#### **BIOGRAPHICAL SKETCH**

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.

Follow this format for each person. **DO NOT EXCEED FOUR PAGES.** 

| NAME   | POSITION TITL             | POSITION TITLE  |                |  |
|--|---------------------------|---|----------------|--|
| Hood, Linda J.   | Professor, D              | Professor, Department of Hearing and Speech Sciences, |                |  |
| eRA COMMONS USER NAME  | Vanderbilt B              | Vanderbilt Bill Wilkerson Center                      |                |  |
|  | Vanderbilt U              | Vanderbilt University Medical Center                  |                |  |
| EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.) |                           |   |                |  |
| INSTITUTION AND LOCATION   | DEGREE<br>(if applicable) | YEAR(s)   | FIELD OF STUDY |  |

| INSTITUTION AND LOCATION                         | DEGREE<br>(if applicable) | YEAR(s)   | FIELD OF STUDY      |
|--|---------------------------|-----------|---------------------|
| Bowling Green State University, Bowling Green OH | B.S.                      | 1969      | Speech and Hearing  |
| Kent State University, Kent OH                   | M.A.                      | 1974      | Audiology           |
| University of Maryland, College Park MD          | Ph.D.                     | 1983      | Hearing Science     |
| Kresge Hearing Research Laboratory, LSUMC, New   | Post-Doc                  | 1984-1987 | Auditory Physiology |
| Orleans, LA                                      |                           |           |                     |

## A. Positions and Honors: Positions and Employment

| 1969-1972    | Speech and Hearing Therapist, Willoughby-Eastlake Schools, Ohio                                       |
|--------------|---|
| 1972-1973    | Audiologist, Society for Crippled Children and Adults, Mentor, Ohio                                   |
| 1974-1975    | Audiologist, Central Florida Speech and Hearing Center, Lakeland, Florida                             |
| 1975-1977    | Coordinator of Clinical Audiology, Lansdowne Mental Health Center, Ashland, Kentucky                  |
| 1977-1982    | Research Assistant, Asst Instructor, Univ of Maryland; Audiologist, VA Medical Center, Washington, DC |
| 1982-1983    | Research Associate, Kresge Hearing Research Laboratory, LSU Medical Center, New Orleans               |
| 1984-1987    | NIH Post-Doctoral Fellow, Kresge Hearing Research Lab, LSU Medical Center, New Orleans                |
| 1987-1999    | Associate Professor, Kresge Hearing Research Lab, Otorhinolaryngology, LSUMC, New Orleans             |
| 1987-2005    | Director/Scientific Director, Cochlear Implant Program, LSUHSC/Memorial Hospital; Consultant, VA      |
|              | Medical Center, New Orleans   |
| 1999-2005    | Professor, Kresge Hearing Research Laboratory, Otorhinolaryngology; Adjunct Professor, Depts. of      |
|              | Communication Disorders, Genetics, Neuroscience, LSUHSC, New Orleans                                  |
| 2005-Present | Professor, Dept of Hearing and Speech Sciences, and Associate Director for Research, National Center  |
|              | for Childhood Deafness and Family Communication, Vanderbilt University, Nashville                     |

### Other Experience and Professional Memberships

| 1983-present | Member, Association for Research in Otolaryngology (ARO), Long-Range Planning Committee (2003-       |
|--------------|--|
|              | present), Co-Chair, ARO Fall Research Forum (2003-2005)  |
| 1988-present | American Academy of Audiology: Member (1988-present), Advisory Board and Board of                    |
|              | Representatives (1988-1991, Convention Chair (1990), Executive Committee and Board of Directors      |
|              | (1991-1995), President (1992-1993), Chair - Research Committee (1994-1998), Council of Past          |
|              | Presidents (1994-present), International Committee (2004-present)                                    |
| 1995-present | Subcommittee on Standards for Otoacoustic Emissions, American National Standards Institute           |
| 1997         | American Sp-Lang-Hearing Association Blue Ribbon Panel on Future Directions in Audiology             |
| 1997         | NIH NIDCD Working Group on Early Identification of Hearing Impairment                                |
| 1997-present | Consultant, Blue Mountains Hearing Study, Univ of Sydney and Macquarie University, Sydney, Australia |
| 1998-2002    | American Academy of Audiology Research Committee, Chair 1998-2000                                    |
| 1998         | NIH NIDCD Working Group on Developing and Implementing Genetic Diagnostic Tests for Hereditary       |
|              | Hearing Impairment and Other Communication Disorders, Co-Chair, Writing Group                        |
| 1998-present | Member, American Academy of Audiology Foundation Board   |
| 1999-2005    | NIDCD Auditory Study Section (IFCN-6) – ad hoc member (1999-2001); regular member (2001-2005)        |
| 2000         | NIH – BSCS writing and development of science units for middle school students, Colorado             |
| 2000-2005    | Member, US Food and Drug Administration Ear, Nose, and Throat Devices Panel.                         |
| 2001-present | AuD Program Advisory Board, Rush University, Chicago, Illinois.                                      |

#### **Honors and Awards (selected):**

Phi Kappa Phi Honorary, University of Maryland (1978); American Speech-Language-Hearing Foundation and Psi Iota Xi Research Award (1984); NIH-BRSG Grant, LSUMC (1988); Scientific Exhibit Merit Award, American Speech-Language - Hearing Association (1989); Fellow, American Speech-Language - Hearing Association (1999); Distinguished Alumni Award, Mentor High School (1999); Research Achievement Award, American Academy of Audiology (2002).

#### B. Selected peer-reviewed publications (in chronological order).

- 1. Hood LJ, Millin. 1973. Adaptation and fatigue: Some proposed operational definitions. Ohio J Sp Hear 8:23-27.
- 2. Penner MJ, Brauth S, Hood LJ. 1981. The temporal course of the masking of tinnitus as a basis for inferring its origin. *J. Sp. Hear. Res.* 24:257-261.
- 3. Causey GD, Hood LJ, Hermanson CL, Bowling LS. 1982. The clinical and acoustic parameters of hearing aid effectiveness. *Bull. Prosth. Res.* 19:64-65.
- 4. Causey GD, Hermanson CL, Hood LJ, Bowling LS. 1983. A comparative evaluation of the Maryland NU 6 Auditory Test. *J. Sp. Hear. Dis.* 48:62-69.
- 5. Causey GD, Hood LJ, Hermanson CL, Bowling LS. 1984. The Maryland CNC Test: Normative studies. *Audiol.* 23:552-568.
- 6. Hood LJ, Svirsky MA, Cullen JK Jr. 1987. Discrimination of complex speech-related signals for an individual using a multi-channel electronic hearing prosthesis as measured by adaptive procedures. *Ann. ORL*. 96, 38-40.
- 7. Berlin CI, Jenison VW, Hood LJ, Lyons GD Jr. 1987. Patient selection for the multichannel electronic hearing prosthesis. *Ann. ORL* 96, 104-106.
- 8. Hood LJ, Webster DB. 1988. Reversible conductive hearing loss in mice. Ann. ORL .97:281-285.
- 9. Hood LJ. 1990. Update on frequency specificity of AEP measurements. J. Am. Acad. Audiol. 1:125-129.
- 10. Hood LJ, Martin DA, Berlin CI. 1990. Auditory evoked potentials differ at 50 milliseconds in right- and left-handed listeners. *Hear. Res.* 45:115-122.
- 11. Berlin CI, Hood LJ, Barlow EK, Morehouse CR, Smith EG. 1991. Derived guinea pig compound VIIIth nerve action potentials to continuous pure tones. *Hear. Res.*52:271-280.
- 12. Hood LJ, Berlin CI, Heffner RS, Morehouse CR, Smith EG, Barlow EK. 1991. Objective auditory threshold estimation using sine-wave derived responses. *Hear. Res.* 55:109-116.
- 13. Berlin CI, Hood LJ, Cecola RP, Jackson DF, Szabo P. 1993. Does Type I afferent neuron dysfunction reveal itself through lack of efferent suppression? *Hear. Res.* 65:40-50.
- 14. Berlin CI, Hood LJ, Wen H, Szabo P, Cecola RP, Rigby P, Jackson DF. 1993. Contralateral suppression of non-linear click-evoked otoacoustic emissions. *Hear. Res.* 71:1-11.
- 15. Hood LJ, Berlin CI, Allen P. 1994. Cortical deafness: A longitudinal study. J. Amer. Acad. Aud. 5:330-342.
- 16. Berlin CI, Hood LJ, Hurley A, Wen H. 1994. Contralateral suppression of otoacoustic emissions: An index of the function of the medial olivocochlear system. *Otol.-Head Neck Surg.* 100:3-21.
- 17. Berlin CI, Hood LJ, Hurley AE, Wen H, Kemp DT. 1995. Binaural noise suppresses linear click-evoked otoacoustic emissions more than ipsilateral or contralateral noise. *Hear. Res.* 87:96-103.
- 18. Starr A, Picton TW, Sininger Y, Hood LJ, Berlin Cl. 1996. Auditory neuropathy. *Brain*, 119:741-753.
- 19. Hood LJ, Berlin CI, Hurley A, Cecola RP, Bell B. 1996. Contralateral suppression of click-evoked otoacoustic emissions: Intensity effects. *Hear. Res.* 101:113-118.
- 20. Berlin CI, Bordelon J, St. John P, Wilensky D, Hurley A, Kluka E, Hood LJ. 1998. Reversing click polarity may uncover auditory neuropathy in infants. *Ear Hear*. 19:37-47.
- 21. Hood LJ. 1998. An overview of neural function and feedback control in human communication. J. Comm. Dis. 31:1-10.
- 22. Morell RJ, Kim HJ, Hood LJ, Goforth L, Friderici K, Fisher R, Van Camp G, Berlin CI, Oddux C, Ostrer H, Keats B, Friedman TB. 1998. Mutations in the connexin 26 gene (GJB2) among Ashkenazi Jews with nonsyndromic recessive deafness. *New Engl. J. Med.* 339:1500-1505.
- 23. Morlet T, Goforth L, Hood LJ, Ferber C, Duclaux R, Berlin CI. 1999. Development of human cochlear active mechanism asymmetry: Involvement of the medial olivocochlear system. *Hear. Res.* 134:153-162.
- Hood LJ. 1999. A review of objective methods of evaluating auditory neural pathways. *Laryng.* 109:1475-1478.
- 25. Griffith AJ, Chowdhry AA, Kurima K, Hood LJ, Keats B, Berlin CI, Morell RJ, Friedman TB. 2000 Autosomal recessive nonsyndromic neurosensory deafness at DFNB1 not associated with the compound-heterozygous GJB (Connexin 26) genotype M34T/167delT. *Am. J. Hum. Genet.* 67:745-749.
- 26. Berlin CI, Morlet T, Hood LJ. 2003. Auditory neuropathy/dys-synchrony: Its diagnosis and management. *Ped Clin NA* 50:331-340.
- 27. Hood LJ, Berlin CI, Bordelon J, Rose K. 2003. Patients with auditory neuropathy/dys-synchrony lack efferent suppression of transient evoked otoacoustic emissions. *J. Amer. Acad. Audiol.* 14:302-313.
- 28. Brashears SM, Morlet TG, Berlin CI, Hood LJ. 2003. Olivocochlear efferent suppression in classical musicians. *J. Amer. Acad. Audiol.* 14:314-324.
- 29. Berlin CI, Hood LJ, Morlet T, Rose K, Brashears S. 2003. Auditory neuropathy/dys-synchrony: Diagnosis and management. *Mental Retardation Devel. Disabl.Res. Rev.*
- 30. Hood LJ. 2003. Genetics and craniofacial anomalies. MIT Encyclopedia of Communication Disorders.
- 31. Hood LJ, Wilensky D, Li L, Berlin Cl. 2004. The role of FM technology in the management of patients with auditory neuropathy/dys-synchrony. *Proc. Internat. Conf. FM Technol.*

- 32. Golding M, Carter N, Mitchell P, Hood LJ. 2004. Prevalence of central auditory processing (CAP) abnormality in an older Australian population: The Blue Mountains Hearing Study. *J. Amer. Acad. Audiol.* 15:633-642.
- 33. Berlin CI, Hood LJ, Morlet T, Wilensky D, St. John P, Montgomery E, Thibodeaux M. Absent or elevated middle ear muscle reflexes in the presence of normal otoacoustic emissions: A universal finding in 136 cases of auditory neuropathy/dys-synchrony. *Journal of the American Academy of Audiology, in press* 2005.
- 34. Cheng X, Li L, Morlet T, Ng SS, Berlin C, Hood L, Keats B. Connexin 26 and connexin 30 mutations among children in schools for the deaf. *Amer J Hum Genet*, 2005.
- 35. Varga R, Avenarius MR, Kelley PM, Keats BJ, Hood LJ, Berlin CI, Morlet TG, Brashears SM, Starr A, Cohn ES, Smith RJ, Kimberling WJ. OTOF mutations revealed by genetic analysis of hearing loss families including a potential temperature-sensitive auditory neuropathy allele. *J Med Genet.*, 2006 [Epub ahead of print].

# C. Research Support Current Research Support

NIH NIDCD SBIR Delgado (PI) Grant start: 2005

Innovative methods in auditory evoked potentials

L. Hood will oversee one of two sites for evaluation of new methods and algorithms developed by Intelligent Hearing Systems for applications of AEPs to pediatric auditory threshold estimation.

## **Completed Research Support**

R01 DC03679 Hood (PI) 05/01/99-04/30/04

NIH NIDCD NC extension 05/01/04-4/30/05

Auditory and Genetic Studies of Hereditary Hearing Loss

The goal of this grant is to characterize cochlear and neural function in carriers of genes related to syndromic and non-syndromic recessive hearing loss.

Role: Principal Investigator

Oberkotter Foundation Hood (PI) 04/01/01-04/30/05

**Auditory Neuropathy** 

The goal of this grant is to understand characteristics, related factors and underlying mechanisms in patients with auditory neuropathy/dys-synchrony.

Role: Principal Investigator

HEF 2000-05 Keats (PI) 6/1/00 – 5/31/05

Louisiana Millennium Trust Health Excellence Fund

Genetic studies in the Acadian Population

This is a Center grant that provides funding for five research projects on genetic disorders and genomic variation in the Acadian population of south Louisiana, and includes a clinical core and a genomics core.

Role: Co-Investigator

D04RE00136-02 - HRSA Keats (PI) 9/1/99 - 8/31/05

Center for Acadiana Genetics and Hereditary Health Care

The goal of this project is to provide education and service in genetics to the Acadian population.

Role: Co-Investigator

P01-000379 - NIDCD Berlin (PI) 1987-1997

**Auditory Mechanisms** 

Multidisciplinary projects addressing peripheral and central auditory mechanisms.

Role: Co-Investigator

T32-00007 - NIDCD Berlin (PI) 1987-1997

**Auditory Physiology** 

Training grant addressing physiologic, anatomic and pharmacologic aspects of hearing research.

Role: Co-Investigator

American Hearing Research Foundation Hood (PI) 1996

Efferent suppression of otoacoustic emissions: Aging effects

Principal Investigator/Program Director (Last, First, Middle):

Role: Principal Investigator

American Hearing Research Foundation Hood (PI) 1998 Binaural interaction at cochlear and brainstem levels: Changes with aging

Role: Principal Investigator

Deafness Research Foundation Hood (PI) 1998-2000

The development of efferent function in human infants

Role: Principal Investigator

National Organization for Hearing Research Hood (PI) 1998

Efferent effects of peripheral auditory function

Role: Principal Investigator

State of Louisiana, Department of Education Hood (PI) 1999

Identification of children with Usher syndrome in Louisiana

Role: Principal Investigator

P50 DC00223 - NIDCD Ruben (PI) 7/1/97 - 6/30/02

The Impact of Early Auditory Experience on Later Auditory Function

Role: Consultant

R01 HD36080 - NICHD Dunn (PI) 6/1/97 - 5/31/02

Electrophysiologic and Behavioral Indices of Auditory Processing in Autism

Role: Consultant