

# Lauren Fink

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## Curriculum Vitae

Jan. 2019

### EDUCATION

- 2019\* Ph.D. Candidate\*, Neuroscience, University of California, Davis (UCD), CA, USA
- 2017 M.Sc., Neuroscience, University of California, Davis, CA, USA
- 2014 M.Phil., Music Studies, University of Cambridge, UK
- 2013 B.M., Percussion Performance, University of Cincinnati College Conservatory of Music, OH, USA, *summa cum laude*

### RESEARCH EXPERIENCE

- 2014 – Graduate Student Researcher. Janata Lab, Center for Mind & Brain, UCD  
Dissertation topic: Predicting sensorimotor synchronization and attention to music using a linear oscillator model, eye-tracking, and electroencephalography.
- 2017 (Aug.) Visiting Fellow. Max-Planck-Institute for Empirical Aesthetics, Frankfurt, Germany  
Project: Comparing Pupil Labs and SMI mobile eye-tracking glasses in the concert hall.
- 2016 (Aug.) Graduate Research Exchange Student. Swartz Center for Computational Neuroscience, University of California, San Diego  
Project: Simultaneous eye-tracking and electroencephalography during an auditory deviance detection task.
- 2016 (Jul.) Visiting Fellow. Center for Computer Research in Music and Acoustics, Stanford University  
National Academies Keck Futures Initiative: Fostering Empathy and Improving Focus Through the Groove Enhancement Machine: Facilitating Sensorimotor Coordination and Cooperation Among Groups of Individuals.
- 2015 Graduate Rotation Student. Geng Lab, Center for Mind & Brain, UCD  
Project: Characterization of eyeblinks and pupil diameter during an auditory deviance detection task.
- 2015 Graduate Rotation Student. Ranganath Lab, Center for Neuroscience, UCD  
Project: Goal relevance in temporal contexts: the role of the fronto-striatal-hippocampal circuit.
- 2013-14 Graduate Student Researcher. Centre for Music & Science, U. Cambridge  
Masters Thesis: Music modulates eyeblinks: An examination of temporal coordination.
- 2012 Undergraduate Research Fellow. College of Medicine, U. Cincinnati  
Project: The emotional reactivity of mice over-expressing human wild-type alphasynuclein: An ultrasonic vocalization pilot study.
- 2011 Undergraduate Research Fellow. Dept. of Philosophy, U. Cincinnati  
Project: False Belief Attribution: An investigation of the Neural Pattern Account.

## TEACHING EXPERIENCE

University Writing Program, UCD

- Popular Science and Technology Writing (Winter, 2017), Teaching Assistant
- Visual Rhetoric (Fall, 2018), Teaching Assistant

Dept. of Neurobiology, Physiology, & Behavior, UCD

- Human Brain & Disease (Spring 2017), Teaching Assistant
- Neurobiology (Fall 2016), Teaching Assistant
- Neurobiology of Speech (Spring 2015), Reader

Humanities Program, UCD

- Cultural History of the Blues (Spring 2016), Teaching Assistant

Dept. of Psychology, UCD

- Psychology of Music (Fall, 2015; Fall 2017), Teaching Assistant
- Research Methods (Winter, 2015), Teaching Assistant

Private Percussion Teacher, Youngstown & Cincinnati, OH (2008-2014)

Drum Line Instructor, Liberty High School, Youngstown, OH (2013)

## WORK EXPERIENCE

- 2018 – Graduate Student Researcher. UC-LEADS (Leadership Excellence through Advanced Degrees), *University of California, Office of the President*. Assist under-represented undergraduates in preparing for graduate school, by offering one-on-one mentorship, teaching a research methods course, providing application assistance, and helping secure summer mentored research experiences.
- 2015 – Graduate Writing Fellow, University Writing Program, *U. of California, Davis*. Manage a team of 6 other fellows and liaise between fellows, faculty, IT, and funding agencies. • Hold one-on-one consultations, group writing retreats, and writing workshops. • Conduct research on graduate student writing and present at international conferences.
- 2012-13 Percussion Accompanist, Dance Division, *U. of Cincinnati College-Conservatory of Music*. Compose and play percussion music for modern dance classes.
- 2011-13 Intern. Archives & Rare Books Library, *U. of Cincinnati*. Catalog and create finding aids for new collections. • Assist researchers with archival research. • Develop web content to advertise collections.

## GRANTS / SCHOLARSHIPS / FELLOWSHIPS

- 2018 Graduate Student Association Travel Award (\$500)
- 2018 ARCS Foundation Achievement Research Award for College Scientists (\$11,000)
- 2018 Lesbians Who Tech Summit Scholarship (\$250)
- 2017 Graduate Student Association Travel Award (\$500)
- 2017 ARCS Foundation Achievement Research Award for College Scientists (\$11,000)
- 2017 UC Davis Diversity Inclusion and Innovation Grant. "SOMA: Seminar Outreach for Minority Advocacy." PI: Lauren Fink (\$5,000)

2016-17	UC Davis & Humanities Graduate Research Award (\$3,000)
2016-17	Lead Graduate Writing Fellowship, UCD (\$3,600)
2016	University of California Music Experience Research Community Initiative: Research Exchange Grant – UC San Diego (\$1,200)
2016	Ling-Lie Chau Student Award for Brain Research, UCD (\$1,000)
2016	University of California Music Experience Research Community Initiative: Research Exchange Grant – UC San Diego (\$2,300)
2016	University Writing Program Travel Award, UCD (\$1,200)
2015	University of California Music Experience Research Community Initiative Symposium Travel Award (\$1,200)
2015-16	Graduate Writing Fellowship, UCD (\$3,000)
2014-15	Neuroscience Graduate Group Fellowship, UCD (\$28,680)
2014	William Barclay Squire Fund/Wolfson College Travel Grant, U. Cambridge (£600)
2013-14	Cambridge Overseas Trust, Wolfson Cambridge Scholarship, U. Cambridge (£7000)
2012-13	U. of Cincinnati Marshall Scholarship Finalist
2012-13	Undergraduate Research Council Grant, U. Cincinnati (\$3,000)
2012	Summer Undergraduate Research Fellowship, U. Cincinnati (\$4,000)
2011	Summer Undergraduate Mentored Research Grant, U. Cincinnati (\$3,000)
2009-13	Cincinnati Scholarship, U. Cincinnati (\$32,000)
2009-13	College-Conservatory of Music Scholarship, U. Cincinnati (\$4,000)
2009-13	Fouces M. Luley Music Scholarship (\$8,000)

## PUBLICATIONS

- Fink, L.** & Lange, E., Groner, R. (2019). The application of eye-tracking in music research. *Journal of Eye Movement Research*, 11(2):1. DOI: 10.16910/jemr.11.2.1.
- Fink, L.**, Hurley, B., Geng, J. & Janata, P. (2018). A linear oscillator model predicts dynamic temporal attention and pupillary entrainment to rhythmic musical patterns. *Journal of Eye Movement Research*, 11(2):12. DOI: 10.16910/jemr.11.2.12.
- Hurley, B., **Fink, L.**, & Janata, P. (2018). Mapping the dynamic allocation of attention in musical patterns. *Journal of Experimental Psychology: Human Perception & Performance*. DOI: 10.1037/xhp0000563
- Fink, L.** (2017). Chance operations in neuroscience. In Lane, J. and L. Fink (Eds.), *Allen Otte Folio*, pp. 17-20.
- Fink, L.** (2016). The Greatest. *Pulse Special Issue of Ethnomusicology Review/ Sounding Board*.

## EDITED VOLUMES

- Fink, L.** & Lange, E., Eds. (2018). *Special Issue on Music & Eye-Tracking*. Journal of Eye Movement Research. Vol. 11(2).
- Fink, L.**, Ed. (2017). *Explorations: The UC Davis Undergraduate Research Journal* (vol. 19). The Regents of the University of California.
- Lane, J. & **L. Fink**, Eds. (2017). *Allen Otte Folio*.

## CONFERENCE PRESENTATIONS

- Fink, L.,** Alexander, P., Janata, J. (2019, March). Bringing groups of people into greater temporal and psychological synchrony using a multi-person adaptive metronome. *Poster presented at the Cognitive Neuroscience Society Meeting, San Francisco, CA.*
- Mikovits, M., Sperber, L., **Fink, L.** & Prebel, J. (2019, March). Writing Fellows as Agents of Transfer: Training in Threshold Concepts to Support Campus-Wide Sites of Writing. *Symposium presented at the College Composition and Communication Convention, Pittsburgh, PA.*
- Fink, L.,** Lange, E., Janata, P. (2018, July). The pupil entrains to prominent periodicities in music. *Talk presented at the International Conference on Music Perception & Cognition, Graz, Austria.*
- Fink, L.,** Hurley, B., Geng, J., & Janata, P. (2018, May). Predicting attention and motor responses to musical patterns. *Poster presented at the Stanford Music & Brain Symposium, Palo Alto, CA.*
- Fink, L.,** Ribeiro, J., & White, V. (2018, March). Transforming graduate writing experiences: A new Writing Across the Curriculum (WAC) certificate program. *Symposium presented at the College Composition and Communication Convention, Kansas City, MO.*
- Lange, E. & **Fink, L.** (2017, August). Symposium: Using eye-tracking and pupillometry to study rhythmic processing in music and dance. *European Conference on Eye Movements, Wuppertal, Germany.*
- Fink, L.,** Hurley, B., Geng, J., & Janata, P. (2017, August). Predicting attention to auditory rhythms using a linear oscillator model and pupillometry. *Talk presented at the Conference on Music & Eye-Tracking, Frankfurt, Germany.*
- Fink, L.,** & Alexander, P., & Janata, P. (2017, July). Fostering Empathy and Improving Focus Through the Groove Enhancement Machine: Facilitating Sensorimotor Coordination and Cooperation Among Groups of Individuals. *Demonstration presented at the National Academies Keck Futures Initiative Art, Science, Engineering, and Medicine Mid-Cycle Grant Meeting, Boston, MA.*
- Hurley, B., **Fink, L.,** & Janata, P. (2017, March). A resonator model predicts temporal orienting in rhythmic music. *Proceedings of the Cognitive Neuroscience Society Annual Meeting.*
- Bright, A., Singleton, J., **Fink, L.,** & Rodger, K. (2017, March). Cultivating a Rhetorical Consciousness: Supporting Graduate Student Writers Across the Curriculum. *Symposium presented at the College Composition and Communication Convention, Portland, OR.*
- Fink, L.,** Hurley, B., Geng, J. & Janata, P. (2016, July). Pupillary and eyeblink responses to auditory stimuli index attention and sensorimotor coupling. *Proceedings of the 14<sup>th</sup> International Conference for Music Perception & Cognition*, pg. 788.
- Hurley, B., **Fink, L.,** & Janata, P. (2016, July). Predicting temporal attention in music with a damped oscillator model. *Proceedings of the 14<sup>th</sup> International Conference for Music Perception & Cognition*, pg. 782
- Fink, L.** & Rodger, K. (2016, June). Mapping neuroscience through professional writing. *Talk presented at the International Writing Across the Curriculum Conference, Ann Arbor, MI.*
- Fink, L.** (2015, July). Eyeblinks as biomarkers of temporal coordination during music cognition. *Poster presented at the Rhythm Perception & Production Workshop, Amsterdam, Netherlands.*
- Fink, L.,** Niemeyer, T., Jones, S., Larabee, Z., & Schuette, P. (2014, November). Oscillator Etudes. *Performance premiere at the Percussive Arts Society International Convention, Indianapolis, IN.*

**Fink, L. & Mazman, A.** (2013, July). False belief attribution: An investigation of the neural pattern account. *Poster presented at the Society for Philosophy and Psychology Conference, Providence, RI.*

## **WORKSHOPS, PUBLIC TALKS, & SELECT PERFORMANCES**

- Feb. 2019      Invited Talk. “Modeling pupillary entrainment to music and absorptive music listening experiences.” Center for Computer Research in Music and Acoustics, Stanford University.
- Sept. 2018    Speaker. “Pupillometry as an auditory research tool.” UC Davis Neuroscience Retreat, Bodega Bay Marine Laboratory, Bodega Bay, CA.
- Apr. 2018      Invited Talk. “The Groove Enhancement Machine.” Center for Computer Research in Music and Acoustics, Stanford University.
- Mar. 2018      Invited Talk. “Seeing in time: Rhythmic music systematically alters pupil dynamics.” Max Planck Institute for Empirical Aesthetics, Frankfurt, Germany.
- Nov. 2017      Invited Lecturer. “Music & science research methods for undergraduates.” Musicology Department, UC Davis.
- Oct. 2017      Invited Speaker. “Stage presence.” Ladies Rock Sacramento.
- July 2017      Invited Lecturer. “Introduction to literature reviews.” Pre-College Program: Mind & Brain, UC Davis.
- Apr. 2017      Invited Speaker. “Writing a personal statement.” Neuroscience Initiative to Enhance Diversity, UC Davis.
- Nov. 2016      Invited Speaker. “Predicting audiovisual attention over time.” Davis Entrepreneurs Meet-Up, Davis Roots, Davis, CA.
- Oct. 2016      Invited Panelist. “How to publish as an undergraduate.” Undergraduate Research Center, UC Davis.
- July 2016      Invited Lecturer. “Assessing attention to music using eye-tracking.” Stanford Summer Arts Institute, Stanford University.
- May 2016      Invited Lecturer. “Music & visual motor behavior.” Musicology Department, UC Davis.
- Apr. 2016      Workshop Leader. “Forming & maintaining writing groups.” Writing Across the Curriculum Program, UC Davis.
- Apr. 2016      Invited Panelist. “The first abstract: Teaching undergraduates to summarize their research.” Professors for the Future, UC Davis.
- Apr. 2016      Invited Speaker. “The importance of synchronization and the power of music.” Sunday Assembly, Sacramento, CA.
- Apr. 2016      Invited Panelist. “Mentoring scientific writing: How to give effective, time-efficient feedback.” Professors for the Future, UC Davis.
- Apr. 2015      Invited Speaker. “Preparing your graduate school application: Student’s perspective.” Neuroscience Initiative to Enhance Diversity, UC Davis.

- Dec. 2014 Speaker. “Attention mapping via amplitude modulated sounds.” UC Davis Center for Neuroscience.
- Feb. 2013 Drum set player. “Science! The Musical.” World Premiere. Corpus Playroom, Cambridge, UK.
- Oct. 2013 Guest Lecturer. “It’s all in the mind.” Cambridge Festival of Ideas, Cambridge, UK.
- Apr. 2013 Senior Recitalist. “Matriculaphony: A Percussive Circus on Van Meter Ames’ *A Book of Changes*.” U. of Cincinnati College-Conservatory of Music.

## SERVICE

- 2018 – Peer-review panelist. California Arts Council
- 2017 – Founder and coordinator. Seminar Outreach for Minority Advocacy, UCD
- 2017 – Guest Editor of Special Issue. *Journal of Eye Movement Research*
- 2016– Ad-hoc Reviewer for: *Journal of Vision*; *Vision Research*; *Quarterly Journal of Experimental Psychology*; *Society for Music Perception and Cognition*; *Journal of Eye Movement Research*
- 2017 Selection Committee. Neuroscience Initiative to Enhance Diversity, UCD
- 2017 Graduate Student Coordinator. Neuroscience Initiative to Enhance Diversity, UCD
- 2016-17 Scientific Chair. Conference on Music & Eye-Tracking, Frankfurt, Germany
- 2016-17 Editor-in-Chief. *Explorations: The UC Davis Undergraduate Research Journal*
- 2015-16 Editor. *Explorations: The UC Davis Undergraduate Research Journal*
- 2014-16 Neuroscience Retreat Organizing Committee, UCD

## AFFILIATIONS / MEMBERSHIPS

- 2018 – Cognitive Neuroscience Society
- 2017 – Women in Music Information Retrieval
- 2016 – Society for Music Perception & Cognition
- 2015 – Association of Women in Science
- 2007 – Percussive Arts Society
- 2013-14 Society for Philosophy & Psychology

## PROFESSIONAL DEVELOPMENT

- 2018 Mini Event-Related Potential Bootcamp, *Steve Luck, UCD Center for Mind & Brain*
- 2018 Women in Music Information Retrieval Mentoring Program
- 2017 Certificate: AAAS Science Communication Program
- 2017 Certificate: Thoughtful Pedagogy for Diverse Learning Environments, *UCD Center for Educational Effectiveness*
- 2016 Certificate: Foundations in Teaching, *UCD Center for Educational Effectiveness*
- 2014 Interdisciplinary College: Social Cognition. *Günne, Germany*
- 2010 Symphony Orchestra Academy of the Pacific. *British Columbia, Canada*
- 2009-10 Racial Awareness Pilot Program. *U. of Cincinnati*

## REFERENCES

**Dr. Petr Janata:** Professor of Psychology, Center for Mind & Brain, UC Davis  
 Phone: +1 (530) 297 4471 E-Mail: [pjanata@ucdavis.edu](mailto:pjanata@ucdavis.edu)

- Dr. Elke Lange:** Scientific Researcher, Max Planck Institute for Empirical Aesthetics  
Phone: +49 69-8300479-210 E-Mail: [elke.lange@aesthetics.mpg.de](mailto:elke.lange@aesthetics.mpg.de)
- Dr. Joy Geng:** Associate Professor of Psychology, Center for Mind & Brain, UC Davis  
Phone: +1 (530) 297-4486 E-Mail: [jgeng@ucdavis.edu](mailto:jgeng@ucdavis.edu)
- Dr. Brenda Rinard:** Lecturer, University Writing Program, UC Davis  
Phone: +1 (530) 752-6283 E-Mail: [bjrinard@ucdavis.edu](mailto:bjrinard@ucdavis.edu)
- Dr. Ian Cross:** Professor of Music and Science, Faculty of Music, U. of Cambridge, UK  
Phone: +44 (0)1223 335185 E-Mail: [ic108@cam.ac.uk](mailto:ic108@cam.ac.uk)
- Dr. Ilya Vilinsky:** Director of Undergraduate Neuroscience, U. of Cincinnati  
Phone: +1 (513) 556 9749 E-Mail: [ilya.vilinsky@uc.edu](mailto:ilya.vilinsky@uc.edu)
- Prof. Allen Otte:** Professor of Percussion, U. of Cincinnati College-Conservatory of Music  
Phone: +1 (513) 556 9423 E-Mail: [allen.otte@uc.edu](mailto:allen.otte@uc.edu)