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**BIOGRAPHICAL SKETCH**

Provide the following information for the Senior/key personnel and other significant contributors. Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

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NAME Bess, Fred H.	POSITION TITLE Professor		
eRA COMMONS USER NAME (credential, e.g., agency login)			
EDUCATION/TRAINING ( <i>Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.</i> )			
INSTITUTION AND LOCATION	DEGREE (if applicable)	MM/YY	FIELD OF STUDY
Carthage College, Kenosha, WI	B.A.	1962	Speech
Vanderbilt University, Nashville, TN	M.S.	1964	Audiology
University of Michigan, Ann Arbor, MI	Ph.D.	1970	Audiology

**A. Personal Statement****B. Positions and Honors****Positions and Employment**

1969-1976 Director of Audiology, Assistant Professor, Associate Professor, and Professor of Communication Disorders, Central Michigan University

1976-1978 Professor and Director of Audiology, Vanderbilt University School of Medicine

1978-2009 Professor and Chair, Department of Hearing & Speech Sciences, Vanderbilt University School of Medicine

1978-2009 Director (1978-1989), CEO (1989-1997), Vanderbilt Bill Wilkerson Center

1997-2009 Associate Director, Vanderbilt Bill Wilkerson Center for Otolaryngology and Communication Sciences

1987-2004- Professor, Department of Otolaryngology, Vanderbilt University School of Medicine

Director, National Center for Childhood Deafness and Family Communications, Vanderbilt Bill Wilkerson Center for Otolaryngology and Communication Sciences, Vanderbilt University School of Medicine

**Other Experience and Professional Membership**

1964- Member, American Speech-Language Hearing Association

1978-1979 Editorial Board, the American Journal of Otology

1975-1996 Chairperson, International Symposium on Childhood Deafness (1976; 1986; 1996)

1976- Reviewer, Ear and Hearing, Journal of Speech and Hearing Disorders, Journal of Speech and Hearing Research

1986 Guest editor, *Ear and Hearing*

1988 Charter member, American Academy of Audiology

1990- President, American Academy of Audiology

1996- Founder and President, Hearing Solutions International

2000 Member, the Canadian Language and Literacy Research Expert Panel

1990-1997 Chair, American Academy of Audiology Foundation

2011- Associate Editor, American Journal of Audiology

## Honors

1976	Fellow, American Speech-Language-Hearing Association
1984	Distinguished Alumnus Award, Carthage College
1985	DiCarlo Award for Outstanding Clinical Achievement, State of Tennessee
1986	Harris M. Jonas Award in Audiology, New York League for the Hard of Hearing
1992	Frank R. Kleffner Lifetime Career Award, American Speech and Hearing Foundation
1999	Editor's Award, Outstanding Research Article-- <i>Ear and Hearing</i> , 1998.
1999	Honors, American Speech-Language-Hearing Association
2000	Frederick S. Berg Educational Audiology Award, Educational Audiology Association
2002	Honors, Tennessee Association of Audiologists and Speech-Language Pathologists
2003	Jerger Career Award for Research in Audiology, American Academy of Audiology
2005	Fred H. Bess Endowed Chair (Audiology)), Department of Hearing & Speech Sciences, Vanderbilt University School of Medicine
2009	Lifetime Achievement Award, Tennessee Association of Audiologists and Speech-Language Pathologists
2010	Honorary Doctor of Science Degree, Salus University
2011	Honorary Doctor of Audiology Degree, Central Michigan University
2013	Judith S. Gravel Distinguished Alumnus Award, Department of Hearing & Speech Sciences, Vanderbilt University School of Medicine

## **C. Selected Peer-reviewed Publications**

1. Bess, F.H., Dodd, J.D., and Parker, R.A. "Children With Minimal Sensorineural Hearing Loss: Prevalence, Educational Performance and Functional Status", *Ear and Hearing*, 19:339-354, 1998
2. Tharpe, A.M., Fino-Szumski, M.S., and Bess, F.H. "Hearing aid fitting practices for children with multiple impairments", *American Journal of Audiology*, 10(1): 32-40, 2001.
3. Tharpe, A.M., Bess, F.H., Sladen, D.P., Schissel, H., Couch, S., & Schery, T." Auditory Characteristics of Children with Autism". *Ear and Hearing*, 27, 430-441, 2006.
4. Porter, H.L., Sladen, D.P., Rothpletz, A.M., Ampah, S.B., & Bess, F.H. "Developmental Outcomes in Early School-Aged Children with Minimal Hearing Loss". *American Journal of Audiology*, December 2013, 22, 263-270. doi:10.1044/1059-0889(2013/13-0013)
5. Hornsby, W.Y., Werfel, K., Camarata, S. & Bess, F.H. "Subjective Fatigue in Children with Hearing Loss: Some Preliminary Findings", *American Journal of Audiology*, 23(1), 129-134, 2014. doi:10.1044/1059-0889(2013/13-0013)
6. Bess, F.H. & Hornsby, B.Y. "Commentary: Listening Can Be Exhausting--Fatigue in Children and Adults with Hearing Loss", *Ear & Hearing*, 35(6), 592-599, 2014. doi: 10.1097/AUD.0000000000000099. [Epub ahead of print]
7. Dodd-Murphy, J.D., Murphy, W., & Bess, F.H. "Accuracy of School Screening in the Identification of Minimal Sensorineural Hearing Loss". *American Journal of Audiology*, 2014, 23: 365-373. doi: 10.1044/2014\_AJA-14-0014
8. Bess, F.H., Gustafson, J., & Hornsby, B.Y.W. "How Hard Can It Be To Listen? Fatigue in School-Age Children with Hearing Loss", *Journal of Educational Audiology*, 20, 2014

### **Additional publications of importance to the field**

9. Bess, F.H. "Impedance Screening for Children: A Need for More Research". *Annals of Otology, Rhinology, and Laryngology*, Supplement 68, 89, and 3: 228-23, 1980
10. Bess, F.H. & Tharpe, A.M., "Unilateral Hearing Impairment in Children", *Pediatrics*, 74: 206-216, 1984
11. Bess, F.H., Lichtenstein, M.J., Logan, S.A., Burger, M.C. & Nelson, E., "Hearing Impairment as a Determinant of Function in the Elderly", *Journal of the American Geriatric Society*, 37: 123-128, 1989
12. Bess, F.H. and Paradise, J.L. "Universal Screening for Infant Hearing Impairment: Not Simple, Not Risk-Free, Not Necessarily Beneficial, and Not Presently Justified", *Pediatrics*, 93(2): 330-334, 1994
13. Bess, F.H." Evidence-based Audiology". *American Journal of Audiology*, 4: 5, 1995

## **D. Research Support**

### **Recent/Ongoing Research Support**

R324A110266 (IES)

Bess (PI)

07/01/2011--06/30/2015

#### **Listening Effort and Fatigue in School Age Children with Hearing Loss**

The goal of this project is to examine whether school-age children with hearing loss (CHL) expend greater listening effort and subsequently experience more fatigue under noisy conditions than a group of children with no hearing loss (CNHL). We also plan to assess the impact of hearing related fatigue on skills needed for learning in school such as phonological awareness, phonological memory, and rapid naming. The project entails four experiments that employ multiple measures and diverse methodologies. In Experiment 1, biochemical markers (salivary cortisol levels) will be used to measure fatigue on multiple occasions throughout the day in a group of CHL and a group of CNHL. Experiments 2 and 3 will examine behavioral and psycho-physical indices to determine the extent to which the same children from Experiment 1 expend effort under quiet and noise conditions (Experiment 2) and show subsequent fatigue (Experiment 3). In Experiment 2, a dual-task paradigm will be used—the primary task will involve speech recognition testing in noise, whereas the secondary task will involve pushing a button in response to a probe light. In Experiment 3 event-related potentials (ERPs) will be collected on each child prior to (pretest) and after (posttest) completion of the difficult speech recognition task in Experiment 2. Finally, in Experiment 4, we plan to measure fatigue using a standardized questionnaire and to assess the impact of increased listening effort, stress and subsequent hearing-related fatigue (same children who participated in Experiments 1-3), on several basic skills essential for student learning. Student learning measures will be taken before the school day begins and at the end of the school day.

R324A150029 (IES)

Bess (PI)

07/01/2015--06/30/2019

#### **Measurement of Listening Fatigue in School-Age Children with Disabilities**

The purpose of this study is to construct and validate a child-centered measure of listening fatigue for children with hearing loss (CHL) and other communication-based disabilities (CHLCD). Recent research supports the notion that CHL and children with specific language impairment (CSLI) are at increased risk for fatigue. Increased listening effort and fatigue can jeopardize the ability to learn in school. Development of a valid, sensitive measure of listening fatigue is critical for improving our understanding of the nature of fatigue and is a prerequisite for the development and assessment of effective intervention strategies for school-age children with communication disorders. The sample will consist of three groups of children—CHL (moderate to profound losses), CSLI, and children with normal hearing (CNH). Parents of these groups will also be represented. In Phase 1, we will employ focus groups and cognitive interviews to gather rich qualitative data on fatigue outcomes from CHL, CSLI and CNH. Using the focus group and cognitive interview data, we will generate questionnaire items and construct a scale that measures children's experiences of fatigue related to hearing loss and language disorders. In Phase 2, we will pretest the fatigue scale in CHL, CSLI and CNH. After psychometric analyses the scale will be revised to reduce its length and to improve the quality of retained items. In Phase 3, we will field test the fatigue scale and psychometric analyses will again be conducted--eight psychometric criteria will be evaluated: (a) respondent burden; (b) item variability; (c) missing data; (d) scaling assumptions; (e) scaling success rates; (f) score reliability; (g) features of score distributions; and (h) clinical validity. The completed scale will be placed on the Internet and distributed free of charge to teachers and clinicians.