

**CURRICULUM VITAE: Hillery C. Metz**  
Department of Ecology and Evolutionary Biology  
Princeton Neuroscience Institute  
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**EDUCATION**

**Ph.D.** 2015 **Organismic and Evolutionary Biology**, *Harvard University*

**B.S.** 2006 **Biology and Microbiology**  
Department of Biological Sciences, *University of Idaho*  
*summa cum laude*

**PROFESSIONAL APPOINTMENTS**

2016-present **Postdoctoral Research Associate**  
Department of Ecology and Evolutionary Biology, *Princeton University*

2015-2016 **HHMI Postdoctoral Research Associate**, *Harvard University*

2006-2008 **Postbaccalaureate Research Associate**, *National Institutes of Health*

**PUBLICATIONS**

Hu C, York R, **Metz HC**, Bedford NL, Fraser H, & Hoekstra HE. Behavior-dependent *cis*-regulation reveals genes and pathways associated with burrow evolution in *Peromyscus* mice. *In review*.  
<https://doi.org/10.1101/2021.09.27.462036>

**Metz HC**, Bedford NL, Pan YL, & Hoekstra HE. 2017. Evolution and genetics of precocious burrowing behavior in *Peromyscus* mice. *Current Biology* 27:3837-3845.  
<http://dx.doi.org/10.1016/j.cub.2017.10.061>

Covered by: Sheehan MJ, Miller CH, Vogt CC, & Ligon RA. 2018. Behavioral evolution: can you dig it? *Current Biology* 28(1):R19-R21.

**Metz HC** & Wray S. 2010. Use of mutant mouse lines to investigate origin of GnRH-1 neurons: lineage independent of the adenohypophysis. *Endocrinology* 151(2):766-773. <https://doi.org/10.1210/en.2009-0875>

**INVITED PUBLICATIONS**

**Metz HC**, Zung JL, & McBride CS. 2022. Quantifying *Ae. aegypti* odor preference in a 2-port olfactometer. *Cold Spring Harbor Protocols*. *In press*.

**Metz HC**, & McBride CS. 2018. Malaria parasites alter human odor to attract mosquito vectors. *Trends in Parasitology* 34(7):547-549. <https://doi.org/10.1016/j.pt.2018.05.003>

**Metz HC**, Manceau M, & Hoekstra HE. 2011. Turing patterns: how the fish got its spots. *Pigment Cell and Melanoma Research* 24(1):12-14. <https://doi.org/10.1111/j.1755-148X.2010.00814.x>

## MANUSCRIPTS

**Metz HC**, Miller AK, You J, Akorli J, Avila FW, Buckner EA, Kane P, Otoo S, Ponlawat A, Triana Chavez O, Williams KF, & McBride CS. Evolution of a mosquito's hatching behavior to match its human-provided habitat. *In revision*.

**Metz HC**, Mihalopoulos M\*, & McBride CS. Poor weather dampens mosquito host-seeking response.

## RESEARCH GRANTS AND FELLOWSHIPS

2014            **American Fellowship**, *American Association of University Women*  
2012            **DDIG**, *National Science Foundation*  
2009, 2011    **Mind Brain Behavior Initiative Research Awards**, *Harvard University*  
2008            **GRFP Predoctoral Fellowship**, *National Science Foundation*

## AWARDS AND HONORS

2013            Finalist, Hamilton Prize for best student presentation, *Society for the Study of Evolution*  
2012            Robert A. Chapman Memorial Scholarship, *Harvard University*  
2007-2008    Postbaccalaureate IRTA, *National Institutes of Health*  
2006            Outstanding Senior Award in Biological Sciences, *University of Idaho*  
2006            Jesse Buchanan Award, *University of Idaho*  
2005-2007    UGSP Scholarship, *National Institutes of Health*  
2005            SURF Undergraduate Research Fellow, *Washington State University*  
2004            BRIN Undergraduate Research Fellow, *University of Idaho*  
2004            McNair Scholarship, *US Department of Education*

## INVITED TALKS

2020            **Departmental Seminar**, *Department of Biology, Eastern Michigan University*  
Evolution of *Aedes aegypti* hatching behavior to match its human-provided habitat  
2020            **Integrated Behavioral Research Group**, *Princeton University*  
Evolution of a mosquito's hatching behavior to match its human-provided habitat  
2017            **EvoGroup Seminar**, *Princeton University*  
The evolution of human specialization in *Aedes aegypti*  
2015            **Neurolunch Series**, *Harvard Center for Brain Science*  
The genetic basis of behavior: burrow construction in wild mice  
2014            **Winter Conference on Brain Research**, *Steamboat Springs, CO*  
Evolvability of behavior: genes, development, and neural circuits  
2010            **Radcliffe Workshop: Evolution and Genetics of Adaptive Coloration**, *Harvard University*  
How the chipmunk got his stripes

## CONTRIBUTED TALKS AND POSTERS

- 2021 **Society for Integrative and Comparative Biology (SICB)**, *virtual*  
*Talk*: Evolution of a mosquito's hatching behavior to match its human-provided habitat
- 2017 **Evolution in Philadelphia Conference (EpiC)**, *Philadelphia, PA*  
*Poster*: Genetic analysis of mosquito bite itch
- 2014 **International Society for Behavioral Ecology**, *New York, NY*  
*Talk*: The genetic basis of behavior: burrowing in wild mice
- 2014 **Genes and Behavior Gordon Research Conference**, *Galveston, TX*  
*Talk*: Digging for the genetic basis of complex behavior: burrow construction in wild mice
- 2013 **Evolution Meetings**, *Snowbird, UT*  
*Talk*: Digging for the genetic basis of complex behavior: burrow construction in wild mice  
*\*Finalist for the Hamilton Prize for best graduate student presentation*
- 2012 **Evolution Meetings**, *Ottawa, ON, Canada*  
*Talk*: The genetic basis of behavior: burrowing in deer mice
- 2011 **Animal Behavior Society Meeting**, *Bloomington, IN*  
*Poster*: Ontogeny of complex behavior: burrowing in deer mice
- 2010 **Genes and Behavior Gordon Research Conference**, *Ventura, CA*  
*Poster*: Digging for the genetics of burrowing behavior in *Peromyscus*
- 2009 **Evolution Meetings**, *Moscow, ID*  
*Poster*: How the chipmunk got his stripes

## TEACHING

- 2019, 2020 **EEB 403: Genes and Neurons Underlying Behavioral Evolution**, *Princeton University*  
Guest Lecture: Unearthing the genetics of complex behavior
- 2017 **EEB 309: Evolutionary Biology**, *Princeton University*  
Guest Lecture: Unearthing the genetics of complex traits
- 2016 **LS1b: Genetics, Genomics and Evolution**, *Harvard University*  
Teaching Fellow
- 2011-2015 **OEB57: Animal Behavior**, *Harvard University* (3 semesters)  
Teaching Fellow
- 2014 **LS2: Evolutionary Human Physiology and Anatomy**, *Harvard University*  
Exam Grader
- 2013 **MCB80: Neurobiology of Behavior**, *Harvard University*  
Teaching Fellow
- 2005 **Introductory Biology**, *University of Idaho*  
Teaching Assistant
- 2004-2006 **TAAP Program Tutor**, *University of Idaho*

## PUBLIC PRESENTATIONS

- 2010 **Gallery Tour Leader**, Stripes, Spots, and Pigments in the Animal World  
Nights at the Museum, *Harvard Museum of Natural History*
- 2009 **Tour Leader**, sideWALK through Time: Exploring Paleobiology  
*Harvard Museum of Natural History*

## SERVICE AND OUTREACH

- 2020-2021 **Seminar Series Committee**, Postdoctoral Member  
*Princeton Neuroscience Institute, Princeton, NJ*
- 2019 **Volunteer Scientist**, Scientific Infographic Editor  
*Millennium School, San Francisco, CA*
- 2015, 2017 **Volunteer Scientist**, Science and the Media Project  
*Meridian Academy, Jamaica Plain, MA*
- 2014 **Scientific Art Exhibitor**, The Subjective Objective: Imaging Biology  
*Harvard Integrated Life Sciences (HILS)*
- 2013 **Mentor and Member**, Women in Science Technology Engineering and Math (WISTEM)  
*Harvard University*
- 2012 **Laboratory Tour Leader**, Explorations 2012 Educational Outreach Program (K-12)  
*Harvard Medical School*
- 2011 **Museum Docent Training**, Mammalian Pigmentation  
*Harvard Museum of Natural History*
- 2005 **Scholarship Committee**, sole undergraduate member  
*Department of Biological Sciences, University of Idaho*

## MENTORSHIP

- 2020-2021 Janet You, EEB Senior Thesis, *Princeton University*
- 2018-2019 Alexandra Miller, EEB Senior Thesis, *Princeton University*
- 2017-2018 Meredith Mihalopoulos, EEB Senior Thesis, *Princeton University*
- 2011-2014 Rachelle Ludwick, Julia Mason, Srishti Prabha, Sarah Scalia, Nico Maffey, and Lynn Shi Undergraduate research assistants, *Harvard University*
- 2010-2013 Yangshu Linda Pan, OEB Senior Thesis, *Harvard University*  
Museum of Comparative Zoology Grant-in-aid of Undergraduate Research (MCZ GUR),  
and Harvard College Research Program (HCRP) awardee  
Nominee for the Hoopes Prize for Outstanding Senior Thesis
- 2007-2008 Kimeya Ghaderi, Newcomb Fellow, *National Institutes of Health*

## PROFESSIONAL TRAINING

- 2011-2013 **Summer Institutes in Statistical Genetics**, *University of Washington*  
*Modules: Quantitative Genetics, QTL Mapping, Advanced QTL Mapping, R for Genetics and Bioinformatics, Gene Expression Profiling, Animal Genetic Data Analysis*
- 2008-2012 **Graduate School of Arts and Sciences**, *Harvard University*  
*Courses: Systematics, Paleobiology, Ecology & Evolution, Evolution of the Vertebrates, Adaptation, Molecular Neurobiology, Neurobiology of Motor Control*