

CURRICULUM VITAE

Daniel Aaron Gorelick

Assistant Professor of Pharmacology and Toxicology, School of Medicine
University of Alabama at Birmingham
1670 University Blvd, VH 254
Birmingham, AL 35294-0019

Nationality: USA

EDUCATION

B.A. Music	University of Pennsylvania	1997
Ph.D. Cellular and Molecular Medicine	Johns Hopkins University School of Medicine	2005

EMPLOYMENT

2012-present Assistant Professor, Department of Pharmacology and Toxicology, University of Alabama at Birmingham, Birmingham, AL

2009-2012 Postdoctoral Fellow, Department of Embryology, Carnegie Institution for Science, Baltimore, MD

2008-2009 Science writer/editor, Bureau of International Information Programs, US Department of State, Washington, DC (AAAS Science and Technology Policy Fellowship)

2005-2008 Postdoctoral Fellow, Department of Embryology, Carnegie Institution for Science, Baltimore, MD

1999-2000 Research Assistant, Department of Neurology, Cedars-Sinai Medical Center, Los Angeles, CA

1997-1999 Laboratory Technician, Department of Psychiatry, Johns Hopkins University School of Medicine, Baltimore, MD

PROFESSIONAL ACTIVITIES

2016 Co-chair, Society of Toxicologic Pathology Symposium: Aquatic Toxicology and Lessons for Prevention of Disease, Experimental Biology annual meeting

2016 Guest editor, *Zebrafish*, special issue on toxicology

2015-present Member, UAB Sustainability Committee

2015-present Leader, Toxicology Research Interest Group, Zebrafish Disease Models Society

2011-present Reviewer (ad hoc) for *BMC Biotechnology*, *Critical Reviews in Toxicology*, *CSH Protocols*, *Environmental Health Perspectives*, *Environmental Science and Technology*, *Molecular & Cellular Endocrinology*, *PLoS One*, *Proceedings of the Royal Society B*, *Zebrafish*

2008 Co-chair, 27th Carnegie Symposium: The Biology of Aging

HONORS AND AWARDS

2016 Outstanding New Environmental Scientist Award, NIEHS/NIH

2009 Ruth L. Kirschstein NRSA Postdoctoral Fellowship

2008 AAAS Science and Technology Policy Fellowship

2005 Student Commencement Speaker, Johns Hopkins University School of Medicine

2003 Travel Award, American Society of Biochemistry and Molecular Biology

PROFESSIONAL SOCIETY MEMBERSHIPS

2013-present American Heart Association

2010-present The Endocrine Society

2008-present American Association for the Advancement of Science

2008-2012 National Postdoctoral Association
Board of Directors, 2008-2010
Treasurer, 2010

2007-2010 Organization for the Study of Sex Differences

INVITED TALKS

2003 Institute for Complex Adaptive Matter Exploratory Workshop on the Physics of Neural Tissue, Santa Fe, NM. *Aquaporins and Brain Edema*

- 2010 National Postdoctoral Association Annual Meeting, Philadelphia, PA. *Science for Policy & Policy for Science*
- 2011 Department of Biological Sciences, Smith College, Northampton, MA. *Visualization of Estrogen Receptor Activation in Zebrafish*
- 2011 US Geological Survey Fish Health Branch, Kearneysville, WV. *Endocrine disruptors reveal tissue-specific differences in estrogen receptor activation*
- 2011 22nd Annual Vascular Biology and Hypertension Symposium, University of Alabama, Birmingham, AL. *Estrogen receptor activation in zebrafish heart valves*
- 2012 Children's Health Research Center, Sanford Research, Sioux Falls, SD. *Endocrine disruptors reveal tissue-specific differences in estrogen receptor activation*
- 2012 Department of Biology, Temple University, Philadelphia, PA. *Endocrine disruptors reveal tissue-specific differences in estrogen receptor activation*
- 2012 Department of Biological Sciences, Sam Houston State University, Huntsville, TX. *Endocrine disruptors reveal tissue-specific differences in estrogen receptor activation*
- 2012 Department of Biological Sciences, University of Texas, El Paso, TX. *Endocrine disruptors reveal tissue-specific differences in estrogen receptor activation*
- 2012 Organization for the Study of Sex Differences Annual Meeting, Baltimore, MD. *Fishing for sex differences*
- 2014 Baltimore Area Zebrafish Club, Carnegie Institution for Science, Baltimore, MD. *Estrogens regulate heart rate via a G-protein coupled estrogen receptor*
- 2015 Society for Environmental Toxicology & Chemistry (SETAC) Europe 25th annual meeting, Barcelona, Spain. *Zebrafish reporters of glucocorticoid and aryl hydrocarbon receptor activity*
- 2015 Department of Biology, Georgetown University, Washington, DC. *Using zebrafish to monitor environmental endocrine disrupting compounds*
- 2015 Program on Genomics of Differentiation, National Institute of Child Health and Human Development, NIH, Bethesda, MD. *Estrogens and embryonic heart rate: new roles for old hormones*
- 2016 University of California, Davis, CA. *Using zebrafish to monitor environmental endocrine disrupting compounds (invited)*
- 2016 Society of Toxicology 55th annual meeting, New Orleans, LA. *Acute estrogen exposure increases heart rate via a G protein-coupled estrogen receptor mechanism in zebrafish (invited)*
- 2016 American Society for Investigative Pathology / Experimental Biology annual meeting, San Diego, CA. *Environmental estrogens and cardiovascular development: New roles for old hormones (invited)*

Invited Talks Selected from Submitted Abstracts

- 2002 Gordon Research Conference on Barriers of the CNS, Tilton, NH. *Aquaporin-4 Square Arrays at the Blood-Brain Barrier*
- 2003 American Society of Biochemistry and Molecular Biology, San Diego, CA. *Role of Aquaporin-9 in Metabolism*
- 2010 9th International Conference on Zebrafish Development and Genetics, Madison, WI. *Visualizing Estrogen Receptor Activity in the Zebrafish Brain*
- 2010 Mid-Atlantic Regional Zebrafish Meeting, New York, NY. *Visualization of Estrogen Receptor Activation in Zebrafish*
- 2011 Mid-Atlantic Regional Society for Developmental Biology Meeting, Philadelphia, PA. *Tissue-specific differences in estrogen receptor activation during development*
- 2011 Gordon Research Seminar on Hormone Action in Development and Cancer, Smithfield, RI. *Zebrafish reporter reveals tissue-specific differences in estrogen receptor activation*
- 2012 10th International Conference on Zebrafish Development and Genetics, Madison, WI. *Tissue-specific estrogen receptor activation in response to environmental endocrine disruptors*
- 2013 5th Annual Strategic Conference of Zebrafish Investigators, Asilomar, CA. *Endocrine disrupting compounds reveal tissue-specific differences in estrogen receptor activation*

TEACHING

University of Alabama at Birmingham

GBS 704 Intro to Experimental Medicine 2012, 2014 (topic: genetic model organisms)

GBS 753	Pharmacology and Molecular Medicine 2013, 2014, 2015 (topics: environmental toxicology, model systems in pharmacology)
PHR 702	Graduate Pharmacology 2013 (topic: gonadal steroids)
GBS 710	Cell Signaling 2013 - present (topic: steroid signaling)
GBS 703	Research Analysis & Presentation 2014, 2015 (course director)
GBS 723	Model Systems for Genetic Analysis 2015 (topic: zebrafish transgenesis & chemical screens)
PHR 790	Advanced Pharmacology Seminar (Journal Club) 2014 - present (course director)
TOX 795	Advanced Toxicology Seminar (Journal Club) 2015 - present (course director)
MSTP 793	Basic Science Research Forum 2014, 2015 (topic: non-mammalian model organisms)

TRAINEES

Current Graduate Students

Shannon N. Romano, University of Alabama at Birmingham, Microbiology Theme PhD student

Former Students

Mashhood Wani, Summer in Biomedical Sciences Undergraduate Research Program, summer 2015

PUBLICATIONS

1. Bilato C, Pauly RR, Melillo G, Monticone R, **Gorelick-Feldman D**, Gluzband YA, Sollott SJ, Ziman B, Lakatta EG, Crow MT (1995) Intracellular signaling pathways required for rat vascular smooth muscle cell migration. Interactions between basic fibroblast growth factor and platelet-derived growth factor. *Journal of Clinical Investigation* 96:1905-15.
2. Holmes SE, O'Hearn EE, McInnis MG, **Gorelick-Feldman DA**, Kleiderlein JJ, Callahan C, Kwak NG, Ingersoll-Ashworth RG, Sherr M, Sumner AJ, Sharp AH, Ananth U, Seltzer WK, Boss MA, Viera-Saeker AM, Epplen JT, Riess O, Ross CA, Margolis RL (1999) Expansion of a novel CAG trinucleotide repeat in the 5' region of PPP2R2B is associated with SCA12. *Nature Genetics* 23: 391-2.
3. Carbrey JM*, **Gorelick-Feldman DA***, Kozono D, Praetorius J, Nielsen S, Agre P (2003) Aquaglyceroporin AQP9: solute permeation and metabolic control of expression in liver. *Proceedings of the National Academy of Sciences USA* 100: 2945-50. ***co-first author**
4. Furman CS*, **Gorelick-Feldman DA***, Davidson KG, Yasumura T, Neely JD, Agre P, Rash JE (2003) Aquaporin-4 square array assembly: opposing actions of M1 and M23 isoforms. *Proceedings of the National Academy of Sciences USA* 100: 13609-14. ***co-first author**
5. **Gorelick DA**, Praetorius J, Tsunenari T, Nielsen S, Agre P (2006) Aquaporin-11: A channel protein lacking apparent transport function expressed in brain. *BMC Biochemistry* 7:14.
6. **Gorelick DA**, Watson W, Halpern ME (2008) *Androgen receptor* gene expression in the developing and adult zebrafish brain. *Developmental Dynamics* 237: 2987-2995.
7. **Gorelick DA[#]**, Halpern ME (2011) Visualization of estrogen receptor transcriptional activation in zebrafish. *Endocrinology* 152(7): 2690-703. **[#]corresponding author**
8. Hao R, Bondesson M, Singh AV, Riu A, McCollum CW, Knudsen TB, **Gorelick DA**, Gustafsson JÅ (2013) Identification of estrogen target genes during zebrafish embryonic development through transcriptomic analysis. *PLoS One* 8(11): e79020.
9. Romano SN, **Gorelick DA** (2014) Semi-automated imaging of tissue-specific fluorescence in zebrafish embryos. *Journal of Visualized Experiments* (87): e51533

10. **Gorelick DA[#]**, Iwanowicz LR, Hung AL, Blazer VS, Halpern ME (2014) Transgenic Zebrafish Reveal Tissue-Specific Differences in Estrogen Signaling in Response to Environmental Water Samples. *Environmental Health Perspectives* 122(4): 356-62 **[#]corresponding author**
11. Carroll KJ, Esain V, Garnaas MK, Cortes M, Dovey MC, Nissim S, Frechette G, Cutting CC, Kwan W, Harris JM, Liu S, **Gorelick DA**, Halpern ME, Lawson N, Goessling W, North TE (2014) Estrogen Defines the Dorsal-Ventral Limit of VEGF Regulation to Specify the Location of the Hemogenic Endothelial Niche. *Developmental Cell* 29(4): 437-53
12. **Gorelick DA**, Halpern ME (2014) Probing the actions of endocrine disrupting compounds through genetic approaches in zebrafish. *Endocrine Disruptors* 2(1): e975547
13. **Gorelick DA**, Pinto CL, Hao R, Bondesson M (2016) Use of Reporter Genes to Analyze Estrogen Response: The Transgenic Zebrafish Model. *Methods in Molecular Biology* 1366:315-25.

RESEARCH AND TRAINING SUPPORT

Current Support (Direct Costs Listed)

NIH/NIEHS 1R01ES026337-01 - Investigating aryl hydrocarbon receptor-cofactor interactions that mediate toxicity

Jan 01, 2016 – Dec 31, 2020 \$1,476,000

Past Support

NIH/NICHD F32 HD061119 - Estrogen receptor activity in zebrafish mating behaviors

Sep 1, 2009 – Aug 31, 2012 \$167,826