

Ni Y. Feng
New Haven, CT
ni.feng@yale.edu
fengni.weebly.com

EDUCATION

2009-2016 **Ph.D.**, Neurobiology and Behavior, Cornell University
2003-2007 **B.S.**, University of California, Los Angeles
Major: Biology, Minor: Art History, *Magna Cum Laude*

RESEARCH POSITIONS & EXPERIENCE

2016-present **Postdoctoral Associate**, Cellular & Molecular Physiology, Yale University
Advisor: Elena Gracheva
Project: Fluid homeostasis in mammalian hibernation

2009-2015 **Graduate Student**, Neurobiology and Behavior, Cornell University
Advisor: Andrew H. Bass
Thesis: Biological rhythms of vocal behavior in fish: hormonal, neuronal, and genetic mechanisms

2005-2009 **Research Technician**, Physiological Sciences, UCLA
Advisor: Barney A. Schlinger
Thesis: Muscles are sites of androgen action in a tropical bird with an elaborate courtship display

TEACHING AND MENTORSHIP

2021 **Participant**, Yale Scientific Teaching Course (Theory & Practice of Scientific Teaching)

2017 **Mentor**, Women in Science at Yale (WISAY).

2016 **Co-organizer**, The Practice of Inclusive Teaching In STEM.
One-day workshop attended by 60 participants that included (1) a keynote lecture on theory of inclusive teaching in STEM, (2) panelists who presented on ways in which they have incorporated inclusive practices in their classrooms, and (3) a hands-on workshop for revising syllabi to include inclusive teaching practices.

2016 **Participant**, Inclusive Teaching Institute
Center for the Integration of Research, Teaching, and Learning, Cornell University

2016 **Participant**, Building Mentoring Skills for an Academic Career Certificate Program

2015 **Teaching Assistant**, Introduction to Neuroscience
Dept. of Neurobiology and Behavior, Cornell University
“Writing in the Majors” section focused on the neurobiology of disease
Student essay received Cornell’s Knight Institute’s Prize for Writing in the Majors

2011 **Teaching Assistant**, Introduction to Neuroscience
Dept. of Neurobiology and Behavior, Cornell University
“Writing in the Majors” section focused on the neurobiology of disease & regular sections.
Student essay received Cornell’s Knight Institute’s Prize for Writing in the Majors

2009 **Teaching Assistant**, Environmental Animal Physiology
Dept. of Ecology and Evolutionary Biology, UCLA

2009 **Teaching Assistant**, Vertebrate Biology
Dept. of Ecology and Evolutionary Biology, UCLA

2006 **Life Sciences Tutor**, Life: Concepts and Issues
Evolution, Ecology, and Biodiversity
UCLA Academic Advancement Program for underrepresented students

Mentees:

Graduate students

2019 **Maddy Junkins** - Immunohistochemistry, behavioral experiments

2018 **Sarah Mohr** - Dissections, molecular techniques, mouse colony maintenance

Undergraduate students and post-graduate trainees

2020-present **Lyle Murphy** - Immunohistochemistry, confocal microscopy, video analysis

2017-2018 **Jon Matson** - Video analysis

2018 **Vanessa Zhang** - Video analysis, behavioral experiments

2014-2016 **Clara Liao** - Sound analyses, molecular techniques; senior thesis won the Robert R. Capranica Undergraduate Research Award for Outstanding Honors Thesis in Neuroethology; now graduate student at Yale University Department of Neuroscience

2014-2015 **Frenda Yip** - Sound analyses

2014-2015 **Grace Ahn** - Sound analyses

2012-2013 **Gbambele Kone** - Molecular techniques; senior thesis received Highest Honors; now medical student at Weill Cornell Medical College

PUBLICATIONS

* Undergraduate author

Equal contribution

- 2021 Tripp JA[#], **Feng NY**[#], Bass AH. 2021. To hum or not to hum: Neural transcriptome signature of courtship vocalization in a teleost fish. *Genes, Brain and Behavior*, e12740
- 2019 **Feng NY**, Junkins MS, Bagriantsev SN, Gracheva EO. 2019. Osmolyte depletion and thirst suppression allow hibernators to survive for months without water. *Current Biology* 29:3053-3058
- Cover image
 - Dispatch by Sandra L. Martin
 - Highlighted in *Science*
- 2019 **Feng NY**, Marchaterre MA, Bass AH. 2019. Melatonin receptor expression in vocal, auditory and neuroendocrine centers of a highly vocal fish, the plainfin midshipman (*Porichthys notatus*). *Journal of Comparative Neurology*. 1-16
- 2018 Bass AH, Rice AN, **Feng NY**. 2018. Singing Behavior in Fishes: Hormones, Neurons, and Evolution. *Encyclopedia of Animal Behavior* 2nd edition
- 2018 Liao C^{*}, **Feng NY**, Bass AH. 2018. Antioxidant Gene Expression in Vocal Hindbrain of a Teleost Fish. *bioRxiv* 354977
- 2018 Tripp JA, **Feng NY**, Bass AH. 2018. Behavioral tactic predicts preoptic-hypothalamic gene expression more strongly than developmental morph in fish with alternative reproductive tactics. *Proceedings of the Royal Society B*. 285: 20172742.
- 2017 **Feng NY**, Bass AH. 2017. Neural, hormonal, and genetic mechanisms of alternative reproductive tactics: vocal fish as model systems. In: *Hormones, Brain, and Behavior 3rd Edition* (D. Pfaff, M. Joëls, A. Auger, C. Auger, S. Lightman, J. Balthazart, R. de Kloet and G. Gonzalez-Mariscal, Eds.) Elsevier. 2:47-68
- 2016 **Feng NY**, Bass AH. 2016. "Singing" fish rely on circadian rhythm and melatonin for the timing of nocturnal courtship vocalization. *Current Biology*. 26(19): 2681-2689
- Recommended by Faculty of 1000
 - Dispatch by Walter Wilczynski and Deborah I. Lutterschmidt
 - Highlighted in *Journal of Experimental Biology*
 - Featured in news outlets including BBC News, Reuters, The Washington Post, and ScienceDaily
- 2015 Fergus DJ, **Feng NY**, Bass AH. 2015. Gene expression underlying enhanced, steroid-dependent auditory sensitivity of hair cell epithelium in a vocal fish. *BMC Genomics*. 16:782
- 2015 **Feng NY**, Fergus DJ, Bass AH. 2015. Neural transcriptome reveals molecular mechanisms for temporal control of vocalization across multiple timescales. *BMC Genomics*. 16: 417

- 2015 Bass AH, Chagnaud BP, **Feng NY**. 2015. Comparative Neurobiology of Sound Production in Fishes. In: *Sound Communication in Fishes. Animal Signals and Communication*. Vienna: Springer Vienna, Vol. 4. pp. 35–75
- 2014 **Feng NY**, Bass AH. 2014. Melatonin action in a midbrain vocal-acoustic network. *Journal of Experimental Biology* 217: 1046-1057
- 2014 Barske J, Fusani L, Wikelski M, **Feng NY***, Santos M, Schlinger BA. 2014. Energetics of the acrobatic courtship in male golden-collared manakins (*Manacus vitellinus*). *Proceedings of the Royal Society B: Biological Sciences*. 281: 20132482
- 2012 Fuxjager MJ, Schultz D, Barske J, **Feng NY***, Fusani L, Mirzatoni A, Day LB, Hau M, Schlinger BA. 2012. Spinal motor and sensory neurons are androgen targets in an acrobatic bird. *Endocrinology*. 153(8): 3780-3791
- 2010 Katz A, Oyama RK, **Feng NY***, Chen X, Schlinger BA. 2010. 11 β -hydroxysteroid dehydrogenase type 2 in zebra finch brain and peripheral tissues. *General and Comparative Endocrinology*. 166(3): 600-605
- 2010 **Feng NY***, Katz A, Day LB, Barske J, Schlinger BA. 2010. Limb muscles are androgen targets in an acrobatic tropical bird. *Endocrinology*. 151(3): 1042-1049
- Featured in Endocrine News
- 2008 **Feng NY***, Katz A, Day LB, Barske J, Schlinger BA. 2008. Muscles are sites of androgen action in a tropical bird with an elaborate courtship display. *UCLA Undergraduate Science Journal*

AWARDS & GRANTS

- 2020 **Winner**, Warren Alpert Foundation Distinguished Scholars Fellowship (\$400,000)
- 2020 **Awardee**, Early Career Invited Lecture Award, The University of British Columbia
- 2019 **Nominee**, Yale internal competition for Warren Alpert Foundation Distinguished Scholars Fellowship
- 2019 **New Investigator Award**, Society for Behavioral Neuroendocrinology (\$500)
- 2019 **Finalist**, Life Sciences Research Foundation
- 2018 **1st place poster**, Department of Cellular & Molecular Physiology Retreat, Yale University (\$150)
- 2018 **2nd place poster**, Department of Neuroscience Retreat, Yale University (\$100)
- 2018 **Finalist**, Life Sciences Research Foundation
- 2014 **Doctoral Dissertation Improvement Grant**, National Science Foundation (\$19,201)
- 2013 **Early Career Forum Travel Award**, The Endocrine Society
- 2013 **Research Travel Grant**, Cornell Graduate School (\$1,800)
- 2012 **Center Vertebrate Genomics Scholarship**, Cornell University (\$15,000)
- 2012 **Ta-Chung & Ya-Chao Liu Memorial Award**, Cornell University (\$3,000)
- 2011 **2nd place poster**, Graduate Women in Science Symposium, Cornell University
- 2010-2014 **Student Research Grant in Animal Behavior**, Neurobiology and Behavior, Cornell University (\$4,000)
- 2010,12,13 **Sigma Xi Research Grant**, Cornell Chapter (\$3,000)
- 2010 **Honorable Mention**, NSF Graduate Research Fellowship Program
- 2010 **Travel scholarship**, Society for Advancing Hispanics/Chicanos and Native Americans in Science national conference (SACNAS) national conference
- 2008 **2nd place poster**, Biology Research Symposium, Department of Ecology and Evolutionary Biology, UCLA
- 2007 **Amgen Scholars Program**, UCLA and Amgen Foundation (\$3,500)
- 2007 **Dean's Prize for Excellence in Undergraduate Research**, UCLA (\$300)
- 2006 **Undergraduate Research and Teaching Scholarship**, UCLA (\$5,000)
- 2003-2007 **UCLA Freshman Alumni Scholarship**, UCLA (\$4,000)

LEADERSHIP & SERVICE

- 2020-present **Committee member**, Yale Department of Cellular and Molecular Physiology Postdoc Committee
- 2020 **Committee member**, Yale Department of Neuroscience Postdoc Committee

- 2018 **Participant**, Yale Alumni Association Leadership Conference
- 2016-2018 **Co-Chair and founder**, Advocacy Subcommittee, Yale Postdoctoral Association (YPA)
Organized Postdoc Community Forum, bystander intervention workshop, Advocacy Committee Mixer, Bystander Intervention workshop, and Road to Academia workshop for postdocs and graduate students. Attended National Postdoctoral Association Annual Meeting to represent YPA. Collected, analyzed, and presented demographics data on Yale postdoc population. Acted as a liaison between Yale postdocs and campus organizations, including the Deputy Dean for Diversity and Inclusion, Title IX office, Ombudsperson, Office of International Students and Scholars, and Yale Office for Postdoctoral Affairs.
- 2016-2017 **Co-Chair**, Climate and Diversity Committee, Cellular & Molecular Physiology, Yale University
Collected and analyzed demographics department data; help the department chair to organize a department-wide discussion about climate
- 2016 **Co-Organizer**, Diversity Forum, Neurobiology and Behavior (NBB)
Gathered demographics data to identify best ways to recruit and/or retain a diverse graduate student body. Organized an open forum for postdocs and graduate students to brainstorm actionable ways to increase diversity and inclusiveness in NBB. Following up with one of the actionable items, we collaborated with Ecology and Evolutionary Biology to obtain university funding for hosting a pre-application “preview” weekend to encourage underrepresented minority and first-generation college students to apply to our departments.
- 2013-2014 **Graduate and Professional Student Assembly representative**,
Department of Neurobiology and Behavior

SCIENTIFIC OUTREACH

- 2018-2020 **Lecturer**, Pathway to Science’s “Sensory Physiology Club”, Yale University
- 2014-2015 **Brochure and Publicity Chair**, Expanding Your Horizons (EYH)
EYH is a one-day conference that aims to inspire 6th-9th grade girls to pursue careers in STEM fields. I designed the Brochure and postcards for this year’s EYH conference.
- 2014 **Leader**, Cornell Kids Science Day “Science of Sound” table
- 2011-2014 **Science of Sound workshop leader**, EYH
Developed a workshop titled “*The Science of Sound*” that explores properties of sound through creative and hands-on activities, demonstrations, and presentations on how animals use sound to communicate.
- 2011 **Applefest poster**: “An Underwater Chorus”
Presented a poster and brought preserved specimens to educate the local public on fish acoustic communication at the Ithaca apple festival.
- 2010&2011 **Special lecture**, Northeast Elementary, Ithaca
In collaboration with Andy Bass, developed a special presentation titled “*You and Your Brain*” to be given annually aimed to stimulate interest in the brain and animal behavior.
- 2010 **Volunteer**, Ithaca *Sciencenter*

PROFESSIONAL SERVICE

- 2020 **Reviewer**, *Hormones and Behavior*
- 2020 **Reviewer**, *Genes, Brain and Behavior*
- 2018 **Reviewer**, *Physiology & Behavior*
- 2017 **Reviewer**, *Journal of Comparative Physiology A*
- 2017 **Reviewer**, *Hormones and Behavior*
- 2016 **Reviewer**, *Royal Society Open Science*
- 2014 **Reviewer**, *The Journal of Neuroscience*
- 2013 **Reviewer**, *Endocrinology*

PRESENTATIONS

- 2020 **Invited Speaker**, Early Career Invited Lecture Award, Dept. of Zoology, University of British Columbia

2019 **Poster:** Osmolyte depletion and thirst suppression allow hibernators to survive for months without water.
Feng NY, Junkins MS, Bagriantsev SN, Gracheva EO
Smith Family Foundation Poster Session, Boston, MA

2019 **Poster:** Osmolyte depletion and thirst suppression allow hibernators to survive for months without water.
Feng NY, Junkins MS, Bagriantsev SN, Gracheva EO
Neuroday, Yale University, New Haven, CT

2019 **Invited Speaker,** Society for Behavioral Neuroendocrinology, Bloomington, IN

2019 **Speaker,** Yale Postdoctoral Association Symposium, New Haven, CT

2019 **Invited Speaker,** Hormones for Breakfast Series, University of Massachusetts Amherst, MA

2019 **Speaker,** Yale Neuroscience Research In Progress seminar series, New Haven, CT

2018 **Poster,** Yale Department of Cellular & Molecular Physiology Retreat, MA

2018 **Poster,** Yale Department of Neuroscience Retreat, MA

2018 **Speaker,** Yale Postdoctoral Association Symposium, New Haven, CT

2018 **Poster:** Advocating for Postdocs on Campus: Successes and Challenges from the Yale Postdoctoral Association.
Ayala-Lopez N, Feng NY, Milovanovic D.
National Postdoctoral Association Annual Meeting, Cleveland, OH

2016 **Speaker,** Yale Neuroscience Research In Progress seminar series, New Haven, CT

2015 **Poster:** The Circadian Vocal Rhythm Of A Singing Fish.
Feng NY, Ahn G, Yip F, Liao C, Bass AH.
International Bioacoustics Congress, Murnau, Germany

2015 **Poster:** Melatonin Receptors Are Abundant In Multiple Sensory, Audio-Vocal And Neuroendocrine Centers In A Highly Vocal Fish.
Feng NY, Marchaterre MA, Bass AH.
Society for Behavioral Neuroendocrinology, Asilomar, CA

2014 **Poster:** Daily And Seasonal Gene Expression Patterns In A Hindbrain Vocal Motor Nucleus: Insights Into The Molecular Basis Of Vocal Patterning.
Feng NY, Fergus DJ, Bass AH.
Society for Neuroscience meeting, Washington DC.

2013 **Poster:** Melatonin Action In Distinct Midbrain Regions That Initiate Short And Long Duration Vocal Output In A Teleost Fish.
Feng NY, Bass AH.
The Endocrinology Society meeting, San Francisco, CA

2011 **Poster:** Melatonin Regulation Of Daily Rhythms In Vocal Activity Of A Teleost Fish.
Feng NY, Fergus DJ, Bass AH.
Society for Neuroscience meeting, Washington DC.

2011 **Poster:** Melatonin Regulation of Daily Rhythms in Vocal Activity of a Teleost Fish.
Feng NY, Fergus DJ, Bass AH.
Graduate Women In Science conference, Cornell University, Ithaca, NY.

2010 **Speaker:** Androgens and Muscles in a Tropical Bird with an Elaborate Courtship Display.
SACNAS national conference, Anaheim, CA

2009 **Poster:** Androgens and Muscles in a Tropical Bird with an Elaborate Courtship Display.
Feng NY, Katz A, Schlinger BA.
Society for Behavioral Neuroendocrinology, East Lansing, MI

2008 **Poster:** Androgens and Muscles in a Tropical Bird with an Elaborate Courtship Display.
Feng NY, Katz A, Schlinger BA.
Biology Research Symposium, Department of Ecology and Evolutionary Biology, UCLA

2007 **Poster:** Androgens and Muscles in a Tropical Bird with an Elaborate Courtship Display.
Feng NY, Katz A, Schlinger BA.
Undergraduate Science Poster Day, UCLA

GRADUATE COURSES TAKEN

2011	Experimental Molecular Neurobiology (A+)
2010	Principles of Neurophysiology (A+)
2010	Fundamentals of Endocrinology (A)
2009	Molecular Neurophysiology (A+)