Kevin R Sitek

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Education

PhD **Harvard University**, Speech and Hearing Bioscience and Technology — 2013 – 2019
- Division of Medical Sciences, Harvard–MIT Program
- Advisor: Satrajit S. Ghosh, PhD
- Dissertation: Mapping the Human Subcortical Auditory System With MRI

BA **University of California, Berkeley**, Linguistics (Honors) and Cognitive Science — 2007 – 2011
- Advisor: Keith Johnson, PhD
- Linguistics honors thesis: Phonetic context effects in ipsilateral and contralateral conditions

Experience

Northwestern University, Research Assistant Professor — Evanston, IL
- Department of Communication Sciences and Disorders — 2023 – present
- Affiliated Faculty: Cognitive Science Program; Northwestern University Interdepartmental Neuroscience (NUIN) PhD Program

University of Pittsburgh, Research Scientist — Pittsburgh, PA
- Department of Communication Science and Disorders — 2021 – 2023
- SoundBrain Lab (PI: Bharath Chandrasekaran, PhD)

University of Pittsburgh, Postdoctoral Associate — Pittsburgh, PA
- Department of Communication Science and Disorders — 2021 – 2021
- SoundBrain Lab (PI: Bharath Chandrasekaran, PhD)

Baylor College of Medicine, Postdoctoral Associate — Houston, TX
- Department of Neuroscience — 2019 – 2021
- High Resolution Brain Imaging Lab (PI: David Ress, PhD)

MIT McGovern Institute for Brain Research, Graduate Student Researcher — Cambridge, MA
- Gabrieli Laboratory — 2014 – 2019

San Francisco VA Medical Center / NCIRE, Staff Research Assistant I/II — San Francisco, CA
- Brain Imaging and EEG Laboratory (PIs: Judith Ford, PhD; Daniel Mathalon, PhD, MD) — 2011 – 2013

UC Berkeley Department of Linguistics, Undergraduate/Staff Research Assistant — Berkeley, CA
- Phonology Laboratory (PI: Keith Johnson, PhD) — 2009 – 2011

Grants

Auditory–motor interactions in neural processing and the frequency-following response — 2025–2028
- NIH NIDCD ECR R21 · Grant: 1R21DC022906-01
- Role: Principal Investigator
- Co-Investigators: Bharath Chandrasekaran, PhD; Peer Herholz, Dr. rer. nat.

High-resolution functional imaging of speech-induced sensory modulation 2024–2028
- NIH NIDCD R01 · Grant: R01 DC020963-01A1
- Role: Co-Investigator (PI: Jason W. Bohland, PhD)

Investigating human non-lemniscal inferior colliculus contributions to auditory learning with 7T MRI 2022–2027
- NIH NIDCD K01 Mentored Career Development Award · Grant: K01 DC019421-01A1
- Role: Principal Investigator
- Co-Mentors: Bharath Chandrasekaran, PhD; Tamer Ibrahim, PhD; Srivatsun Sadagopan, PhD

Administrative Supplement — K01 DC019421 2025–2026
- NIH NIDCD Administrative Supplement · Grant: 3K01DC019421-05S1
- Role: Principal Investigator

Cortical-subcortical interactions in auditory cognition 2023–2028
- CIHR Project Grant
- Role: Collaborator (PI: Robert Zatorre, PhD)

Subcortical auditory feedback mechanisms in speech: Function and structure 2016–2018
- NIH NIDCD F31 NRSA Predoctoral Fellowship · Grant: F31 DC015695-01 (completed)
- Role: Principal Investigator
- Sponsor: Satrajit S. Ghosh, PhD; Co-Sponsor: John D. E. Gabrieli, PhD

Submitted Manuscripts and Preprints

Distinct 7T functional MRI response patterns to stimulus, response, and feedback across dorsal striatum during auditory learning in revision
Sitek, K.R., Roark, C.L., Helou, L.B., Chandrasekaran, B.

The recognition and comprehension of speech sound patterns show a mechanistic dissociation along the ventral and dorsal streams in review
Llanos, F., **Sitek, K.R.**, Feng, G., Chandrasekaran, B.

Auditory corticostriatal connections in the human brain in revision
Sitek, K.R., Helou, L.B., Chandrasekaran, B.
10.1101/2022.08.04.502679 (bioRxiv)

Bayesian Tensor Factorized Mixed Effects Vector Autoregressive Processes for Inferring Granger Causality Patterns from High-Dimensional Neuroimage Data 2022
Fan, J., **Sitek, K.R.**, Chandrasekaran, B., Sarkar, A.
10.48550/arXiv.2206.10757 (arXiv)

Publications

Mapping Whole-Brain Auditory Activation with 3T Multi-Echo fMRI at the Group and Individual-Subject Level 2026
Medina, M.C., Reddy, N.H., **Sitek, K.R.**, Bright, M.G.
10.1016/j.heares.2026.109622 (Hearing Research)

Communication is the foundation of an impactful and resilient scientific community 2025
Sitek, K.R., Wearn, A., DuPre, E.M.
10.52294/001c.143510 (Aperture Neuro 2025;5(SI 3))

The Organization for Human Brain Mapping Time Machine: A freely accessible archive of Annual Meeting talks on YouTube 2025
Wearn, A., **Sitek, K.R.**, Valk, S.L., Forkel, S.J.
10.52294/001c.138647 (Aperture Neuro 2025;5(SI 2))

Functional connectivity across the human subcortical auditory system using an autoregressive matrix-Gaussian copula graphical model approach with partial correlations 2024
Chandra, N.K., *Sitek, K.R.***, Sarkar, A., Chandrasekaran, B.
10.1162/imag_a_00258 (Imaging Neuroscience)

Cortical-subcortical interactions to violations of auditory predictions measured with 7T functional MRI 2024
Ara, A., Provias, V., **Sitek, K.R.**, Coffey, E., Zatorre, R.
10.1093/cercor/bhae316 (Cerebral Cortex)

On the role of neural oscillations across timescales in speech and music processing 2022
Gnanateja, G.N., Devaraju, D.S., Heyne, M., Quique, Y.M., **Sitek, K.R.**, Tardif, M.C., Tessmer, R., Dial, H.R.
10.3389/fncom.2022.872093 (Frontiers in Computational Neuroscience)

Structural connectivity of human inferior colliculus subdivisions using in vivo and post mortem diffusion MRI tractography 2022
Sitek, K.R., Calabrese, E., Johnson, G.A., Ghosh, S.S., Chandrasekaran, B.
10.3389/fnins.2022.751595 (Frontiers in Neuroscience)

Depth relationships and measures of tissue thickness in dorsal midbrain 2020
Truong, P., Kim, J.H., Savjani, R., **Sitek, K.R.**, Hagberg, G., Scheffler, K., Ress, D.
10.1002/hbm.25185 (Human Brain Mapping)

Mapping the human subcortical auditory system using histology, postmortem MRI and in vivo MRI at 7T 2019
Sitek, K.R., *Gulban, O.F.*, Calabrese, E., Johnson, G.A., Lage-Castellanos, A., Moerel, M., Ghosh, S.S.†, De Martino, F.†
10.7554/eLife.48932 (eLife)

Alterations in the inferior longitudinal fasciculus in autism and associations with visual processing: a diffusion-weighted MRI study 2018
Boets, B., Van Eylen, L., **Sitek, K.**, Moors, P., Noens, I., Steyaert, J., Sunaert, S., Wagemans, J.
10.1186/s13229-018-0188-6 (Molecular Autism)

Diffusion tensor imaging of central auditory pathways in patients with sensorineural hearing loss: a systematic review 2018
Tarabichi, O., Kozin, E.D., Kanumuri, V.V., Barber, S., Ghosh, S., **Sitek, K.R.**, Reinshagen, K., Herrmann, B., Remenschneider, A.K., Lee, D.J.
10.1177/0194599817739838 (Otolaryngology–Head and Neck Surgery)

Decreased cerebellar-orbitofrontal connectivity correlates with stuttering severity: whole-brain functional and structural connectivity associations with persistent developmental stuttering 2016
Sitek, K.R., Cai, S., Beal, D.S., Perkell, J.S., Guenther, F.H., Ghosh, S.S.
10.3389/fnhum.2016.00190 (Frontiers in Human Neuroscience)

Auditory cortex processes variation in our own speech 2013
Sitek, K.R., Mathalon, D.H., Roach, B.J., Houde, J.F., Niziolek, C.A., Ford, J.M.
10.1371/journal.pone.0082925 (PLoS ONE)

Teaching

Communicating Science (CSD 550-3) 2024, 2025
- Instructor of Record (Adjunct), Northwestern University
- Graduate PhD course: oral, written, visual, and multimedia science communication

Speech Communication (MIT 6.541/HST.710/SHBT 204) 2015, 2016
- Graduate Teaching Assistant, MIT/Harvard University

Guest Lectures 2016—present
- Auditory Cognitive Neuroscience — Northwestern CSD 366 (Cognitive Science Prosem-inar)
- Subcortical Auditory Anatomy — Pitt CSD 2110 (Neuroscience of Communication)
- Subcortical Contributions to Language — UT Dallas (Brain & Language)
- Subcortical Auditory Anatomy and Human Function — Pitt CSD 1024 (Anatomy & Phys-iology of Hearing)
- Acoustic Phonetics: Vowels — Harvard SHBT 204 (Speech Communication)

Mentorship

PhD Students
- Laura Raiff, Biomedical Engineering, Northwestern (2026–present; lead advisor, disser-tation advisory committee)
- Michelle Medina, Biomedical Engineering, Northwestern (2024–present; dissertation advisory committee)
- Serena Mon, Communication Sciences and Disorders, Northwestern (2023–2024; qual-ifying exam committee)

Doctor of Audiology
- Laura Cahalan, University of Pittsburgh (Capstone Research Project)

Undergraduate Research Assistants
- Max Chen, BA Cognitive Science, Northwestern (2025–present; FFRPREP contributor)
- Gabrielle Butler, BA Cognitive Science, Northwestern (2024–2025; honors thesis)
- Amp Kangusmrith, BA Cognitive Science, Northwestern (2024–present; Independent Study in Cognitive Science)
- Angelina Dinardo, BA CSD, University of Pittsburgh (Completed MS in Speech Language Pathology at Northeastern University)
- Madison Andreano, BA CSD, University of Pittsburgh (Completed her MS in Speech Language Pathology at the University of Minnesota)
- Olivia Flemm, BA CSD, University of Pittsburgh (Completed her AuD at the University of Pittsburgh)

High School Research Assistants
- Leo Chen (2025, Northwestern University; FFRPREP contributor)
- Karen Linares Mendoza (2022, University of Pittsburgh; Now pursuing undergraduate studies at Johns Hopkins University)

Awards and Honors

Aperture Neuro Best Reviewer Award 2025
- Organization for Human Brain Mapping, Brisbane, Australia

ASHA Lessons for Success 2023
- Accepted participant

OHBM Merit Award 2020

Harvard Brain Science Initiative Young Scientist Travel Award 2018

Mass. Eye and Ear Amelia Peabody Scholarship 2017–2018

OHBM Hackathon Travel Award 2017
- Vancouver, BC

Neurohackweek / Neurohackademy 2017
- Accepted participant, Seattle, WA

Certificate of Distinction in Teaching 2015
- Harvard University, Derek Bok Center for Teaching and Learning

Service

***Aperture Neuro* Editorial Review Board** 2026—present

***Frontiers in Language Sciences* Review Editor** 2022—present

Ad hoc reviewer
- Journals: *Aperture Neuro, Brain & Language, Brain Structure and Function, Cerebral Cortex, Frontiers in Psychology, Heliyon, Journal of the Association for Research in Otolaryngology, Journal of Neuroscience Research, Journal of Speech, Language, and Hearing Research, Molecular Genetics & Genomic Medicine, NeuroImage, Neuropsychologia, OHBM Abstract Submissions, PLOS ONE*
- Granting agenncies: European Research Council, Swiss National Science Foundation

PhD Admissions Committee, Northwestern University Interdepartmental Neuroscience (NUIN) Program 2025–2026

ASHA Convention Topic Committee: Hearing, Balance, Tinnitus 2024, 2025

Undergraduate Studies Committee, Northwestern CSD 2023–2025

Organization for Human Brain Mapping, Communications Committee 2021–2025
- Past Chair (2024–2025)
- Chair (2023–2024)
- Chair-Elect / Blog Team Lead (2022–2023)
- Podcast Team Co-founder and Editor (2021–2022)

Organization for Human Brain Mapping, Student–Postdoc Special Interest Group 2019–2021
- Social Media and Communications Lead

Society for Cognitive Auditory Neuroscience (SCAN) Moderator 2021–2023

Science in the News (Harvard) 2013–2019
- Social Media Outreach Lead (2015–2019)
- Editor, Science in the News Blog (2013–2018)

BrainHack Boston Organizing Committee 2017

SMALL Journal Club Co-founder and Organizer 2016–2019