

DAVID M. GOOLER

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Education

M.A.	Audiology	Department of Speech and Hearing Science University of Illinois at Urbana-Champaign Champaign, Illinois	1998
Postdoctoral Training		Department of Molecular and Integrative Physiology (formerly, Department of Physiology and Biophysics) University of Illinois at Urbana-Champaign Urbana, Illinois Laboratory of Dr. A. S. Feng	1987 to 1998
Ph.D.	Neuroscience	Center for Brain Research University of Rochester Rochester, New York Dissertation advisor: Dr. W. E. O'Neill	1987
M.S.	Neuroscience	Center for Brain Research University of Rochester Rochester, New York	1982
B.S.	Biology	Department of Biological Sciences Union College Schenectady, New York	1979

Professional Experience

Senior Lecturer II	Department of Speech, Language, and Hearing Sciences (formerly: Department of Communication Disorders) University of Massachusetts Amherst, Amherst Massachusetts	Jan. 2018 to present
Instructor	Department of Speech and Hearing Science Neuroscience Program Affiliate Coordinator of Clinical Research and Education, Audiology (2009-2012) University of Illinois at Urbana-Champaign, Champaign, Illinois	Aug. 2005 to Dec. 2017
Assistant Professor	Department of Speech and Hearing Science Neuroscience Program Affiliate University of Illinois at Urbana-Champaign, Champaign, Illinois	Jan. 1999 to Aug. 2005
Clinical Fellow in Audiology/Audiologist	Department of Otolaryngology Carle Clinic Association, Urbana, Illinois	Jan. 1998 to Dec. 1998

Postdoctoral Research Associate Department of Molecular and Integrative Physiology (formerly: Department of Physiology and Biophysics) University of Illinois at Urbana-Champaign, Urbana, Illinois	1987 to 1998
Teaching Assistant and Lab Instructor “Medical Neuroscience” “Introduction to Neuroscience” University of Rochester, Rochester, New York	1980 to 1981
Research Assistant (summer) Department of Pharmacology State University of New York Upstate Medical School Syracuse, New York	1978
Senior Honors Research Project Department of Biological Sciences Union College, Schenectady, New York	1978 to 1979

Membership in Scientific and Professional Organizations

American Speech-Language-Hearing Association

Clinical License and Certification

Certificate of Clinical Competence in Audiology, American Speech-Language-Hearing Association
Licensed Audiologist # 4721, Commonwealth of Massachusetts Division of Professional Licensure

Honors and Awards

Nominated for a UMass Amherst Distinguished Teaching Award 2021-2022

List of Teachers Ranked as Excellent by Their Students, University of Illinois, multiple terms 1999 - 2017

Nominated for the University of Illinois at Urbana-Champaign Excellence in Undergraduate Teaching Award, 2010-2011

College of Applied Health Sciences Excellence in Undergraduate Teaching Award, 2010-2011

Invited book chapter: Rose, G.J. & Gooler, D.M. (2006). Function of the Amphibian Central Auditory System. In P.M. Narins and A.S. Feng (Volume Eds.), R.R. Fay and A.N. Popper (Series Eds.), *Springer Handbook of Auditory Research: Hearing and Sound Communication in Amphibians* (pp. 250-290). New York: Springer.

Arnold O. Beckman Research Award from University of Illinois Campus Research Board for research proposal entitled “Central auditory responses under cooling-induced reversible unilateral deafening”, 2003

Selected for participation in a study entitled “Characteristics and teaching strategies of effective

undergraduate teachers at the University of Illinois at Urbana-Champaign", 2003

Individual National Research Service Award, 1987-1989

Postdoctoral research and training grant from the National Institutes of Health - NINCDS

Invited Presentation: 1986 Annual Meeting of the Society for Neuroscience, Symposium on Physiological Mechanisms of Vocalizations "Control of vocal frequency by anterior cingulate cortex in the bat".

Bartlett Prize, Honorable Mention, 1985

"Best presentation at the Society for Neuroscience Annual Meeting by a University of Rochester student", second place award

National Institute of Mental Health predoctoral training-grant support, 1979-1982

awarded by the Center for Brain Research, University of Rochester

Honors in Biology, senior research thesis: The effects of nutrition on pine vole reproductive success, Union College, 1979

Research Grants

2000 "Enhancement of sound level discrimination in human listeners", University of Illinois Campus Research Board, \$29,767

2002 "Temporal features of sound and level discrimination in hearing-impaired listeners", Mary Jane Neer Research Fund, \$11,458

2003 "Central auditory responses under cooling-induced reversible unilateral deafening", University of Illinois Campus Research Board, \$8,257

1/2005- 12/2007 "Central responses to reversible unilateral deafening", NIDCD, NIH 1 R03 DC06810, \$150,000

Graduate Student Research Directed

University of Massachusetts Amherst

AuD

Eileen Skudris: Development of local, young-adult normative distortion product otoacoustic emission (DPOAE) data for the Interacoustics Titan with DPOAE440, Chair Capstone Committee, May 2020

Carly Sughrue: Hearing conservation program for college-aged music students, Chair Capstone Committee, May 2020

Katelyn Donoghue: Hearing conservation education in student musicians: a hands on approach, Capstone Committee Member, May 2020

Amber Fields: Effects of presentation group size on attitudes, knowledge, and compliance in a hearing conservation education program for college-aged music students, Chair Capstone Committee, May 2021

Colleen O'Dwyer: Effects of asynchronous vs. synchronous presentation on attitudes, knowledge, and compliance in a hearing conservation education program for college-aged music students, Capstone Committee Member, May 2021

Danielle Cuozzo: Effectiveness of the Hearing Handicap Inventory for Adults (HHIA) to compare social/emotional perceptions in unaided & aided conditions, Chair Capstone Committee, April 2022

Maguatte Mbengue: Effectiveness of training for homecare/CNA staff to assist clients who are hard of hearing with aided communication, Capstone Committee Member, April 2022

Melissa Leslie: Student musician attitudes towards hearing protection and the examination of preferences for different types of hearing protection, Chair Capstone Committee, October 2022

Kristen McNamara: Sound localization in human subjects using loudspeakers in a clinical setting, Capstone Committee Member, May 2023

Sabrina Gemme: Interventional audiology educational pilot program, Chair Capstone Committee, in progress

Megan Perro: Threshold accuracy and participant perceptions of online hearing tests, Chair Capstone Committee, in progress

Haley Belanger: Development of auditory evoked potential threshold norms using click and chirp stimulus, Chair Capstone Committee, in progress

University of Illinois at Urbana-Champaign

PhD

Yang-soo Yoon: Consonant loss profile and perceptual confusions for hearing-impaired listeners in noise, Dissertation Director, Chair of Preliminary and Final Exam Committees, May 2008

AuD

Julie Kenny: The development of distortion product otoacoustic emission amplitude norms for the University of Illinois at Urbana-Champaign Audiology Clinic for young adults with normal hearing, Research Project Director, April 2011

Kathleen Miller: Are reduced distortion product otoacoustic emissions related to risk factors for hearing loss in college students with otherwise normal hearing sensitivity?, Research Project Co-director, April 2012

Lydia Vincent-Doty: Effects of acute and chronic cigarette smoking on distortion product otoacoustic emissions, Research Project Director, June 2012

Ryan Farris: Comparing distortion product otoacoustic emissions before and after auditory brainstem response stimulus exposure, Research Project Director, April 2013

Kathleen M. Burke: Local sample norms for the cortical auditory evoked potentials (CAEPS) for the Bio-logic Navigator Pro, Research Project Co-director, May 2013

Catherine Peters: The effect of frequency-specific tone-burst stimuli on auditory sensory gating of the P50 evoked potential in a paired-stimulus paradigm, Research Project Director, April 2015

Danielle Lynch: Development of local normative data for distortion product otoacoustic emissions on the Bio-logic Scout at the University of Illinois Audiology Clinic, Research Project Director, May 2015

Martine Fenstermacher: Comparison of auditory gating of the P50 auditory evoked potential in musicians and non-musicians, Research Project Director, May 2015

Lyndsey Yarde: Predictors of hearing protection use in workers enrolled in an annual hearing conservation program, Research Project Director, May 2016

Mariah Richard: Clinical prediction of hearing aid use with the Acceptable Noise Level (ANL) test, Research Project Director, June 2017

Katherine Coobs: Comparison of treatment methodology for idiopathic sudden sensorineural hearing loss, Research Project Director, August 2018

Andrea Arns: The relationship between peripheral hearing loss and cognitive decline: A critical review, Research Project Co-Director, April 2019

Sarah Gurnik: Understanding collegiate band members' motivation to engage in positive hearing health behavior: An application of the health belief model, Research Project Director, April 2019

Ragnar Lindberg: Effects of electrode montage on the LS-Chirp 40's auditory brainstem response, Reader, February 2022

MS

Heidi Peeters: Perceptual limitations for processing sequentially occurring acoustic events: the auditory attentional blink, Research Thesis Director, December 2004

Courses Taught

University of Massachusetts Amherst

(current course identifiers and names listed, formerly COMM-DIS)

Graduate Courses

SLHS 570 Research in Communication Disorders (F2018, Sp2020, Sp2021, Sp2023)

SLHS 640 Advanced Diagnostics in Audiology (F2018-F2023)

SLHS 690P Audiology Practice Management (Sp2019, F2020, F2022)

SLHS 690N Auditory Neuroscience (F2019, F2021, F2023)

SLHS 698A Practicum Speech/Language/Audiology [Clinical supervision of AuD students in the Audiology Clinic] (Sp2018-F2023)

Undergraduate Courses

SLHS 211 Anatomy and Physiology of the Speech and Hearing Mechanism (F2018-F2023)
SLHS 214 Introduction to Hearing Science (Sp2018, Sp2023)
SLHS 312 Introduction to Speech Science (Sp2018-Sp2022)
SLHS 312 Online: Introduction to Speech Science (F2018-F2022)
SLHS 316 Introduction to Aural Rehabilitation (Sp2023)
SLHS 490A Hearing Health and Society (Sp2018, Sp2020, Sp2022)

University of Illinois at Urbana-Champaign

Graduate Courses

SHS 550 Assessment of Audition and Auditory Disorders (F1998, F2000, F2001, F2002, F2003, F2004, F2006, F2007, F2008, F2009, F2010, F2011, F2012, F2013, F2014, F2015, F2016, F2017)
SHS 541 Clinical Auditory Anatomy and Physiology (Sp2000, Sp2002, Sp2004, Su2014, Sp2015, Sp2016, Sp2017)
SHS 540 Psychoacoustics (Sp 2016)
SHS 570 Quantitative Reasoning (co-taught with Karen Kirk; F2015, F2016)
SHS 593 Topics in Audiology: Hearing Conservation, Tinnitus, and Central Auditory Processing Disorders (Sp2001, Sp2003, Sp2005)
SHS 495 Topics in Speech, Language, and Hearing Science (co-taught with Ron Chambers and Charissa Lansing; section on auditory anatomy and physiology, F2001, F2003)
SHS 593 Seminar in the presentation of clinical and research data (co-taught with Ron Chambers and Charissa Lansing, Sp2006)

Graduate Independent Study Topics:

Auditory Neuroscience, Physiology of Aging in the Auditory System, Introduction to Psychoacoustics, Perception and Temporal Processing, Models in Psychoacoustics, Descending Neural Pathways to the Cochlea, Central Mechanisms of Tinnitus, Temporal Processing in Speech Perception, Sensori-motor Integration in the Auditory Cortex, Auditory Physiology: Auditory Cortex and Cortical Plasticity, Hearing Loss and Neural Plasticity in the Auditory System, Visual Influence on Auditory Perception

Undergraduate Courses

SHS 450 Introduction to Audiology and Hearing Disorders (Sp1999, Sp2000, Sp2001, F2001, F2002, F2003, F2004, F2013, F2014, F2015, F2016, F2017)
SHS 240 Introduction to Sound and Hearing Science (F1999, F2000, Sp2001, Sp2002, Sp2003, Sp2004, Sp2005, Sp2008, Sp2010, Sp2011, Sp2012, Sp2015, Sp2017)
SHS 170 Introduction to Human Communication Systems & Disorders (F2005, Sp2006, F2006, Sp2007, F2007, Sp2008, F2008, Sp2009, F2009, Sp2010, F2011, Sp2012, F2012, Sp2013, Sp2014, F2014, Sp2016, Sp2017)

SHS 150 Hearing Processes and Disorders (F2005, Sp2006, F2006, Sp2007, F2007, Sp2008, F2008, Sp2009, F2009, F2015, F2016, F2017)

SHS 270 Communication Disability in the Media (F2005, Sp2006, F2006, Sp2007, F2013)

SHS 352 Hearing Health and Society (Sp2010, Sp2011, Sp2012, Sp2013, Sp2014, Sp2015, Sp2016, Sp2017)

Undergraduate Independent Study Topics:

Diagnostic audiology, Cochlear implants: technology, Deaf community view, social impact, speech perception, case studies; Meniere's Disease, Perception of music, Electrophysiological measures of auditory gating

Research projects in human psychoacoustics, speech perception, perception of tonal language, temporal processing, auditory attentional blink, survey of cell phone use by hearing impaired listeners, auditory gating in response to speech stimuli, and auditory neurophysiology

Service

University of Massachusetts Amherst

Profession

Ad-hoc reviewer for scientific journals:
Journal of Comparative Physiology-A

University

Representing the Massachusetts Society of Professors (MSP) as a member of UMass Amherst Multi-union Environmental Health and Safety Committee, organized to assess needs and address solutions for a broad range of environmental health and safety issues at UMass Amherst

School of Public Health and Health Sciences

Judge for School of Public Health and Health Sciences Research Day (April 3, 2018), poster judge and student research abstract judge for UMass Amherst Rho Chapter of the Delta Omega Public Health Honorary Society

Department of Speech, Language, and Hearing Sciences

Graduate Admissions Committee (2019-2021)

Ad Hoc Holistic Admissions Committee (2020-2023) worked to develop an holistic approach to admissions including development of a set of essay prompts to encourage a more diverse pool of applicants

Department Personnel Committee (2020-2023)

Ad Hoc Committee to develop merit criteria for non-tenure track faculty (2020-2022)

Coordinating development of a Hearing Conservation Program with the Department of Music and Dance and providing educational sessions in hearing health for music students

Working with UMass Environmental Health and Safety to address hearing conservation on campus

Coordinator of 4th year AuD student externships in Audiology (2019-2022)

Audiology Lecturer Search Committee (2021)

Member of committee that updated the Doctor of Audiology Comprehensive Exam. Generated summary of exam results (2022-2023)

Working with Fuel Medical Group to update marketing materials and refine operations to ensure best

practices and clinic success
Advisor for AuD students to achieve clinical competencies across clinical practicum sites
Clinical audiology direct service during winter and summer

University of Illinois at Urbana-Champaign

Profession

Ad-hoc reviewer for scientific journals:

American Journal of Audiology
Behavior Research Methods, Instruments, & Computers
Brain Research
Journal of Comparative Physiology-A
Journal of Neurophysiology
The Journal of Experimental Biology

Ad-hoc reviewer for National Science Foundation

Book review for the American Physiological Society: "Auditory Physiology and Perception"

Text book review of manuscript for Delmar Learning: "Anatomy and Physiology of Hearing for Audiologists"

Text book chapters review of manuscript for Thomson Delmar Learning proposed text on "Hearing Science"

Textbook chapters review of the manuscript for Worth Publishing: "Sensation and Perception"

Public

Brain Awareness Day - organizing committee and presenter for public outreach sponsored by the UIUC Neuroscience Program. Presented information about neuroscience research that culminated in interactive Brain Awareness Day, Champaign, and Urbana, IL. 2002-2005, 2008, 2009, 2010

Newspaper interviews on effects of noise and loud sound on hearing and hearing loss, 2006, 2008

Disability Resource Expo – presenter and supervisor of students in providing information to the public on hearing health, Urbana IL. 2010, 2011, 2012

Organized student/faculty presentation about hearing health and clinical services for residents of Clark Lindsey Village, Urbana IL. 2010

University of Illinois

Non-Tenure Track Faculty Coalition (NTFC) Executive Committee, Grievance Committee chair, (2017)

Non-Tenure Track Faculty Coalition (NTFC) Grievance Committee member, NTFC Steward to the College of Applied Health Sciences (2016)

Campus Research Board - Ad hoc reviewer

UIUC Medical Scholars Program – 2005, 2008 interviewer

College of Applied Health Sciences

I-Health Curriculum Committee

Alleged Capricious Grading Committee

Bob Bilger Graduate Student Award Committee 2004, 2006 Chairperson; 2005, 2008 member

Elections and Credentials Committee

Executive Committee (substitute)

Health and Safety Committee – Chairperson, 1999-2000

Search committee member for staff position
Applied Health Sciences Teaching Academy - member of expert panel

Department of Speech and Hearing Science

Director of Clinical Education, Search Committee Co-Chair 2016-2017
Director of Clinical Education, Search Committee Chair 2014-2015,
Coordinator "HearForm" taskforce, customize, train staff, and implement digital record system for
department clinics and research 2012-2015
Coordinator of Clinical Research and Education, Audiology 2009-2012
Audiology Working Group
AuD Task Force
Graduate Admissions Committee
Undergraduate Curriculum Committee
PhD Curriculum Committee
Technology Committee
Human Subjects Committee
Academic, Comprehensive Exam, Thesis, Preliminary Exam, and Dissertation Committee member
Faculty Search Committees
Program Policy Committee
University of Illinois McKinley Health Fairs, represented Audiology Clinic

Neuroscience Program

Neuroscience Program – applicant interviewer, annual
Comprehensive Exam, Preliminary Exam, and Dissertation Committee member
Brain Awareness Day, Organizing committee 2002, 2003; presenter 2002 – 2005, 2008, 2009, 2010
C. Ladd Prosser Award Committee 2006

Doctoral Dissertation

Gooler, D.M. (1988). Species specific vocalizations elicited by microstimulation of anterior cingulate cortex in the echolocating bat, *Pteronotus parnelli parnelli*: characteristics of emissions and topographic representation of vocal frequency. (Doctoral dissertation, University of Rochester, Rochester N.Y., 1987). *Dissertation Abstracts International*, 49 (03), 650B.

Publications

Gooler, D.M. & O'Neill, W.E. (1987). Topographic representation of vocal frequency demonstrated by microstimulation of anterior cingulate cortex in the echolocating bat, *Pteronotus parnelli parnelli*. *Journal of Comparative Physiology*, 161, 283-294.

Gooler, D.M. & O'Neill, W.E. (1988). The central control of biosonar signal production in bats demonstrated by microstimulation of anterior cingulate cortex in the echolocating bat, *Pteronotus parnelli parnelli*. In J.D. Newman (Ed.), *Physiological Mechanisms of Vocalization* (pp. 153-183). New York: Plenum Press.

Gooler, D.M. & O'Neill, W.E. (1988). Central control of frequency in biosonar emissions of the mustached bat. In P.W.B. Moore and P.E. Nachtigal (Eds.), *Animal Sonar: Processes and Performance* (pp. 265-269). New York: Plenum Press.

O'Neill, W.E., Frisina, R.D., Gooler, D.M., & Zettel, M. (1988). Target range processing pathways in the auditory system of the mustached bat. In P.W.B. Moore and P.E. Nachtigal (Eds.), *Animal*

- Sonar: Processes and Performance* (pp. 253-258). New York: Plenum Press.
- O'Neill, W.E., Frisina, R.D., & Gooler, D.M. (1989). Functional organization of mustached bat inferior colliculus I. Representation of FM frequency bands important for target ranging revealed by ¹⁴C-2-deoxyglucose autoradiography and single-unit mapping. *Journal of Comparative Neurology*, 284, 60-84.
- Feng, A.S., Hall, J.C., & Gooler, D.M. (1990). Neural basis of sound pattern recognition in anurans. *Progress in Neurobiology*, 34, 313-329.
- Gooler, D.M. & Feng, A.S. (1992). Temporal coding in the frog auditory midbrain: The influence of duration and rise-fall time on the processing of complex amplitude-modulated stimuli. *Journal of Neurophysiology*, 67, 1-22.
- Gooler, D.M., Condon, C.J., Xu, J.-H., & Feng, A.S. (1993). Sound direction influences the frequency-tuning characteristics of neurons in the frog inferior colliculus. *Journal of Neurophysiology*, 69, 1018-1030.
- Xu, J., Gooler, D.M., & Feng, A.S. (1994). Single neurons in the frog inferior colliculus exhibit direction-dependent frequency selectivity to iso-intensity tone bursts. *Journal of the Acoustical Society of America*, 95, 2160-2170.
- Xu, J., Gooler, D.M., & Feng, A.S. (1996). Effects of sound direction on the processing of amplitude-modulated signals in the frog inferior colliculus. *Journal of Comparative Physiology*, 178, 435-445.
- Gooler, D.M., Xu, J., & Feng, A.S. (1996). Binaural inhibition is important in shaping the free-field frequency selectivity of single neurons in the inferior colliculus. *Journal of Neurophysiology*, 76, 2580-2594.
- Rose, G.J. & Gooler, D.M. (2006). Function of the Amphibian Central Auditory System. In P.M. Narins and A.S. Feng (Volume Eds.), R.R. Fay and A.N. Popper (Series Eds.), *Springer Handbook of Auditory Research: Hearing and Sound Communication in Amphibians* (pp. 250-290). New York: Springer.
- Yamaguchi, A., Gooler, D., Herrold, A., & Pong, W. (2008). Temperature-dependent regulation of vocal pattern generator. *Journal of Neurophysiology*, 100, 3134-3143.
- Phatak, S.A., Yoon, Y., Gooler, D. M., & Allen, J. B. (2009). Consonant recognition loss in hearing impaired listeners. *Journal of the Acoustical Society of America*, 126, 2683-2694.
- Yoon, Y., Allen, J. B., & Gooler, D. M. (2012). Relationship between consonant recognition in noise and hearing threshold. *Journal of Speech, Language, and Hearing Research*, 55, 460-473.
- Yoon Y.S., Gooler, D.M., Allen, J.B., & Gho, J.S. (2017). Comparisons in consonant confusions with and without gain for the hearing-impaired listeners. *Clinical Archives of Communication Disorders*, 2(1), 69-84.
- Yoon, Y.S., Gooler, D.M., & Gho, J. (2019). Perceptual confusions for temporally smoothed envelope of consonants in normal hearing listeners. *Clinical Archives of Communication Disorders*, 4(2), 113-127.

Interactive educational web-based program

Loucks, T. M. & Gooler, D. M. (2012). Audiology: anatomy and physiology of hearing. [http://anatomy.tv/audiology/cedaandp/audiology/introduction to audiology.aspx](http://anatomy.tv/audiology/cedaandp/audiology/introduction%20to%20audiology.aspx). London: Primal Pictures.

Published Book Review

Gooler, D.M. (1993). Review of the book *Auditory Physiology and Perception*. *The Physiologist*, 36, 49.

Manuscripts in Preparation

Long, L., Loucks, T., Gooler, D.M., & Chambers, R. D. Sensory gating in adults who stutter.
Buenting, E., Lindberg, R. R., Gooler, D.M., & Chambers, R.D. Level specific chirp effects on the auditory brainstem response.

Published Abstracts of Conference Presentations

- Gooler, D.M. & O'Neill, W.E. (1983). Stimulus-dependent labeling with [^{14}C]-2-deoxyglucose in the inferior colliculus of the mustached bat. *Society for Neuroscience Abstr.* 9: 212.
- Gooler, D.M. & O'Neill, W.E. (1984). Echolocation sounds elicited from the mustached bat by electrical stimulation of a supracallosal region of the brain. *Society for Neuroscience Abstr.* 10: 399, 1984.
- Gooler, D.M. & O'Neill, W.E. (1985). Central control of frequency in biosonar vocalizations of the mustached bat. *Society for Neuroscience Abstr.* 11: 547.
- O'Neill, W.E., Frisina, R.D., Gooler, D.M., & Zettel, M. (1986). Target range processing pathways in the mustached bat auditory system. *XXX Congress of International Union of Physiological Sciences*.
- O'Neill, W.E., Gooler, D.M., & Frisina, R.D. (1987). Projections to a tonotopically-organized vocal motor region of anterior cingulate cortex in the mustached bat. *Society for Neuroscience Abstr.* 13: 1099.
- Gooler, D.M., Hall, J.C., & Feng, A.S. (1988). Response selectivity of neurons in the frog torus semicircularis to temporal components of amplitude-modulated acoustic stimuli. *Society for Neuroscience Abstr.* 14: 649.
- Feng, A.S., Hall, J.C., Gooler, D.M., Chang, S-H., & Condon, C. (1989). How does the frog auditory system compute temporal information? In J. Erber, R. Menzel, H.-J. Pflugger & T. Dietmar (Eds.) *Proceedings of the Second International Congress of Neuroethology*. Thieme Medical Publ., N. Y., p 87.
- Condon, C.J., Chang, S.-H., Gooler, D.M., Hall, J.C., & Feng, A.S. (1990). Functional role of phasic neurons in sound pattern recognition. *Midwinter Meeting of the Association for Research in Otolaryngology.* 13: 263.
- Gooler, D.M., Condon, C.J., & Feng, A.S. (1990). Sound direction influences the frequency-tuning characteristics of midbrain auditory neurons. *Midwinter Meeting of the Association for Research in Otolaryngology.* 13: 271.
- Condon, C.J., Chang, S.-H., Gooler, D.M., Hall, J.C. Lin, W.Y., White, K.R., & Feng, A.S. (1990). Role of phasic neurons in the processing of temporal information in the frog auditory system. *Society for Neuroscience Abstr.* 16: 920.
- Gooler, D.M., Condon, C.J., & Feng, A.S. (1990). The influence of sound direction on processing of complex sounds by midbrain auditory neurons. *Society for Neuroscience Abstr.* 16: 921.
- Xu, J.-H., Gooler, D.M., & Feng, A.S. (1992). Responses of single neurons in the frog auditory midbrain to iso-intensity tone bursts reveal directional-dependent frequency selectivity. *Proceedings of the Third International Congress of Neuroethology.* p. 158.
- Xu, J.-H., Gooler, D.M., & Feng, A.S. (1993). Effect of sound direction on spectral and temporal

- processing on neurons in the frog inferior colliculus. *Midwinter Meeting of the Association for Research in Otolaryngology*. 16: 128.
- Gooler, D.M., Xu, J.-H., & Feng, A.S. (1995). Binaural inhibition is important in shaping the free-field frequency tuning of neurons in the inferior colliculus. *Midwinter Meeting of the Association for Research in Otolaryngology*. 18: 102.
- Gooler, D.M., Xu, J.-H., & Feng, A.S. (1995). Binaural inhibition enhances the free-field frequency tuning of neurons in the inferior colliculus. *Proceedings of the Fourth International Congress of Neuroethology*.
- Gooler, D.M., Ratnam, R., Lin, W.Y., & Feng, A.S. (1997). Sound direction influences the ability of midbrain auditory neurons to detect signals embedded in noise. *Society for Neuroscience Abstr.* 23: 733.
- Gooler, D.M. & Galazyuk, A.V. (2000). Enhancement of sound level discrimination in humans. *Midwinter Meeting of the Association for Research in Otolaryngology*. 23.
- Gooler, D.M. & Galazyuk, A.V. (2000). Time course of sound can improve level discrimination in listeners. *American Speech-Language-Hearing Association Annual Convention*. 5(16):69.
- Gooler, D.M. & Galazyuk, A.V. (2001). Temporal patterns of sound influence level discrimination in humans. *Midwinter Meeting of the Association for Research in Otolaryngology*. 24:246.
- Gooler, D.M. & Galazyuk, A.V. (2002). Differential influence of temporal parameters on level discrimination within a sequence of sound pulses. *Midwinter Meeting of the Association for Research in Otolaryngology*. 25: 178.
- Gooler, D.M. & Galazyuk, A.V. (2003). Response properties of neurons in the frog auditory midbrain during reversible unilateral hearing loss. *Midwinter Meeting of the Association for Research in Otolaryngology*. 26.
- Yoon, Y. & Gooler, D.M. (2003). The effects of three temporal cues on the detection of increments and decrements in intensity. *145th Meeting of the Acoustical Society of America*.
- Widholm, J.J., Powers, B.E., Lasky, R.E., Gooler, D.M., & Schantz, S.L. (2003). Combined developmental exposure to PCBs and methylmercury in rats does not exacerbate auditory impairments induced by PCBs. *Dioxin 2003 Conference*.
- Widholm, J.J., Powers, B.E., Roegge, C.S., Lasky, R.E., Gooler, D.M., & Schantz, S.L. (2004). Auditory and motor impairments in rats exposed to PCBs and methylmercury during early development. *Illinois PCB Conference*.
- Peeters, H. & Gooler, D.M. (2005). Limitations in auditory attentional processing: the auditory attentional blink vs. backward masking. *Midwinter Meeting of the Association for Research in Otolaryngology*. 28.
- Yoon, Y. & Gooler, D.M. (2005). Recognition of temporally smeared time-intensity envelope of speech as a function of signal-to-noise ratio. *Midwinter Meeting of the Association for Research in Otolaryngology*. 28.
- Yoon, Y., Gooler, D.M., & Allen, J.B. (2005). Consonant confusions for temporally smeared envelope of syllables in noise. *150th Meeting of the Acoustical Society of America*.
- Powers, B.E., Widholm, J.J., Gooler, D.M., Lasky, R.E., Schantz, S.L. (2005). Developmental exposure to PCBs causes auditory impairments in rats. *SOT Annual Meeting*; New Orleans, LA.
- Powers, B.E., Widholm, J.J., Gooler, D.M., Lasky, R.E., & Schantz, S.L. (2006). Auditory impairments in rats exposed to PCBs during development. *SOT Annual Meeting*; San Diego, CA.
- Yoon, Y., Gooler, D.M., & Allen, J.B. (2006). Comparison of information extracted by normal hearing and hearing-impaired listeners from temporally smeared envelopes of syllables in noise. *Midwinter Meeting of the Association for Research in Otolaryngology*. 29.
- Yoon, Y., Allen, J.B., & Gooler, D.M. (2006). Signal-to-noise ratio loss and consonant perception in hearing impairment under noisy environment. *International Hearing Aid Research Conference, IHCON*.

- Yoon, Y., Gooler, D.M., & Allen, J.B. (2006). The effect of noise vocoder signal processing on consonant recognition in normal hearing and hearing-impaired listeners in noise. *International Hearing Aid Research Conference, IHCON*.
- Powers, B.E., Widholm, J.J., Gooler, D.M., Lasky, R.E., & Schantz, S.L. (2007). Effects of developmental exposure to PCBs and methylmercury on the auditory system in rats. *NBTS Annual Meeting*; Pittsburgh, PA.
- Gooler, D.M. (2007). Altered frequency selectivity in frog auditory midbrain during reversible unilateral hearing loss. *The 8th congress of the International Society of Neuroethology* 8: 132.
- Gooler, D.M. (2008). Frequency selectivity in frog auditory midbrain is altered by reversible unilateral hearing loss. *Midwinter Meeting of the Association for Research in Otolaryngology*. 31.
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