

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 and Research Experience

Instructor, member graduate faculty 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 present
Assistant Professor Department of Speech and Hearing Science Neuroscience Program Affiliate (2001-present) University of Illinois at Urbana-Champaign, Champaign, Illinois	Jan. 1999 to Aug. 2005
Clinical Fellowship in Audiology 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

Graduate Student Center for Brain Research University of Rochester, Rochester, New York	1979 to 1987
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

Acoustical Society of America
American Speech-Language-Hearing Association
Association for Research in Otolaryngology
International Brain Research Organization
Society for Neuroscience

Clinical Certification

Certificate of Clinical Competence in Audiology, American Speech-Language-Hearing Association
Licensed Audiologist, State of Illinois Department of Professional Regulation

Honors and Awards

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

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; No-cost extension 2008, 2009

Graduate Student Research Directed

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, Chair of Preliminary and Final Exam Committees, 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, Chair of Preliminary and Final Exam Committees, June 2012

Ryan Farris: Comparing distortion product otoacoustic emissions before and after auditory
brainstem response stimulus exposure, Research Project Director, Chair of Preliminary and Final
Exam Committees 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, Chair of Final Exam Committee, 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

Lauren Schuster: The effect of stimulus trial grouping on weighted averages of the P50 auditory evoked potential for studying sensory gating, Research Project Director, in progress September 2015

Lyndsey Yarde: Dosimetry of acoustic environment and hearing conservation for workers in the Physical Plant at the University of Illinois, Research Project Director, April 2016

MS

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

University Teaching

Graduate Courses

Assessment of Audition and Auditory Disorders

Clinical Auditory Anatomy and Physiology (Auditory Neuroscience and Clinical Correlates)

Topics in Audiology: Hearing Conservation, Tinnitus, and Central Auditory Processing Disorders

Seminar in the presentation of clinical and research data (joint-taught)

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

Introduction to Audiology and Hearing Disorders

Introduction to Sound and Hearing Science

Introduction to Human Communication Systems & Disorders

(Human Communication: Systems, Processes, and Disorders)

Hearing Health for the Individual and Society

Communication Disability in the Media

Hearing Health and Society

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

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"

Text book chapters review of 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

Campus Research Board - Ad hoc reviewer

UIUC Medical Scholars Program – 2005, 2008 interviewer

Neuroscience Program – applicant interviewer

College

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

Search committee for staff position

Applied Health Sciences Teaching Academy - member of expert panels

Department

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 - present

Coordinator of Clinical Research and Education, Audiology 2009-2012

Audiology Working Group

AuD Task Force

Undergraduate Curriculum Committee
Technology Committee
Human Subjects Committee
Ph.D. Curriculum 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
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.

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. London: Primal Pictures.

Published Book Review

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

Manuscripts Submitted for Publication: Under Revision

Gooler, D.M., & Galazyuk, A.V. Increment detection within sequences of pulses as a function of interpulse interval. (submitted to *Hearing Research*, under revision).

Manuscripts in Preparation

Yoon, Y. and Gooler, D.M. Recognition of temporally smoothed time-intensity envelope of speech as a function of signal-to-noise ratio.

Yoon, Y. and Gooler, D.M. Effects of speech envelope smoothing and signal-to-noise ratio on syllable recognition in hearing-impaired listeners.

Gooler, D.M., and Yoon, Y. The effects of three temporal cues on the detection of increments and decrements in intensity

Published Abstracts of Conference Presentations

- Gooler, D.M. & O'Neill, W.E. (1983). Stimulus-dependent labeling with [¹⁴C]-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. Pflugel & 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.
- Yoon, Y., Allen, J.B., & Gooler, D.M. (2008). Comparisons in consonant confusions and loss profiles with and without linear frequency gains in hearing impairment under noisy environment. *International Hearing Aid Research Conference, IHCON*.
- Chon, H.C., Steger, S. J., Ambrose, N., Gooler, D. M., & Loucks, T. (2008). Individual variability in delayed auditory feedback effects on speech fluency. *American Speech-Language-Hearing Association Annual Convention*.
- Gooler, D.M. & Wendorf, L. (2009). The auditory attentional blink: target identity and order influence performance. *Midwinter Meeting of the Association for Research in Otolaryngology*. 32.
- Chon, H.C., Kraft, S. J., Ambrose, N., Gooler, D. M., & Loucks, T. (2009). Individual variability in DAF effects on speech fluency and rate. *6th International Fluency Association World Congress on Fluency Disorders*.

White, L., Loucks, T., Gooler, D., & Chambers, R. (2013). Sensory gating in adults who stutter. *American Speech-Language-Hearing Association Annual Convention.*