

CURRICULUM VITAE

The Johns Hopkins University School of Medicine



(Signature)

(Typed Name)

L. Megan Beers Wood, PhD

January 25, 2021

DEMOGRAPHIC AND PERSONAL INFORMATION

Current Appointments

The Johns Hopkins University School of Medicine
Postdoctoral Research Fellow

Personal Data

The Johns Hopkins University School of Medicine
Department of Otolaryngology Head and Neck Surgery
The Center for Hearing and Balance
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Baltimore, MD 21205
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Education and Training (in chronological order)

2006 - 2010	B.S.	University of Georgia Athens, GA, USA	Cellular Biology
2010 - 2016	PhD	Lab of Ifor Williams, MD, PhD Laney Graduate School Emory University Atlanta, GA, USA	Immunology and Molecular Pathogenesis
2016 - 2018	Postdoctoral Fellow	Lab of Jian Zuo, PhD Dept. of Developmental Neuroscience St. Jude Children's Research Hospital Memphis, TN, USA	
2018 - present	Postdoctoral Fellow	Lab of Paul Fuchs, PhD Dept. of Otolaryngology-Head and Neck Surgery The Johns Hopkins School of Medicine Baltimore, MD, USA	

RESEARCH ACTIVITIES

Peer-reviewed Original Science Research

1. Mentink-Kane MM, Cheever AW, Wilson MS, Madala SK, **Beers LM**, Wynn TA. Accelerated and lethal liver fibrosis in mice that lack interleukin (IL)-10, IL12p40 and IL-13R α 2. *Gastroenterology*. 2011.
2. Rios D, **Wood MB**, Li J, Chassaing B, Gewirtz A, Williams IR. Antigen sampling by intestinal M cells is the principal pathway initiating mucosal IgA production to commensal enteric bacteria. *Mucosal Immunology*. 2015.
3. **Wood MB**, Rios D, Williams IR. TNF- α augments RANKL-dependent intestinal M cell differentiation in enteroid cultures. *American Journal of Physiology-Cell Physiology*. July 2016.
4. Rai V*, **Wood MB***, Feng H, Schabla NM, Tu S, Zuo J. The immune response after noise damage in the cochlea is characterized by a heterogeneous mix of adaptive and innate immune cells. *Scientific Reports*. September 2020. *These authors contributed equally.
5. **Wood MB**, Nowak N, Mull K, Goldring A, Lehar M, Fuchs PA. Acoustic Trauma Increases Ribbon Number and Size in Outer Hair Cells of the Mouse Cochlea. *JARO*, November 5, 2020.
6. Vyas P, **Wood MB**, Zhang Y, Goldring AC, Chakir FZ, Fuchs PA, Hiel H. Characterization of HA-tagged α 9 and α 10 nAChRs in the mouse cochlea. *Scientific Reports*. December 11, 2020.

Manuscript(s) in Preparation

7. Nowak N*, **Wood MB***, Glowatzki E, and Fuchs PA. Maturation and acoustic trauma alter type II cochlear afferent response to acute tissue damage. For submission to *eLife*, November 2020. * These authors contributed equally.

Educational Publication(s)

Wood MB, Zuo J. The contribution of immune infiltrates to ototoxicity and cochlear hair cell loss. Review. *Frontiers in Cellular Neuroscience*. March 2017.

Invited Talk(s)

- 2020 **Wood MB**, "Outer Hair Cell Ribbons Increase in Number and Size after Noise Damage" Hyperacusis Research Benefit Webinar
- 2017 **Wood MB**, "The Role of the Adaptive Immune System in the Cochlea," Center for Hearing and Balance Seminar, Johns Hopkins University, Baltimore MD, USA

Presentation(s)

- 2021 **Wood MB**, Nowak N, Mull K, Goldring A, Lehar M, Fuchs PA "OHC Synaptic Ribbons Increase in Number and Size After Acoustic Trauma," Podium Presentation at Upcoming ARO Virtual Midwinter Meeting, February 2021

- 2021 Rai V*, **Wood MB***, Tu S, Zuo J, “Heterogeneous Mix of Adaptive and Innate Immune Cells in the Noise-Damaged Cochlea,” Young Investigator’s Symposium, Upcoming ARO Virtual Midwinter Meeting, February 2021
- 2020 **Wood MB**, Nowak NJ, and Fuchs PA, “*Tac1*-expressing Type II Afferent Neurons in the Cochlea Respond to ATP after Acute Damage,” Podium Presentation at ARO Midwinter Meeting, January 2020, San Jose, CA.
- 2016 Speaker, “Adaptive Immune Cell Infiltration following Noise Damage to the Cochlea,” New Horizons in Inflammation and Synthetic Biology Workshop, November 2016, Boston, MA.

Poster Presentations

- 2021 Nowak N*, **Wood MB***, Fuchs PA, Glowatzki E. Previous Acoustic Trauma Prolongs the Acute Damage Response of Type II Cochlear Afferents and Epithelial Cells. Upcoming ARO Virtual Midwinter Meeting.
- 2021 Hiel H, Vyas P, **Wood MB**, Zhang Y, Goldring A, Chakir F, Fuchs PA. Efferent Innervation and Function With HA-Tagged $\alpha 9$ and $\alpha 10$ nAChRs in the Mouse Cochlea. Upcoming ARO Virtual Midwinter Meeting.
- 2020 Vyas P, Goldring A, **Wood M**, Zhang Y, Chakir FZ, Fuchs PA and Hiel H. Characterization of HA-tagged Alpha 9 and Alpha 10 nAChRs in the mouse cochlea. ARO Midwinter Meeting, San Jose, CA. 2020.
- 2019 Nowak NJ, **Wood MB**, and Fuchs PA. ATP Sensitivity in Mouse Type II Spiral Ganglion Neurons Over the Course of Development. Society for Neuroscience Meeting, Chicago, IL. 2019.
- 2019 **Wood, MB**, Jimenez A, and Fuchs PA. Type II Cochlear Afferents Express CGRP within 1 day of Noise Trauma. ARO Midwinter Meeting, Baltimore, MD. 2019.
- 2018 **Wood MB**, Yamashita T, and Zuo, J. Immune Response to Noise Damage is Altered in Mice Lacking Adaptive Immunity, ARO Midwinter Meeting, San Diego, CA. 2018.
- 2014 **Wood MB**, Rios D, and Williams I. Analysis of RANKL-induced M Cell Differentiation Using 3-D Enteroid Cultures. European Mucosal Immunology Group Meeting. Glasgow, Scotland, UK, October 2014.
- 2014 **Wood MB**, Rios D, Li J, and Williams I. Analysis of RANKL-induced M Cell Differentiation Using 3-D Enteroid Cultures. Southeastern Immunology Symposium. Emory University, Atlanta, GA, June 2014.
- 2011 Padilla AM, Shane H, Pack AD, **Beers M**, Tarleton RL. Mechanisms of control of *Trypanosoma cruzi* at the initial site of parasite entry. 60th Annual Meeting of the American Society of Tropical Medicine and Hygiene. Philadelphia, MA. December 2011.

EDUCATIONAL ACTIVITIES

Additional Scientific Education

2009 NIH Summer Intern, Laboratory of Tom Wynn, NIAID, Bethesda, MD, USA
2011 Advanced Immunology Course, University of Minnesota, Minneapolis, MN, USA
2017 Biology of the Inner Ear Course, Marine Biological Laboratory, Woods Hole, MA, USA
2018 Structure and Function of the Auditory and Vestibular Systems (BME 580.625), JHU
Baltimore, MD, USA

Teaching Education

2014 Biology Teaching Fellowship, Emory University, Department of Biology
2013 – 2015 Science Education Research Journal Club, Emory University
2015 University Teaching 101, Coursera

Mentoring

Graduate Students

2018 – 2021 Nathaniel Nowak, Doctoral Candidate, JHU Neuroscience

Undergraduate Students

Fall 2019 - present Anda Nyati, Undergraduate Research Assistant, Johns Hopkins University

Summer 2019 – 2020 Keira Mull, Notre Dame of Maryland University/Johns Hopkins University
Sister Alma McNicholas Women Scientist Program
WE20 Annual Conference Poster Competition, 2nd Place, Undergraduate
“Using Virtual Reality & Electron Microscopy to Quantify
Outer Hair Cell Ribbon Synapses after Acoustic Trauma”
2020 BEYA Student Research Award Winner
2020 Bench Science Research Award Winner at Notre Dame of
Maryland University’s Nancy Kreiter Research Day

Fall 2018 Adrian Jimenez, Undergraduate Research Assistant, Johns Hopkins University

Summer 2017 Grace Conway, St. Jude Children’s Research Hospital
Pediatric Oncology Education Program

High School Students

Summer/ Fall 2019 Dharshan Varia, Mount Hebron High School Student

Educational Conferences

2015 Science Case Net Workshop, Emory University
2014 Institute for Pedagogy in the Liberal Arts, Emory University

ORGANIZATIONAL ACTIVITIES

Institutional Administrative Appointments and Activities

2018 – 2020 Peer Postdoc Representative, Department of Otolaryngology- HNS, Office of Postdoctoral
Affairs JHU School of Medicine

Journal Peer Review Activities

Peer reviews for:

PLOS ONE

Journal of Comparative Neurology

RECOGNITION**Awards, Honors**

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| 2021 | ARO Virtual Midwinter Meeting Travel Award |
| 2018 | ARO Midwinter Meeting Travel Award |
| 2010 | Grace Thomas Award for Outstanding Cell Biology Student
University of Georgia |