

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel in the order listed for Form Page 2.
Follow the sample format on preceding page for each person. **DO NOT EXCEED FOUR PAGES.**

NAME		POSITION TITLE	
Grantham, D. Wesley		Professor	
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Oberlin College, Oberlin, OH	B.A.	1967	Psychology
Indiana University, Bloomington, IN	Ph.D.	1975	Experimental Psych.

A. Positions and Honors**Positions and Employment**

1975-1978 Post-Doctoral Fellow, Auditory Research Laboratory, Northwestern University
 1978-1980 Assistant Professor, Psychology, Loyola University, Chicago
 1980-1987 Coordinator of Psychoacoustic Laboratories, Bill Wilkerson Center
 Adjunct Assistant Professor, Hearing Science, Vanderbilt University Medical Center (VUMC)
 1987-1997 Adjunct Associate Professor, Hearing Science, VUMC
 1987-1997 Director of Research, Bill Wilkerson Center
 1998- Professor, Hearing Science, Vanderbilt Bill Wilkerson Center for Otolaryngology and
 Communication Sciences, VUMC

Other Experience and Professional Memberships

1988- Member of Association for Research in Otolaryngology
 1978- Member of Acoustical Society of America (ASA)
 1991-1994 Member of ASA Psychological and Physiological Acoustics Technical Committee
 2001-2004 Member of ASA Psychological and Physiological Acoustics Technical Committee
 1997-2000 Associate Editor for JASA: Psychological and Physiological Acoustics
 1999- Associate Editor for ASA Online Publication (Acoustic Research Letters Online),
 Psychological Acoustics
 2002- Member of ASA Meetings Committee
 2003 Chair, ASA Spring Meeting, Nashville, TN
 1997- Ad-Hoc Reviewer for Journal of the Acoustical Society of America, Ear and Hearing, Journal of
 Speech, Language, and Hearing Research, Perception and Psychophysics, Journal of
 Experimental Psychology: Human Perception and Performance, Human Factors, Perception,
 National Science Foundation, Air Force Office of Scientific Research

Honors

1963-1967 Regional Scholar, Oberlin College
 1967 Phi Beta Kappa
 1973-1974 Departmental Fellow of the Year, Indiana University
 1988 Research Award, Tennessee Association of Audiologists and Speech-Language Pathologists
 1996 Fellow, Acoustical Society of America
 1997 Nominated, Vanderbilt University Women's Center Annual Mentoring Award

B. Selected Peer-Reviewed Publications

- Grantham, D.W. & Wightman, F.L. (1978). Detectability of Varying Interaural Temporal Differences. *Journal of the Acoustical Society of America*, 63, 511-523.
- Grantham, D.W. & Wightman, F.L. (1979). Detectability of a Pulsed Tone in the Presence of a Masker with Time-Varying Interaural Correlation. *Journal of the Acoustical Society of America*, 65, 1509-1517.
- Grantham, D.W. & Yost, W.A. (1982). Measures of Intensity Discrimination. *Journal of the Acoustical Society of America*, 72, 406-410.
- Grantham, D.W. (1982). Detectability of Time-Varying Interaural Correlation in Narrowband Noise Stimuli. *Journal of the Acoustical Society of America*, 72, 1178-1184.
- Grantham, D.W. (1984). Interaural Intensity Discrimination: Insensitivity at 1000 Hz. *Journal of the Acoustical Society of America*, 75, 1191-1194.
- Grantham, D.W. (1984). Discrimination of Dynamic Interaural Intensity Differences. *Journal of the Acoustical Society of America*, 76, 71-76.
- Grantham, D.W. (1986). Detection and Discrimination of Simulated Motion of Auditory Targets in the Horizontal Plane. *Journal of the Acoustical Society of America*, 79, 1939-1949.
- Grantham, D.W. & Luethke, L.E. (1988). Detectability of Tonal Signals with Changing Interaural Phase Differences in Noise. *Journal of the Acoustical Society of America*, 83, 1117-1123.
- Grantham, D.W. (1988). Motion Aftereffects with Horizontally Moving Sound Sources in the Free Field. *Perception & Psychophysics*, 45, 129-136.
- Grantham, D. W., and Bacon, S. P. (1991). "Binaural modulation masking," *Journal of the Acoustical Society of America* 89, 1340-1349.
- Chandler, D.W. & Grantham, D.W. (1992). Minimum audible movement angle in the horizontal plane as a function of stimulus frequency and bandwidth, source azimuth, and velocity. *Journal of the Acoustical Society of America*, 91, 1624-1636.
- Grantham, D.W. (1992). Adaptation to auditory motion in the horizontal plane: Effect of prior exposure to motion on motion detectability. *Perception & Psychophysics*, 52, 144-150.
- Grantham, D. W. (1996). Left-right asymmetry in the buildup of echo suppression in normal-hearing adults. 1118-1123.
- Grantham, D. W. (1997). Auditory motion perception: Snapshots re-visited. In T.R. Anderson and R.H. Gilkey (Eds.), *Binaural and Spatial Hearing in Real and Virtual Environments* (Lawrence Erlbaum, Mahwah, NJ), pp. 295-313.
- Yang, X. & Grantham, D.W. (1997). Echo suppression and discrimination suppression aspects of the precedence effect. *Perception & Psychophysics*, 57, 1108-1117.
- Grantham, D. W. (1998). Auditory motion aftereffects in the horizontal plane: The effects of spectral region, spatial sector, and spatial richness. *Acustica/Acta Acustica*, 84, 337-347.
- Xiao, X. & Grantham, D.W. (1997). The effect of a free-field auditory target's motion on its detectability in the horizontal plane. *Journal of the Acoustical Society of America* 102, 1907-1910.
- Vause, N.L. & Grantham, D.W. (1999). Effects of earplugs and protective headgear on auditory localization ability in the horizontal plane. *H. Factors*, 41, 282-294.
- Grantham, D. W., Hornsby, B. W. Y., and Erpenbeck, E. A. (2003). "Auditory spatial resolution in horizontal, vertical, and diagonal planes," *J. Acoust. Soc. Am.* 114, 1009-1022.
- Chandler, D. W., Grantham, D. W., and Leek, M. R. (In press). "Effects of uncertainty on auditory spatial resolution in the horizontal plane," *Acustica/Acta Acustica*.
- Rothpletz, A. M., Tharpe, A. M., and Grantham, D. W. (2004). "The effect of asymmetrical signal degradation on binaural speech recognition in children and adults," *JSLHR*, 47, 269-280.
- Grantham, D. W., Ashmead, D. H., and Ricketts, T. A. (2005). "Sound localization in the frontal horizontal plane by post-lingually deafened adults fitted with bilateral cochlear implants," in *Auditory Signal Processing: Physiology, Psychology, and Models*, edited by D. Pressnitzer, A. de Cheveigné, S. McAdams, and L. Collet (Spring-Verlag, New York), pp. 300-307.
- Penn, T. O., Grantham, D. W., and Gravel, J. S. (2004). "Simulated conductive hearing loss in children," *Journal of the Academy of Audiology* 15, 300-310.

C. Research Support**Ongoing Research Support**

5 R01 DC 00185-16

2/1/98-1/31/05

NIH/NICDC

Auditory Motion Perception

The major goals of this project is to contribute to our understanding of how auditory spatial processing operates under dynamic conditions, both in anechoic and echoic spaces.

5 R24 EY 12894-02 (Richard Long, P.I.)

7/1/00-5/31/05

Daniel H. Ashmead, PI (Vanderbilt Portion)

NIH/NEI

Blind Pedestrians' Access to Complex Intersections (subcontract with Western Michigan Univ.)

The major goals of this project are: to use the strengths of a multidisciplinary team to understand the perceptual and cognitive requirements of negotiating complex intersections without vision and with low vision; to design and test engineering and training solutions to problems of information access that are currently known and that are identified in the course of this partnership; and to produce materials about the problems and solutions that are useful to transportation engineers, individuals and visual impairments, and rehabilitation personnel. The Vanderbilt team will work to develop more useful pedestrian signals and will conduct basic acoustics research about the perception of moving sound sources as this relates to street crossing. In addition, they will develop a two-speaker auditory motion display as a research and training tool.

Med El Corp. (D. Wesley Grantham, P.I.)

01/01/03-12/31/04

N/A

Localization, speech recognition and distance perception in listeners with monaural and bilateral cochlear implant fittings

The major purpose of this two-year study is to determine the localization, speech recognition and distance perception in listeners with monaural and bilateral cochlear implant fittings. This study will provide further data comparing outcomes for monaural versus bilateral cochlear implant fittings. This study is currently in the first year of data collection.