

Dr. Mateo López Espejo, Ph.D

mateo.lopez.espejo@gmail.com • lopezesp@ohsu.edu

Laboratory of Brain Hearing and Behavior
Oregon Hearing Research Center
Oregon Health and Science University
3181 S.W. Sam Jackson Park Road, Portland, OR, 97239

EDUCATION

Oregon Health and Science University (OHSU), Portland, OR
Neuroscience, Ph.D

July 2016 to December 2021

Universidad Nacional de Colombia (UNAL), Bogota, Colombia
Biology, B.S.

February 2010 to July 2015

SCIENTIFIC SKILLS

Laboratory proficiencies: In-vivo electrophysiology, in-vitro electrophysiology, spike sorting, multi-unit data analysis, multi-electrode array recording, patch clamp electrophysiology, steril surgery, histology, cloning and basic molecular biology, basic electronics.

Computer proficiencies: Python, MATLAB, MySQL

Additional Tools: Git, Linux, LaTeX

RESEARCH EXPERIENCE

Doctoral Student – Dr. Stephen David, OHSU

October 2017 to December 2021

Undergraduate Research Assistant – Dr. Enrico Nasi Lignarolo, UNAL

2013 to June 2016

COURSES AND WORKSHOPS

Certification in medicinal cannabis production – Universidad Nacional de Colombia

June 2023

Workshop in deep learning – Neuromatch Academy

august 2021

AWARDS AND FELLOWSHIPS

Promising scholar award, Center for Diversity and Inclusion, OHSU

2016

Best admission exams for Biology, B.S, UNAL

2010

TEACHING EXPERIENCE

Systems Neuroscience, TA, OHSU

2017

Microbiology, TA, UNAL

2015

Animal physiology, TA, UNAL

2014

COMMUNITY OUTREACH

Alliance for Visible Diversity in Science, Events Chair

2019 to 2021

PROFESSIONAL MEMBERSHIP

Society for Neuroscience

2019 to 2023

PUBLICATIONS

- Lopez Espejo, M., & David, S. V.** (2023). A sparse code for natural sound context in auditory cortex. *BioRxiv*. <https://doi.org/10.1101/2023.06.14.544866>.
- Lopez Espejo, M., Schwartz Z. P., & David, S. V.** (2019). Spectral tuning of adaptation supports coding of sensory context in auditory cortex. *PLoS Comput Biol* 15(10): e1007430. <https://doi.org/10.1371/journal.pcbi.1007430>.

SELECTED ABSTRACTS

- López Espejo M., David, S. V.** Sparse representation of sensory context by single neurons in auditory cortex. San Diego, CA: Society for Neuroscience (SFN), 2022.
- López Espejo M., David, S. V.** Differential temporal modulation tuning in auditory responses between inhibitory and excitatory neurons in ferret auditory cortex. Chicago, IL: Society for Neuroscience (SFN), 2021.
- Heller C. R., Saderi D, **López Espejo M., David, S. V.** Task engagement selectively enhances population discrimination of behavior-relevant categories in primary auditory cortex. Denver, CO: Computational and Systems Neuroscience (COSYNE), 2020
- López Espejo M., David, S. V.** Long lasting contextual discrimination in non primary auditory cortex. Chicago IL: Advances and Perspectives in Auditory Neuroscience (APAN), 2019.
- Prieto J.D., **López Espejo M., Gómez M., & Nasi E.** A phototransduction complex in the retina of squid: generality of the transducisome for light signaling. Buenos Aires, Argentina: Congreso latinoamericano de neurociencias, 2017.