

Lauren Fink

Wissenschaftliche Mitarbeiterin | Postdoctoral Researcher

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Curriculum Vitae – Sept. 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

- Czepiel, A., **Fink, L.K.**, Fink, L.T., Wald-Fuhrmann, M., Tröndle, M., & Merrill, J. (submitted). Synchrony in the periphery: inter-subject correlation of physiological responses during live music concerts. *BioRxiv*. DOI: <https://doi.org/10.1101/2020.09.01.271650>.
- 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)¹

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

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 & Brain</i>

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

Winter, 2017	“Music & science research methods for undergraduates.” <i>Musicology Department</i>
Spring, 2016	“Forming & maintaining writing groups.” <i>University Writing Program</i> “The first abstract: Teaching undergraduates to summarize their research.” <i>Professors for the Future Program</i> “Mentoring scientific writing: How to give effective, time-efficient feedback.” <i>Professors for the Future Program</i> “Music & visual motor behavior.” <i>Musicology Department</i>
Fall 2015	“Expectation, Syntax, and Tension in Music” <i>Psychology Department</i>

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., Howlin, C., Randall, W., Warrenburg, L., Hansen, N.C., Wald-Fuhrmann, M. (2020, Sept.) Music as a tool for socio-emotional coping during Covid-19 pandemic lockdown. *Talk (virtual) presented at the Society for Education, Music, and Psychology Research.*

- Czepiel, A., Merrill, J., **Fink, L.**, Egermann, H., Wald-Fuhrmann, M. (2020, Sept.) Tempo and key clarity synchronise physiology in classical concert audiences. *Poster (virtual) presented at the Deutschen Gesellschaft für Musikpsychologie Virtuelle Postertagung.*
- Lange, E., Zweck, F., Sinn, P., Thiel, D., **Fink, L.**, & Kuipers, M. (2020, Sept.) Eye-tracking as method to investigate experiences of aesthetic absorption. *Poster (virtual) presented at the Deutschen Gesellschaft für Musikpsychologie Virtuelle Postertagung.*
- 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 14th 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 14th 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:
Brain and Cognition
Cortex
Journal of Eye Movement Research
Journal of Vision
Music & Science
Quarterly Journal of Experimental Psychology
Society for Music Perception and Cognition
Vision Research
- 2017 & 2021 Scientific Chair. Conference on Music & Eye-Tracking, Frankfurt, Germany
- 2018-20 Peer-review panelist. California Arts Council
- 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

- 2020 Communicating Science to Non-Scientists and Media Training for Researchers, *Max-Planck-Gesellschaft, online*
- 2020 Neuromatch Academy, *online*
- 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
- Dr. Petr Janata:** Professor of Psychology, Center for Mind & Brain, UC Davis
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- Dr. Ian Cross:** Professor of Music and Science, Faculty of Music, U. of Cambridge, UK
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- Prof. Allen Otte:** Professor of Percussion, U. of Cincinnati College-Conservatory of Music
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