

Education

Dec 2014 – May 2019	University of Bonn; Studies of Epidemiology Graduated with PhD magna cum laude
Jan 2016 – May 2019	Bonn International Graduate School of Clinical and Population Sciences (BIGS CPS)
Oct 2012 – Sep 2014	University of Bonn; Studies of Psychology Graduated with Master of Science
Oct 2009 – Oct 2012	University of Bonn; Studies of Psychology Graduated with Bachelor of Science

Professional Experience

Sep 2020 – date	Affiliate, Center for Demography of Health and Aging, University of Wisconsin-Madison
Jan 2020 – date	Member, McPherson Eye Research Institute, University of Wisconsin-Madison
Jun 2019 – date	Postdoctoral researcher at the Department of Population Health Sciences – University of Wisconsin in Madison Mentor: Karen J. Cruickshanks
Jan 2017 – Apr 2017	Visiting research scholar at the Department of Population Health Sciences – University of Wisconsin in Madison; - Analysis of longitudinal data on hearing and cognition of the Beaver Dam Offspring Study
Dec 2014 – May 2019	PhD student at the group of Population Health Sciences – German Center for Neurodegenerative Diseases (DZNE) in Bonn; Advisor: Monique M.B. Breteler - Responsible for the hearing and cognitive examinations in the Rhineland Study
Feb 2014 – Mar 2014	Internship with the Section of Cognitive Psychology, Department of Psychology – University of Bonn; Advisor: Ulrich Ettinger - Analysis of experimental behavioral and fMRI data with subsequent publication

Jul 2013 – Nov 2014	Student assistant at the Section of Methodology, Psychological Assessment, and Evaluation, Department of Psychology – University of Bonn; Advisor: Uwe Kleinemas - Database administration for preparing a revitalization of a large study sample
Feb 2013 – Mar 2013	Internship with the Section of Differential and Biological Psychology, Department of Psychology – University of Bonn; Advisor: Martin Reuter - Analysis of experimental behavioral, EEG and fMRI data
Feb 2012 – Mar 2012	Internship with the Psychiatric Day Hospital for Children and Adolescents – Klinikum Oberberg; - Participation and assistance in daily procedures and therapeutic interviews
Feb 2011 – Mar 2011	Internship with the School Psychological Service – Oberbergischer Kreis; - Test implementation and analysis of intelligence and specific learning disability as well as consulting work

Conferences and Presentations

03/04/2021	Oral presentation at the American Auditory Society Annual Meeting, Virtual; Title: “Psychological Well-Being is Associated with Hearing Functions in Middle-Aged Adults“
02/09/2021	Invited oral presentation in the McPherson Eye Research Institute seminar series of the University of Wisconsin-Madison, Virtual Title: “Macular Ganglion Cell–Inner Plexiform Layer as a Marker of Cognitive and Sensory Function in Midlife“
02/02/2021	Invited oral presentation in the Department of Epidemiology Special Seminar of the University of Pittsburgh, Virtual Title: “From the Brain to the Senses and Back - A Journey Towards Common Causes and Modifiable Risk Factors of Brain Aging“
11/04/2020	Oral presentation at the Gerontological Society of America annual scientific meeting, Virtual Title: “Macular Ganglion Cell–Inner Plexiform Layer as a Marker of Cognitive and Sensory Function in Midlife“
11/03/2020	Invited oral presentation in the Geriatrics Grand Rounds of the Department of Medicine of the University of Wisconsin-Madison, Virtual Title: “Cognitive Aging in Midlife - Early Biomarkers and Psychosocial Factors“
09/23/2020	Invited Blitz Talk at the University of Wisconsin-Madison Postdoctoral Researcher Symposium, Virtual Title: “Macular Ganglion Cell-Inner Plexiform Layer as a Marker of Cognitive and Sensory Function in Midlife“

04/13/2020	Invited oral presentation in the Monday Seminar Series of the Department of Population Health Sciences of the University of Wisconsin-Madison, Virtual Title: "Common Neurodegenerative Processes in Aging - Retinal Thickness as a Biomarker for Sensory and Cognitive Function in Middle-Aged Adults"
03/05/2020	Oral presentation at the American Auditory Society Annual Meeting in Scottsdale, AZ, USA; Title: "Benefit of Musical Training for Speech Perception Later in Life"
09/19/2019	Invited Blitz Talk at the University of Wisconsin-Madison Postdoctoral Researcher Symposium, in Madison, WI, USA Title: "Associations Between Hearing Loss and Cognition over Time in Middle-Aged Adults"
07/11/2019	Oral presentation at the Midwest Auditory Research Conference in Springfield, IL, USA; Title: "Associations of Hearing Sensitivity, Central Auditory Processing, and Cognition over Time in Aging Adults"
09/12/2018	Invited oral presentation in the Graduate Research Seminar of the Department of Population Health Sciences of the University of Wisconsin in Madison, WI, USA; Title: "Determinants of Central Hearing – How Peripheral Hearing and Cognitive Functions Affect Understanding of Speech in Noise"
06/07/2018	Oral presentation at the Hearing Across the Lifespan conference in Como, Italy; Title: "Relation of Pure-Tone Audiometry and Cognitive Functions with Hearing in Noise Performance in the Rhineland Study"
10/04/2017	Invited oral presentation in the Graduate Research Seminar of the Department of Population Health Sciences of the University of Wisconsin in Madison, WI, USA; Title: "Cortical Thickness and Previous Musical Experience in Relation to the Beneficial Effect of Motor Synchronization on Auditory Processing"
10/02/2017	Poster presentation at the U13 Sensory Impairment & Cognitive Decline Workshop by the National Institute on Aging and the American Geriatrics Society in Bethesda, MD, USA; Title: "Association of Hearing and Cognition Across the Lifespan"

Honors and Awards

2021	University of Wisconsin-Madison Postdoctoral Association Postdoc Excellence Award in Mentoring
2021	University of Wisconsin Population Health Sciences Competitive Conference Fund Award
2021	Wisconsin Alzheimer's Disease Research Center REC Professional Development Award

2020	Gerontological Society of America Health Sciences Section Student Registration Award
2020	Walsh research travel award to attend the Gerontological Society of America annual meeting by the University of Wisconsin McPherson Eye Research Institute
2020	Rankin/Skatrud travel award to attend the American Auditory Society annual meeting by the Rankin Memorial Fund through the University of Wisconsin Foundation
2019	Travel grant for and by the Midwest Auditory Research Conference in Springfield, IL
2018	Oral presentation award at the BIGS CPS student retreat
2018	Travel grant for the Hearing Across the Lifespan conference in Como, Italy by the Bonn International Graduate Schools University Bonn
2017	Rising Star Award and travel grant for the U13 Sensory Impairment & Cognitive Decline Workshop by the National Institute on Aging and the American Geriatrics Society in Bethesda, MD
2016	University of Wisconsin - DZNE joint pilot project funding (\$10,000)

Professional Memberships

2020 – date	German Psychological Society (DGPs)
2020 – date	Biological and Neuropsychology section of the DGPs
2020 – date	Developmental Psychology section of the DGPs
2019 – date	Society for Epidemiologic Research
2019 – date	Gerontological Society of America
2017 – date	American Auditory Society

Programming and Spoken Languages

Programming	Matlab, R, SPSS, Filemaker
Languages	German (first language)
	English (CEFR level: usage and comprehension C2)
	Latin (proficiency certificate)

Teaching Experience

Fall 2020	Co-Instructor of POP HLTH 650 Section 15 Epidemiology of Aging (1 credit)
Spring 2020	Co-Instructor of POP HLTH 820 Graduate Research Seminar (1 credit)
Spring 2020	Invited 1 hour guest lecture “Designing an Observational Study” in the Design and Analysis of Psychological Experiments course of the Department of Psychology of the University of Wisconsin-Madison

Spring 2018	Instructor of 1.5 hours course “Mediation and Moderation” and “Interpreting Results” in BIGS CPS
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Service and Volunteer Experience

2021– date	Expert Panel Member to Update the National Strategic Research Plan (2022-2027) of the National Institute on Deafness and Other Communication Disorders
2021 – date	Task Force Co-Lead - Gerontological Society of America Emerging Scholar and Professional Organization Dissertation Writing Group
2020	Conference abstract reviewer - Gerontological Society of America annual meeting
2019 – date	Journal reviewer - Brain and Behavior - Journal of the American Geriatrics Society - Journal of Gerontology: Medical Sciences - Journal of Speech, Language, and Hearing Research
2019 – date	Chair - Population Health Sciences Postdoctoral Graduate Student Mentoring Committee
2017 – 2019	PhD student representative - Member of the BIGS CPS Teaching Committee - Organizer of BIGS CPS social events and the annual 2-day student retreat

Research Support

Ongoing

09/01/2020–08/31/2023	1 RF1 AG066837 National Institute on Aging, National Institutes of Health <i>Multisensory, Motor, and Biomarker Changes in Aging and Preclinical Alzheimer's Disease</i> Total Award: \$1,258,501 direct costs to Cruickshanks, Karen J (PI) Role: Co-Investigator
11/01/2020–10/31/2022	University of Wisconsin-Madison, Department of Ophthalmology and Visual Sciences <i>Man's Best Friend: Does Visual/Cognitive Ability in Pet Dogs Match Their Human Owners?</i> Total Award: \$37,278 direct costs to Mowat, Freya M (PI) Role: Co-Investigator

Completed

02/01/2014–01/31/2020 5 R37 AG11099
National Institute on Aging, National Institutes of Health
Epidemiology of Age-related Hearing Loss
Total Award: \$2,474,309 direct costs to Cruickshanks, Karen J (PI)
Role: Post-doc

09/01/2014–05/31/2021 5 R01 AG021917
Familial and Birth Cohort Effects on the Aging Senses
Total Award: \$5,413,126 direct costs to Cruickshanks, Karen J (PI)
Role: Post-doc

Published Publications

Merten, N., Fischer, M.E., Dillard, L.K., Klein, B.E.K., Tweed, T.S., & Cruickshanks, K.J. Benefit of Musical Training for Speech Perception and Cognition Later in Life. *Journal of Speech, Language, and Hearing Research*. Jun 29;1-12. Online ahead of print. https://doi.org/10.1044/2021_JSLHR-20-00588

Coors, A., **Merten, N.**, Ward, D.D., Schmid, M., Breteler, M.M.B., & Ettinger, U. (2021). Strong Age but Weak Sex Effects in Eye Movement Performance in the General Adult Population: Evidence from the Rhineland Study. *Vision Research*, 178, 124–133. <https://doi.org/10.1016/j.visres.2020.10.004>

Paulsen, A.J., Fischer, M.E., Pinto, A.A., **Merten, N.**, Dillard, L.K., Schubert, C.R., Huang, G.H., Klein, B.E.K., Tweed, T.S. & Cruickshanks, K.J. (2021). Incidence of hearing impairment and changes in pure tone average across generations. *JAMA Otolaryngology Head & Neck Surgery*, 147(2),151–158. <https://doi.org/10.1001/jamaoto.2020.4352>

Paulsen, A.J., Pinto, A.A., **Merten, N.**, Chen, Y., Fischer, M.E., Huang, G.H., Klein, B.E.K., Schubert, C.R., & Cruickshanks, K.J. (2021). Factors associated with the thickness of the macular ganglion cell-inner plexiform layer in a cohort of middle-aged U.S. adults. *Optometry and Vision Science*, 98(3), 295-305. <https://doi.org/10.1097/OPX.0000000000001650>

Merten, N., Paulsen, A.J., Pinto, A.A., Chen, Y., Dillard, L.K., Fischer, M.E., Huang, G.H., Klein, B.E.K., Schubert, C.R., & Cruickshanks, K.J. (2020). Macular Ganglion Cell-Inner Plexiform Layer as a Marker of Cognitive and Sensory Function in Midlife. *Journals of Gerontology: Medical Sciences*, 75(9), e42–e48. <https://doi.org/10.1093/gerona/glaa135>

Merten, N., Fischer, M.E., Tweed, T.S., Breteler, M.M.B., & Cruickshanks, K.J. (2020). Associations of Hearing Sensitivity, Higher-order Auditory Processing, and Cognition over Time in Middle-aged Adults. *Journals of Gerontology: Medical Sciences*, 75(3), 545–551. <https://doi.org/10.1093/gerona/glz189>

Ward, D.D. Mauschitz, M.M. Bönniger, M.M., **Merten, N.**, Finger, R.P., & Breteler, M.M.B. (2020). Association of Retinal Layer Measurements and Adult Cognitive Function: A Population-Based Study. *Neurology*, 95(9), e1144-e1152. <https://doi.org/10.1212/WNL.00000000000010146>

Oumohand, S.E., Ward, D.D., Boenniger, M.M., **Merten, N.**, Kirschbaum, C., & Breteler, M.M.B. (2020). Perceived stress but not hair cortisol concentration is related to adult cognitive performance. *Psychoneuroendocrinology*, 121:104810. <https://doi.org/10.1016/j.psyneuen.2020.104810>

Merten, N., Kramme, J., Breteler, M.M.B., & Herholz, S.C. (2019). Previous Musical Experience and Cortical Thickness Relate to the Beneficial Effect of Motor Synchronization on Auditory Function. *Frontiers in Neurosciences*, 13:1042. <https://doi.org/10.3389/fnins.2019.01042>

Merten, N. (2019). The Auditory System and Its Relation to Cognitive Function in the Process of Aging (Doctoral dissertation). Retrieved from Universitäts- und Landesbibliothek Bonn. <http://hss.ulb.uni-bonn.de/2019/5448/5448.htm>

Ettinger, U. *, **Merten, N.** * & Kambeitz, J. (2016). Meta-analysis of the association of the SLC6A3 3'-UTR VNTR with cognition. Neuroscience & Biobehavioral Reviews, 60, 72–81.
<https://doi.org/10.1016/j.neubiorev.2015.09.021> * *equal contribution*

Kasparbauer, A.-M., **Merten, N.**, Aichert, D. S., Wöstmann, N., Meindl, T., Rujescu, D., & Ettinger, U. (2015). Association of COMT and SLC6A3 polymorphisms with impulsivity, response inhibition and brain function. Cortex, 71, 219–231. <https://doi.org/10.1016/j.cortex.2015.07.002>