

Understanding how the Nuclear Receptor Hr4 Influences Germline Stem Cell Lineages
National Institute of General Medical Sciences (NIGMS) K99
Grant Number: K99GM127605
September 1, 2018 – June 30, 2020
Total Award Amount: \$174,424
Role: PI

Understanding how Nuclear Receptor Signaling in Adipocytes Influences Tissue Stem Cell Lineages
National Institute of General Medical Sciences (NIGMS) F32
Grant Number: F32GM119199
September 1, 2016 – August 31, 2018
Total Award Amount: \$114,120
Role: PI

Mechanisms of Mitotic Spindle Assembly
National Institute of General Medical Sciences (NIGMS) F31
Grant Number: F31GM099309
August 19, 2011 – July 31, 2014
Total Award Amount: \$80,286
Role: PI

INVITED SYMPOSIA AND CONFERENCE TALKS

2022	EMBO Molecular and Developmental Biology of <i>Drosophila</i> Workshop, Kolymvari, Crete, Greece
2022	Annual <i>Drosophila</i> Research Conference Workshop: “Inter-organ communication in the era of metabolomics,” San Diego, CA
2021	Annual Biochemistry and Molecular Biology/Experimental Biology Annual Meeting (virtual)
2020	Virtual Crete Workshop on Molecular and Developmental Biology of <i>Drosophila</i>
2019	60 th Annual <i>Drosophila</i> Research Conference, Dallas, TX
2018	Virginia Tech Future Faculty Development Program, Blacksburg, VA
2011	51 st American Society for Cell Biology Annual Meeting – Mitosis sub-interest group, Denver, CO

INVITED DEPARTMENTAL SEMINARS

2021	Department of Anatomy and Cell Biology, University of Iowa, Iowa City, IA
2021	Molecular, Cell, and Developmental Biology Department, University of Michigan, Ann Arbor, MI
2021	Division of Biology, Kansas State University, Manhattan, KS (virtual visit)
2020	Department of Cell and Developmental Biology, University of Michigan, Ann Arbor, MI (virtual visit)
2020	Cell Biology and Molecular Genetics Departments, Duke University, Durham, NC (virtual visit)
2020	Laboratory of Cellular and Developmental Biology, NIDDK, NIH, Bethesda, MD (virtual visit)
2020	Department of Molecular Cellular Biochemistry, Indiana University School of Medicine, Bloomington, IN (virtual visit)
2020	Department of Biological Sciences, University of Albany, State University of New York, Albany, NY (virtual visit)
2018	Department of Biological Sciences, Virginia Tech, Blacksburg, VA

ON CAMPUS PRESENTATIONS

2021	Arts and Sciences Undergraduate Research Experience (ASURE) Faculty Panel
2020	Joint <i>Drosophila</i> Group Meeting
2020	“A Conversation about Faculty Career Trajectories.” Sponsored by the Office of Postdoctoral Affairs
2020	Common Themes in Reproductive Diversity December Breakfast Meeting

PROFESSIONAL SERVICE

Service for Professional Societies

2022 – Present	ASCB Council (at large)
2015 – 2016	ASCB Committee for Postdocs and Students Communications Co-chair
2015 – 2016	Member, ASCB Committee for Postdocs and Students (COMPASS)
2014 – 2015	Associate, ASCB Committee for Postdocs and Students (COMPASS)

University and Departmental Service

2022 – Present	I Can Persist Professional Affiliate
2021 – Present	Genome, Cell, and Developmental Biology Admissions Committee
2021 – Present	Midwest <i>Drosophila</i> Research Conference treasurer
2021 – Present	James P. Holland Lecture series co-organizer
2022 (Sept – Dec)	Future of Graduate Education Task Force – Diversity, Equity, and Inclusion Working Group
2021 – 2022	Joint <i>Drosophila</i> Group Meeting organizer (Indiana University)
2020 – 2021	First year GCDB student mentor
2020	Z620 Grant Writing Course student mentor
2020	Welcome Week Title IX Training for GCDB students
2011 – 2019	James P. Holland Summer Science Program counselor

Grant and Funding Review Panels

2020	Ad-hoc reviewer, National Science Foundation
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Manuscript Reviewer

<u>Inclusive Dates</u>	<u>Journal</u>
December 2022	Development
October 2022	Biology Open
June 2022	eLife
April 2022	Development
March 2022	eLife
February 2022	Biology Open
January 2022	PLOS Genetics
November 2021	PLOS Genetics
September 2021	eLife
March 2021	Development
January 2021	Scientific Reports

MENTORING

Graduate students mentored in my laboratory

<u>Inclusive Dates</u>	<u>Student</u>	<u>Graduate Program</u>
2022 – Present	Sophie Fleck	Genome, Cell, and Developmental Biology

Graduate student rotations mentored in my laboratory

<u>Inclusive Dates</u>	<u>Student</u>	<u>Graduate Program</u>
Fall 2022	Ethan Golditch	Genome, Cell, and Developmental Biology
Fall 2022	Elyza Pilatowski-Herzing	Genome, Cell, and Developmental Biology
Fall 2022	Dorian Dale	Program in Neuroscience
Fall 2021	Sophie Fleck	Genome, Cell, and Developmental Biology
Fall 2021	Skylar Zemmer	Biochemistry
Spring 2021	William Hamilton	Genome, Cell, and Developmental Biology
Spring 2021	Prince Okah	Genome, Cell, and Developmental Biology
Spring 2021	Karly Miller	Genome, Cell, and Developmental Biology
Spring 2021	Justin Bryant	Genome, Cell, and Developmental Biology
Spring 2021	Siddhartha Yaddanapudi	Genome, Cell, and Developmental Biology

Undergraduate students mentored in my laboratory

<u>Inclusive Dates</u>	<u>Student</u>	<u>Major</u>
Fall 2022 – Present	Becca Knuteson	Human Biology
Fall 2022 – Present	Emily Dewitt	Biology
Spring 2022	Morgan Marsh	Biology
Spring 2022	Anya Hardwick	Biology
Spring 2021	Shelemiah Crockett	Biology

Graduate Student Advisory Committees

<u>Inclusive Dates</u>	<u>Student, Laboratory</u>	<u>Graduate Program</u>
2022 – Present	Anjaly Prasannajith, Walczak	Cell, Molecular, and Cancer Biology
2022 – Present	Suchi Ghosh, Innes	Genome, Cell, and Developmental Biology
2022 – Present	Victoria Lopez, Tracey	Genome, Cell, and Developmental Biology
2021 – Present	Ananya Mahapatra, Hundley	Genome, Cell, and Developmental Biology
2021 – Present	Yi-Ting Huang, Calvi	Genome, Cell, and Developmental Biology
2021 – Present	Shefali Shefali, Tennessen	Genome, Cell, and Developmental Biology

2021 – Present	Karly Miller, Kumar	Genome, Cell, and Developmental Biology
2021 – Present	Claude Jean-Guillaume, Kumar	Genome, Cell, and Developmental Biology
2020 – Present	Jasmine Warren, Kumar	Genome, Cell, and Developmental Biology
2020 – Present	Eric Kilbourn, Tennessen	Genome, Cell, and Developmental Biology
2020 – Present	Hunter Herriage, Calvi	Genome, Cell, and Developmental Biology
2020 – Present	Yasaman Heidarian, Tennessen	Genome, Cell, and Developmental Biology

Undergraduate Student Honors Thesis Advisory Committees

<u>Inclusive Dates</u>	<u>Student, Laboratory</u>	<u>Graduate Program</u>
2022 – Present	Naveen Chana, Shaw	Biology

First Year Graduate Student Faculty Mentor

<u>Inclusive Dates</u>	<u>Student</u>	<u>Graduate Program</u>
Fall 2021	Batula Robow	Genome, Cell, and Developmental Biology
Fall 2020	Disha Kuchangi	Genome, Cell, and Developmental Biology

TEACHING

UNDERGRADUATE

<i>Course #</i>	<i>Title</i>	<i>Term</i>	<i>Enrollment</i>
Biol-L312	Cell Biology	Spring 2023	63
Biol-L211	Molecular Biology	Spring 2022	74
Biol-L486	Advanced Cell Biology	Spring 2022	14
Biol-L486	Advanced Cell Biology	Spring 2021	4

GRADUATE

<i>Course #</i>	<i>Title</i>	<i>Term</i>	<i>Enrollment</i>
Biol-L586	Cell Biology	Spring 2022	9
Biol-L586	Cell Biology	Spring 2021	17