

July 2021

Kelsey Lewis **Curriculum Vitae**

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Pronouns: primarily she/her, but also welcome they/them

EDUCATION

2020 University of Florida, Gainesville, Florida
Ph.D., Biology, Advisor: Martin J. Cohn
2010 Mount Holyoke College, South Hadley, Massachusetts
B.A. with High Honors, Biology, Advisor: Stan Rachootin, Ph.D.
Minor: Conceptual Foundations of Science (i.e. history and philosophy of science)

POSTDOCTORAL APPOINTMENTS & AFFILIATIONS

2020-present, University of Wisconsin-Madison

Wittig Postdoctoral Fellow in Feminist Biology, Department of Gender & Women's Studies

Supervisor: Janet Hyde

Role: Designing and teaching courses in feminist biology: Biology and Gender (Fall 2020), Feminist Neuroscience (Spring 2021)

Honorary Fellow, Departments of Pediatrics and Urology

Supervisors: Jennifer Rehm, Walid Farhat

Roles: (1) Developing the new Gender and Sex Development Clinic at American Family Children's Hospital (UW-Madison), including designing and implementing stakeholder engagement

(2) Examining sex variation prevalence and frequency of medical interventions at UW

Member, Holtz Center for Science and Technology Studies

2021-present, NSF Undergraduate Biology Education Research Collaboration Network (RCN)

Member of Developmental Biology Team

Roles: (1) Evaluating developmental biology textbooks, (2) Discussing curricula with fellow developmental biologists, (3) Developing gender-inclusive undergraduate developmental biology curriculum goals

GRANTS AND FELLOWSHIPS

2021 Advancing Health Equity and Diversity (AHEAD) Pilot Award, Institute for Clinical and Translational Research, UW-Madison
2020 Wittig Postdoctoral Fellowship in Feminist Biology, UW-Madison
2019 American Dissertation Fellowship, American Association for University Women
2019 John Paul Olowo Memorial Fund Research Grant, UF Department of Biology
2014 Graduate Research Fellowship, National Science Foundation
2010 Morgan-Adams Alumnae Fellowship, *awarded but declined*, Mount Holyoke College
2009 Marieb Science Research Award (summer research stipend), Mount Holyoke College

PRIZES AND AWARDS

2019 Basic Science Prize, 3rd Hypospadias World Congress, *awarded but declined*
2019 Honorable Mention for Best Poster, North American Society for Comparative Endocrinology (NASCE) Biennial Meeting
2019 Madelyn Lockhart Dissertation Award, UF Association for Academic Women
2019 Department of Biology Graduate Student Teaching Award (UF)
2019 The Aubrey Gorbman Award for Best Student Oral Presentation, Division of Comparative Endocrinology, Society for Integrative and Comparative Biology (SICB)
2018 Three Minute Thesis (3MT) Top 10 Finalist and People's Choice Award (UF)
2014 Best Overall Talk Award, Southeast Regional Society for Developmental Biology

- 2012 Poster Award, 12th Conference on Limb Development and Regeneration, Mont-Tremblant, Quebec, Canada
- 2012 Nikon Small World Competition, Top 100 Photomicrograph "Image of Distinction"
- 2012 Winner, Federation of American Societies for Experimental Biology (FASEB) Bio-Art Scientific Art Competition
- 2010 Mary Lyon Scholar, Mount Holyoke College

PUBLICATIONS

- Orr, T. J., Burns, M., Hawkes, K., Holekamp, K. E., Hook, K. A., Josefson, C. C., Kimmitt, A. A., **Lewis, A. K.**, Lipshutz, S. E., Lynch, K. S., Sirot, L. K., Stadtmauer, D. J., Staub, N. L., Wolfner, M. F., and Hayssen, V. (2020). It takes two to tango: Including a female perspective in reproductive biology. *Integrative and Comparative Biology*. doi:10.1093/icb/icaa084
- Wan, Y., Otsuna, H., Holman, H. A., Bagley, B., Ito, M., **Lewis, A. K.**, Colasanto, M., Kardon, G., Ito, K., Hansen, C.. (2017). FluoRender: joint freehand segmentation and visualization for many-channel fluorescence data analysis. *BMC Bioinformatics*, 18(1).
- Gredler, M. L.*, Larkins, C. E.*, Leal, F.*, **Lewis, A. K.**, Herrera, A. M., Perriton, C. L., Sanger, T. J., Cohn, M. J. (2014). Evolution of external genitalia: Insights from reptilian development. *Sexual Development*, 8(5), 311-326.
- Lours-Calet, C., Alvares, L. E., El-Hanfy, A. S., Gandesha, S., Walters, S. H., Sobreira, D. R., Wotten, K. R., Jorge, E. C., Lawson, J. A., **Lewis, A. K.**, Tada, M., Sharpe, C., Kardon, G., Dietrich, S. (2014). Evolutionarily conserved morphogenetic movements at the vertebrate head-trunk interface coordinate the transport and assembly of hypopharyngeal structures. *Developmental Biology*, 390(2), 231-246.
- Wan, Y.*, **Lewis, A. K.***, Colasanto, M., van Langeveld, M., Kardon, G., Hansen, C. (2012). A Practical Workflow for Making Anatomical Atlases for Biological Research. *IEEE Computer Graphics and Applications*, Special Issue *Biomedical Applications*, 32(5), 70-80.

MANUSCRIPTS IN PREPARATION

- Lewis, A. K.** "‘Feminization’ of Mice and Men: Inappropriate applications of gendered terms in sex biology." Target journal: *Catalyst: Feminism, Theory, Technoscience*.
- Lewis, A. K.***, Wiscovitch, A. B.*, and Cohn, M. J. "Understanding mammalian sex differences through developmental biology." Invited review for *Development*.
- Lewis, A. K.**, Magoc, T., Bird, V. Y., Armfield, B. A., Cohn, M. J. "Prevalence of hypospadias and other congenital penile variation in a single center study." Target journal: *J Pediatric Urology*.
- Lewis, A. K.**, Zheng, Z., Svete, L. J., Kozuch, M., Nouri, M. Z., Ching, S., Klein, O. S., Denslow, N., Cohn, M. J. "The endocrine disruptor vinclozolin induces genital variation by modulating apoptosis in the genital tubercle." Target journal: *Environmental Health Perspectives*
- North, L. T., **Lewis, A. K.**, Cohn, M. J. "Prenatal vinclozolin exposure induces female-typical digit ratio in chromosomally-male mice." Target journal: *Andrology*.

TEACHING EXPERIENCE

University of Wisconsin-Madison

- Fall 2020. Lecturer, GWS 530: Biology & Gender
- Spring 2021. Lecturer, GWS 533: Feminist Neuroscience

University of Florida

- Spring 2019. Teaching Assistant, BSC 2010 Lab (Introductory Biology)
- Fall 2018. Teaching Assistant, Evolutionary, Developmental, and Regenerative Biology
- Summer 2018. Teaching Assistant, BSC2005 Online (Introductory Biology for Non-Majors)
- Spring 2014. Head Teaching Assistant, Evolutionary, Developmental, and Regenerative Biology
- Fall 2013. Teaching Assistant, BSC 2010 Lab (Introductory Biology)

Mount Holyoke College

Spring 2009. Teaching Assistant, Bio 226: Evolution

RESEARCH EXPERIENCE

University of Wisconsin-Madison

2020-present. Departments of Pediatrics & Urology

Supervisors: Jennifer Rehm (Pediatrics) & Walid Farhat (Urology)

Prevalence of sex variation and frequency of medical interventions at UW: Electronic medical record review study (UW-Madison Health Sciences IRB #2021-0684)

University of Florida

2013-2020. M.J. Cohn Lab, Departments of Biology and Molecular Genetics & Microbiology

(1) Effects of the endocrine disrupting fungicide vinclozolin on external genital development

(2) Effects of the endocrine disrupting fungicide vinclozolin on sexually different digit ratio

(3) Prevalence of congenital penile variation in Gainesville, Florida

(4) Inappropriate applications of gendered terms in sex biology

(5) The role of the androgen-responsive GTPase RhoA in urethral tubulogenesis

University of Utah

2010-2013. Lab technician, G. Kardon Lab, Department of Human Genetics

(1) Building a 3D interactive digital anatomical atlas of the limb musculoskeleton and generating a timecourse of embryonic limb musculoskeletal morphogenesis (mouse)

(2) The role of muscle connective tissue fibroblast marker *Tcf4* (*Tcf7L2*) in limb patterning (mouse)

Mount Holyoke College

2009-2010. Honors thesis with S. Rachootin.

Comparative anatomy of Trichoptera and Lepidoptera and researchers' confirmation bias in the study of early lepidopteran evolution.

2008-2009. G. Gillis' Biomechanics and Comparative Physiology Lab.

Took high speed videos of sugar gliders (*Petaurus breviceps*) and assisted in analyzing data.

Metro Public Health Department, Nashville, Tennessee

Summer 2007. Intern for Dr. Kimberlee Wyche-Etheridge, Family, Youth and Infant Health

Performed IRB-approved survey study of preconception health and awareness among patients.

TRAVEL AWARDS

2019	SICB Charlotte Mangum Travel Award to attend Society for Integrative and Comparative Biology (SICB) Annual Meeting
2019	National Women's Studies Association (NWSA) Travel Grant and Conference Registration Scholarship for 2019 NWSA Annual Conference
2019	UF Graduate Student Council Travel Grant to attend NWSA Annual Conference
2019	UF Graduate Student Council Travel Grant, <i>awarded but declined</i>
2018	SICB Charlotte Mangum Travel Award to attend SICB Annual Meeting
2018	UF College of Liberal Arts and Sciences Graduate Travel Award to attend Feminist Biology Symposium
2017	SICB Charlotte Mangum Travel Award to attend SICB Annual Meeting

PROFESSIONAL AFFILIATIONS

2019-	National Women's Studies Association (NWSA)
2013-	Society for Developmental Biology (SDB)
2013-	Society for Integrative and Comparative Biology (SICB)
2013-	American Association for the Advancement of Science (AAAS)
2011-2012, 2018-	Int'l Society for History, Philosophy, & Social Studies of Biology (ISHPSSB)
2010-	Sigma Xi, The Scientific Research Society (Student Member)

UNIVERSITY & COMMUNITY SERVICE

Conference & Symposium Service

2021-Present Co-organizer of Wisconsin Symposium on Feminist Biology (forthcoming, October

2021), UW-Madison
2020-Present Proposed co-organizer of Developmental Biology of Sex Differences Satellite Symposium for Society for Developmental Biology (SDB) 2022 conference (symposium previously accepted for 2020, re-submitting proposal for 2022)
January 2020 Provided Code of Conduct Allies Training at SICB 2020 conference

UW-Madison's Committee for GLBTQ+ People in the University

Postdoc Representative, 2020-Present

Community Education

January 2020, LGBTIQA+ Panel Participation, Society for Integrative & Comparative Biology (SICB) Annual Conference, Austin, TX
October 2019, Guest on UF's Chief Diversity Officer Antonio Farias' Podcast "Level Up"
October 2019, Talk & Panel Participation, LGBTQ+ STEM Day, Florida Museum (UF)
October 2019, WCJB TV20 News interview about LGBTQ+ STEM Day at Florida Museum (UF)
June 2019, Sex, Gender, & Sexuality Cultural Competency Panel, Clinical & Health Psychology (UF)
April 2019, "Sex is ????" Sex & Gender 101 Talk at Nerd Nite, C&G Brewery, Gainesville, FL

UF Biology Department's Diversity, Equity, and Inclusion (DEI) Committee

Graduate Student Representative, 2019-2020

UF Women in Science & Engineering (UF WiSE)

2019-2020 President
2019 Founded Feminist Science Reading Group
2018-2019 Vice President
2017- Member

Gainesville Ally Skills Network

October 2020, Co-led Ally Skills Workshop remotely for UF faculty in the natural sciences
October 2019, Co-led Ally Skills Workshop at UF for students and postdocs in the natural sciences
September 2019, "Allies 101: Why Allies?" Plenary Talk, Research Bazaar Gainesville (Invited)
September 2019, "Allies 101: Why Allies?" Talk, UF Biology Department Seminar Series (Invited)
May 2019, Co-founded Gainesville Ally Skills Network
May 2019, Participant in Train-the-Trainers Workshop held by Frameshift Consulting
February 2018, Participant in Ally Skills Workshop held by Frameshift Consulting

Political Outreach

Fall 2017, National Science Board Meeting with Congressman Ted Yoho: UF selected 6 NSF Graduate Research Fellows to meet with and present research to Congressman Ted Yoho at the first meeting of NSF-funded researchers with representatives, University of Florida

UF Natural Resources Diversity Initiative (UF NRDI)

Summer 2017-2018, science lessons through after-school program and summer camp at Eastside Community Center, Gainesville, FL

Developmental Biology Lesson for Kids

Wiles Elementary School, Science Symposium, Gainesville, FL, Spring 2018, 2017, 2015, Fall 2014
Foster Elementary School, Full STEAM Ahead Day, Gainesville, FL, Spring 2015
Levy County 4-H Young Explorers Program, Bronson, FL, Spring 2015

Science Fair Judging

Professional Academies Magnet at Lofton High School, Spring 2015, Fall 2014, Spring 2014
Mebane Middle School, Alachua, FL, Fall 2013
Santa Fe High School, Alachua, FL, Fall 2013
Hillside Middle School, Salt Lake City, UT, Spring 2013

GUEST LECTURES

February 2021, Guest lecture (asynchronous virtual), WST 3603 Sexualities Studies, UF
"The Biology (?) of Sex"

February 2020, Guest lecture, WST 3603 Sexualities Studies, UF

“The Biology (?) of Sex”

January 2020, Guest lecture, LAS 6938 Masculinities, Gender, and Environment, UF

“Letters to a Young Scientist: We Should All Be Feminists”

November 2019, Guest lecture, ZOO 3603C Evolutionary Developmental Biology, UF

“Mammalian Sex Determination and Variation”

April 2019, Guest lecture, WST 3610 Gender, Race, and Science, UF

“Sex is a Binary Spectrum Mosaic”

March 2019, Guest lecture, LAS 6938 Masculinities, Gender, and Environment, UF

“Sex is a Binary Spectrum Mosaic”

February 2019, Guest lectures, ENC 3254 Writing in the Disciplines: Feminism & Gender, UF

“Bodies Words that Matter: Biology in a Social World”

“Letters to a Young Scientist: We Should All Be Feminists”

November 2018, Guest lecture, ZOO 3603C Evolutionary Developmental Biology, UF

“Sex Determination and Sex Diversity”

Fall 2017, Guest presentation and panel discussion, LIT 4930 Feminist Theory, UF

“How can science inform our understanding of sex and gender?”

Summer 2016, Guest lecture, ENC 2210 Technical Writing, UF

“Use of visual aids in science”

ORAL PRESENTATIONS

November 2021 (forthcoming), Diversity and Science Symposium, Diversity and Science Lecture Series, University of California-San Diego (virtual, invited), Title TBD

November 2021 (forthcoming), Pediatrics Grand Rounds, UW Health, University of Wisconsin-Madison (virtual, invited), “Sex and Gender in 2021: Centering and Serving Patients”

June 2021, Urology Research Day, co-presented with Walid Farhat, University of New Mexico (virtual, invited), “Gender and Sex: Past, Present, and Future”

February 2021, Urology Resident Education Conference, UW Health, University of Wisconsin-Madison (virtual, invited), “Sex and Gender in 2021: What Do Clinicians Need to Know?”

December 2020, Urology Grand Rounds, UW Health, University of Wisconsin-Madison (virtual, invited), “Sex and Gender in 2020: What Do Clinicians Need to Know?”

October 2020, Diversity and Science Symposium, Diversity and Science Lecture Series, University of California-San Diego (virtual, invited), “Letters to a Young Scientist: We Should All Be Feminists”

January 2020, Society for Integrative and Comparative Biology (SICB), Austin, TX

Talk, “Feminist Biology: Of Moths, Mice, and Men” at StanFest, SICB symposium to honor retirement of Stan Rachootin, Mount Holyoke Professor

October 2019, Hypospadias International Society 3rd Annual World Congress, Children’s Hospital of Philadelphia, Philadelphia, PA

Invited Talk, “What do we know about chordee?”

Talk, “The endocrine disruptor vinclozolin induces penile malformations by modulating cell death during fetal development” *Basic Science Prize—awarded but declined*

May 2019, Society for Developmental Biology, Southeast Meeting, Birmingham, AL

Talk, “The endocrine disruptor vinclozolin induces penile malformations by modulating apoptosis in the genital tubercle”

April 2019, 3 Minute Thesis at the Florida Graduate School Conference, Miami, FL

3MT Talk, “Mechanisms of Nonbinary Sex” *One of two students selected to represent UF*

March 2019, Valdosta State University Department of Biology Seminar Series, Valdosta, GA
Seminar, “Prevalence and Developmental Mechanisms of Common Congenital Penile Anomalies”

January 2019, Society for Integrative and Comparative Biology (SICB), Tampa, FL

Talk, “The anti-androgenic fungicide vinclozolin disrupts sexual differentiation of the external genitalia” *Aubrey Gorbman Award for Best Oral Presentation*

December 2018, UF Biology Department Retreat, Marineland, FL

Lightning Talk, “Wanted: Feminist Scientists”

November 2018, 3 Minute Thesis Final Competition, University of Florida, Gainesville, FL

3MT Talk, “How a fungicide disrupts penis development” *People’s Choice Award*

October 2018, 3 Minute Thesis Preliminary Competition, University of Florida, Gainesville, FL

3MT Talk, “How a fungicide disrupts penis development” *Top Ten Finalist*

September 2018, Science at the Shore, Whitney Marine Lab (University of Florida), Marineland, FL
Talk, “How a fungicide disrupts penis development”

January 2018, Society for Integrative and Comparative Biology (SICB), San Francisco, CA
Talk, “Structural defects of the external genitalia induced by the environmental fungicide vinclozolin”

Spring 2017, Society for Developmental Biology, Southeast Meeting, Kennesaw, GA
Talk, “Penile anomalies induced by the anti-androgenic fungicide vinclozolin”

Spring 2014, Society for Developmental Biology, Southeast Meeting, Pine Mountain, GA
Talk, “A 3D Atlas of Limb Musculoskeletal Morphogenesis in Mouse” *Best Talk Award*

Spring 2010, Senior Symposium, Mount Holyoke College, South Hadley, MA
Talk, “Comparative anatomy of wings and antennae in Trichoptera and Lepidoptera: Homologies, Plesiomorphies— What, if anything, are orders?”

Fall 2009, Student Research Seminars, Mount Holyoke College, South Hadley, MA
Talk, “Comparative anatomy of wings and antennae in Trichoptera and Lepidoptera: Homologies, Plesiomorphies— What, if anything, are orders?”

SELECTED POSTER PRESENTATIONS

January 2020, Society for Integrative and Comparative Biology (SICB), Austin, TX
“Understanding Sex and Gender as a Scientist: Why It Matters Now More Than Ever”

November 2019, National Women’s Studies Association Annual Conference, San Francisco, CA
“Undoing [Biological] Sex: Understanding the Body as Mosaic”

May 2019, North American Society for Comparative Endocrinology (NASCE) Biennial Meeting, Gainesville, FL. “The endocrine disruptor vinclozolin induces penile malformations by modulating apoptosis in the genital tubercle” *Honorable Mention*

January 2019, Society for Integrative and Comparative Biology (SICB), Tampa, FL
“Feminization of Mice and Men: Incorrect uses of gendered terms in sex biology”

October 2018, Florida Genetics Symposium, University of Florida
“The endocrine disruptor vinclozolin induces penile malformations by modulating apoptosis in the genital tubercle”

October 2018, Wisconsin Symposium on Feminist Biology, University of Wisconsin-Madison
“Feminization of Mice and Men: Incorrect applications of gendered terms in sex biology”

September 2018, Science at the Shore, Whitney Marine Lab (University of Florida), Marineland, FL
Blitz Poster, “Feminization of Mice and Men: Incorrect uses of gendered terms in sex biology”

Spring 2016, Society for Developmental Biology, Southeast Meeting, Marineland, FL
“Loss of *RhoA* in urethral epithelium disrupts external genital development”

Spring 2013, Society for Developmental Biology, Southwest Meeting, Salt Lake City, UT
“A 3D Atlas of Limb Musculoskeletal Morphogenesis in Mouse”

Summer 2012, 12th Conference on Limb Development and Regeneration, Mont-Tremblant, Quebec. “A 3D Atlas of Limb Musculoskeletal Morphogenesis in Mouse” *Poster Award*

OTHER MEETING PARTICIPATION

Congenital Anomalies of the External Genitalia Workshop

May 2018, Workshop co-hosted by AUA and NIH NIDDK, held at American Urological Association, Linthicum, MD

Florida Urological Society Meeting

September 2018, Wesley Chapel, FL