

# Lauren Fink

Wissenschaftliche Mitarbeiterin | Postdoctoral Researcher

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**Curriculum Vitae – Apr. 2020**

## 1. EDUCATION AND DEGREES

2014 - 2019 Ph.D. in Neuroscience at the University of California, Davis (UCD), CA, USA

2013 - 2014 M.Phil. in Music Studies at the University of Cambridge, England, UK

2009 - 2013 B.M. in Percussion Performance (major) and Psychology (minor) at the University of Cincinnati College Conservatory of Music, Ohio, USA, *summa cum laude*

## 2. RESEARCH CAREER

01/2020 – **Wissenschaftliche Mitarbeiterin** (Postdoctoral Researcher) in the Music Department, Max Planck Institute for Empirical Aesthetics.

09/2015 – 10/2019 **Researcher** in the Janata Lab, Center for Mind & Brain, at the University of California, Davis, for the research projects: 1) “Predicting sensorimotor synchronization and attention to music using a linear oscillator model, eye-tracking, and electroencephalography,” and 2) “Fostering Empathy and Improving Focus Through the Groove Enhancement Machine: Facilitating Sensorimotor Coordination and Cooperation Among Groups of Individuals,” directed by Prof. Dr. Petr Janata, funded by *The University of California Music Experience Research Community Initiative* and the *National Academies Keck Futures Initiative*.

08/2017 **Gastforscher** (Guest Researcher) in the Max-Planck-Institute for Empirical Aesthetics, Frankfurt, Germany, for the project: “Comparing Pupil Labs and SMI mobile eye-tracking glasses in the concert hall,” directed by Dr. Elke Lange.

08/2016 **Visiting Researcher** in the Swartz Center for Computational Neuroscience at the University of California, San Diego, for the project: “Simultaneous eye-tracking and electroencephalography during an auditory deviance detection task,” directed by Dr. John Iversen.

07/2016 – 08/2016 **Visiting Researcher** in the Center for Computer Research in Music and Acoustics, Stanford University, for the project: “Fostering Empathy and Improving Focus Through the Groove Enhancement Machine: Facilitating Sensorimotor Coordination and Cooperation Among Groups of Individuals,” directed by Prof. Dr. Petr Janata and Prof. Dr. Jonathan Berger, funded by the *National Academies Keck Futures Initiative*.

- 03/2015 – 06/2015 **Visiting Researcher** in the Geng Lab, Center for Mind & Brain, University of California, Davis, for the research project: “Characterization of eyeblinks and pupil diameter during an auditory deviance detection task,” directed by Prof. Dr. Joy Geng.
- 01/2015 – 03/2015 **Visiting Researcher** in the Dynamic Memory Lab, Center for Neuroscience, University of California, Davis, for the research project: “Goal relevance in temporal contexts: the role of the fronto-striatal-hippocampal circuit,” directed by Prof. Dr. Charan Ranganath and Dr. Matthias Gruber.
- 09/2014 – 12/2014 **Visiting Researcher** in the Janata Lab, Center for Mind & Brain, for the research project: “Attention mapping via amplitude modulated sounds,” directed by Prof. Dr. Petr Janata.
- 04/2011 – 05/2013 **Intern** at the Archives & Rare Books Library, University of Cincinnati (<http://libapps.libraries.uc.edu/liblog/?s=lauren+fink>)

### 3. PUBLICATIONS

- Sharma, N., Krishnamohan, V., Ganapathy, S., Gangopadhyay, A. & **Fink, L.** (2020). On the impact of language familiarity in talker change detection. *Proceedings of the 2020 IEEE International Conference on Acoustics, Speech, and Signal Processing, Barcelona, Spain*, pp. 6249 – 6253. DOI: 10.1109/ICASSP40776.2020.9054294.
- 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*, 44(11), 1694-1711. 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*.

### 4. 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*.

## 5. TEACHING CAREER (University of California, Davis)

### Classes (conducted)

Summer, 2019	Introduction to Research Methods
Fall, 2018	Visual Rhetoric
Winter, 2017	Popular Science and Technology Writing
Fall, 2016	Neurobiology
Spring, 2016	Cultural History of the Blues

### Classes (assisted teaching)<sup>1</sup>

Fall, 2017	Psychology of Music
Spring, 2017	Human Brain & Disease (led anatomy lab for dissecting sheep brains)
Fall, 2015	Psychology of Music
Winter, 2015	Research Methods
Spring, 2015	Neurobiology of Speech

### Mentoring Programs

01 – 09 / 2019	Graduate coordinator for UC LEADS (Leadership Excellence through Advanced Degrees) <ul style="list-style-type: none"> <li>Assisted under-represented undergraduates in preparing for graduate school by offering one-on-one mentorship</li> <li>Helped students successfully find and complete summer research experiences</li> </ul>
09/2015 – 06/2019	Graduate Writing Fellow for the University Writing Program <ul style="list-style-type: none"> <li>Held one-on-one consultations, group writing retreats, and writing workshops</li> <li>Conducted research on graduate student writing</li> </ul>
09/2017 – 09/2019	Graduate mentor, Janata Lab <ul style="list-style-type: none"> <li>Mentored four undergraduate research assistants (2 from Psychology; 1 from Neurobiology, Physiology, &amp; Behavior; 1 from Musicology)</li> </ul>
01 – 06/2017	Graduate mentor for the Undergraduate Research Center <ul style="list-style-type: none"> <li>Mentored undergraduate Psychology student in lab-based research methods</li> </ul>

### Invited Lecturer

Fall, 2017	“How to publish as an undergraduate.” <i>Undergraduate Research Center</i>
Summer, 2017	“Introduction to literature reviews.” <i>Pre-College Program: Mind &amp; Brain</i>
Winter, 2017	“Music & science research methods for undergraduates.” <i>Musicology Department</i>
Spring, 2016	“Forming & maintaining writing groups.” <i>University Writing Program</i>

<sup>1</sup> assisted teaching by holding weekly office hours, proctoring and grading all exams, and maintaining student records.

“The first abstract: Teaching undergraduates to summarize their research.  
*Professors for the Future Program*

“Mentoring scientific writing: How to give effective, time-efficient  
feedback.” *Professors for the Future Program*

“Music & visual motor behavior.” *Musicology Department*

Fall 2015 “Expectation, Syntax, and Tension in Music” *Psychology Department*

## 6. GRANTS / SCHOLARSHIPS / FELLOWSHIPS

2017-19	ARCS Foundation Achievement Research Award for College Scientists (\$22,000)
2016-19	Lead Graduate Writing Fellowship, UCD (\$11,000)
2016-19	University Writing Program Travel Award, UCD (\$1,900)
2018	Graduate Student Association Special Projects Award (\$700)
2017-18	Graduate Student Association Travel Award (\$1000)
2018	Lesbians Who Tech Summit Scholarship (\$250)
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	University of California Music Experience Research Community Initiative: Research Exchange Grant – UC San Diego (\$3,500)
2016	Ling-Lie Chau Student Award for Brain Research, UCD (\$1,000)
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)

## 7. CONFERENCE PRESENTATIONS

**Fink, L.**, Hurley, B., Geng, J., Lange, E., & Janata, P. (2019, Aug.). A computational model of  
rhythmic auditory attention predicts the pupillary response to music. *Talk presented at the  
European Conference on Eye Movements, Alicante, Spain.*

Lange, E., Thiele, D., **Fink, L.**, & Kuipers, M. (2019, Aug.). Narrative aesthetic absorption into  
audiobooks: Acoustics, cross-modal coupling and subjective states are related. *Poster presented  
at the European Conference on Eye Movements, Alicante, Spain.*

- 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.** & 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.*

## 8. SERVICE

- 2016 – Ad-hoc Reviewer for:  
*Cortex*  
*Brain and Cognition*  
*Journal of Vision*  
*Vision Research*  
*Quarterly Journal of Experimental Psychology*  
*Society for Music Perception and Cognition*  
*Journal of Eye Movement Research*
- 2018-20 Peer-review panelist. California Arts Council
- 2017 & 2020 Scientific Chair. Conference on Music & Eye-Tracking, Frankfurt, Germany
- 2017-19 Guest Editor of Special Issue. *Journal of Eye Movement Research*
- 2017-18 Founder and coordinator. Seminar Outreach for Minority Advocacy, UCD
- 2017 Selection Committee. Neuroscience Initiative to Enhance Diversity, UCD
- 2017 Graduate Student Coordinator. Neuroscience Initiative to Enhance Diversity, UCD
- 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

## 9. PROFESSIONAL TRAINING

- 2019 Telluride Neuromorphic Cognition Engineering Workshop, *Telluride, CO*
- 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 Kollege: Social Cognition. *Günne, Germany*
- 2009-10 Racial Awareness Pilot Program. *U. of Cincinnati*

## 10. 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

## 11. INVITED TALKS

- Feb. 2019 “Modeling pupillary entrainment to music and absorptive music listening experiences.” Center for Computer Research in Music and Acoustics, Stanford University.
- Sept. 2018 “Pupillometry as an auditory research tool.” UC Davis Neuroscience Retreat, Bodega Bay Marine Laboratory, Bodega Bay, CA.

- Apr. 2018 “The Groove Enhancement Machine.” Center for Computer Research in Music and Acoustics, Stanford University.
- Mar. 2018 “Seeing in time: Rhythmic music systematically alters pupil dynamics.” Max Planck Institute for Empirical Aesthetics, Frankfurt, Germany.
- Oct. 2017 “Stage presence.” Ladies Rock Sacramento. Sacramento, CA.
- Apr. 2017 “Writing a personal statement.” Neuroscience Initiative to Enhance Diversity, UC Davis.
- Nov. 2016 “Predicting audiovisual attention over time.” Davis Entrepreneurs Meet-Up, Davis Roots, Davis, CA.
- July 2016 “Assessing attention to music using eye-tracking.” Stanford Summer Arts Institute, Stanford University.
- Apr. 2016 “The importance of synchronization and the power of music.” Sunday Assembly, Sacramento, CA.
- Oct. 2013 “It’s all in the mind.” Cambridge Festival of Ideas, Cambridge, UK.

## 12. PROFESSIONAL MUSIC EXPERIENCE

- Nov. 2014 Percussion Quartet: Lauren Fink, Tyler Niemeyer, Shane Jones, Zach Larabee. Premiere of “Oscillator Etudes” by Paul Schuette at the *Percussive Arts Society International Convention, Indianapolis, IN*
- Feb. 2013 Drum set player. “Science! The Musical.” World Premiere. Corpus Playroom, *Cambridge, UK*
- Apr. 2013 Senior Recitalist. “Matriculaphony: A Percussive Circus on Van Meter Ames’ *A Book of Changes*.” Patricia Corbett Theater, *Cincinnati, OH*
- 07-08/2013 Drum Line Instructor. Liberty High School, *Youngstown, OH*
- 2012-13 Percussion Accompanist. Dance Division, *U. of Cincinnati College-Conservatory of Music*.
- 2010 – 2011 Percussion Coach. Cincinnati Youth Wind Ensemble. *Cincinnati, OH*.
- 06-07/2010 Orchestral Percussionist. Symphony Orchestra Academy of the Pacific. *British Columbia, Canada*
- 2008 – 2014 Private Percussion Teacher. *Youngstown & Cincinnati, OH*

## 13. REFERENCES

- 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. 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. Joy Geng:** Associate Professor of Psychology, Center for Mind & Brain, UC Davis  
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