



Maggie Matern

Instructor, Otolaryngology (Head and Neck Surgery)

Bio

ACADEMIC APPOINTMENTS

- Instructor, Otolaryngology (Head and Neck Surgery)

HONORS AND AWARDS

- K99/R00 Pathway to Independence Award DC021984, National Institutes of Health (2024)
- American Postdoctoral Research Leave Fellowship, American Association of University (2024)
- Kresge Hearing Research Institute 2024 Founders Day Schacht Lecturer, University of Michigan Medicine (2024)
- Dean's Postdoctoral Fellowship, Stanford University School of Medicine (2022)
- Clinical-Scientist Training Program in Otolaryngology, Stanford University School of Medicine (2020)
- Graduate Program in Life Sciences 2019 PhD Thesis Project Award, University of Maryland Baltimore (2019)
- Department of Otorhinolaryngology Head and Neck Surgery Research Award, University of Maryland Baltimore (2019)
- Langenberg Endowment in Women's Health and Epidemiology Award, University of Maryland Baltimore (2018)
- Graduate Student Travel Award, Association for Research in Otolaryngology (2018)
- Ruth L. Kirschstein Predoctoral Individual National Research Service Award, National Institutes of Health (2017)
- Center for Comparative and Evolutionary Biology of Hearing Pre-Doctoral Training Grant, University of Maryland College Park (2015)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Postdoctoral Representative, Stanford Medicine Diversity Cabinet (2023 - present)
- Volunteer, SURPAS Family Committee (2022 - present)

PROFESSIONAL EDUCATION

- Doctor of Philosophy, University of Maryland Baltimore , Epidemiology and Human Genetics (2019)
- Bachelor of Science, University of New Hampshire , Genetics (2013)

Publications

PUBLICATIONS

- **A developmental atlas of mouse vestibular-like inner ear organoids** *iScience*
Matern, M. S., Heller, S.
2025; 28 (2)
- **Transcriptional dynamics of delaminating neuroblasts in the mouse otic vesicle.** *Cell reports*
Matern, M. S., Durruthy-Durruthy, R., Birol, O., Darmanis, S., Scheibinger, M., Groves, A. K., Heller, S.

2023; 42 (6): 112545

- **Cell Type-Specific Expression Analysis of the Inner Ear: A Technical Report.** *The Laryngoscope*
Hertzano, R., Gwilliam, K., Rose, K., Milon, B., Matern, M. S.
2021; 131 Suppl 5 (Suppl 5): S1-S16
- **gEAR: Gene Expression Analysis Resource portal for community-driven, multi-omic data exploration.** *Nature methods*
Orvis, J., Gottfried, B., Kancherla, J., Adkins, R. S., Song, Y., Dror, A. A., Olley, D., Rose, K., Chrysostomou, E., Kelly, M. C., Milon, B., Matern, M. S., Azaiez, et al
2021; 18 (8): 843-844
- **GFI1 functions to repress neuronal gene expression in the developing inner ear hair cells.** *Development (Cambridge, England)*
Matern, M. S., Milon, B., Lipford, E. L., McMurray, M., Ogawa, Y., Tkaczuk, A., Song, Y., Elkon, R., Hertzano, R.
2020; 147 (17)
- **Genomic knockout of *alms1* in zebrafish recapitulates Alström syndrome and provides insight into metabolic phenotypes.** *Human molecular genetics*
Nesmith, J. E., Hostelley, T. L., Leitch, C. C., Matern, M. S., Sethna, S., McFarland, R., Lodh, S., Westlake, C. J., Hertzano, R., Ahmed, Z. M., Zaghoul, N. A.
2019; 28 (13): 2212-2223
- **Helios is a key transcriptional regulator of outer hair cell maturation.** *Nature*
Chessum, L., Matern, M. S., Kelly, M. C., Johnson, S. L., Ogawa, Y., Milon, B., McMurray, M., Driver, E. C., Parker, A., Song, Y., Codner, G., Esapa, C. T., Prescott, et al
2018; 563 (7733): 696-700
- **Transcriptomic Profiling of Zebrafish Hair Cells Using RiboTag.** *Frontiers in cell and developmental biology*
Matern, M. S., Beirl, A., Ogawa, Y., Song, Y., Paladugu, N., Kindt, K. S., Hertzano, R.
2018; 6: 47
- **Gfi1Cre mice have early onset progressive hearing loss and induce recombination in numerous inner ear non-hair cells.** *Scientific reports*
Matern, M., Vijayakumar, S., Margulies, Z., Milon, B., Song, Y., Elkon, R., Zhang, X., Jones, S. M., Hertzano, R.
2017; 7: 42079