

BIOGRAPHICAL SKETCH

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NAME: Jacobson, Gary P.

eRA COMMONS USER NAME (credential, e.g., agency login):

POSITION TITLE: Professor, Dept. of Hearing & Speech Sciences, Vanderbilt University Medical Center

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	Completion Date MM/YYYY	FIELD OF STUDY
California State University-Fullerton	B.A.	1974	Speech Communication
University of Wisconsin – Stevens Point	M.S.	1975	Communicative Disorders
Kent State University	Ph.D.	1978	Audiology

A. Personal Statement

I believe I have the training and experience to design investigations, carry out the studies, write them up and publish them in competitive peer-reviewed journals. I have over 35 years of experience doing so and that is evidenced by my 100+ peer-reviewed publications. I am most comfortable conducting practical, translational research. My areas of interest and expertise include the design and development of: self-report metrics of dizziness, hearing, tinnitus, headache and voice disability/handicap, the effects of disease on these metrics, auditory and vestibular electroneurodiagnostics, brain mapping, magnetoencephalography, intraoperative neurophysiological monitoring and tinnitus.

B. Positions and Honors

Positions and Employment

- 1978-1979 Staff Audiologist, Audiology and Speech Pathology Service, VAMC – Cleveland, OH
- 1979-1987 Chief, Audiology and Speech Pathology Section, Neurology Service, VAMC Cincinnati, OH
- 1988-2003 Director, Division of Audiology, Department of Otolaryngology, Henry Ford Health System, Detroit, MI
- 2003- Professor, Department of Hearing and Speech Sciences, Director, Division of Audiology, Vanderbilt University Medical Center, Nashville, TN
- 1980-1987 Adjunct Assistant Professor, Department of Neurology, University of Cincinnati Medical Center
- 1983-1987 Adjunct Assistant Professor of Audiology, Department of Communication Disorders, University of Cincinnati
- 2009- Adjunct Faculty, Rush University, Chicago, IL
- 2014- Adjunct Faculty, Kent State University/Akron University Consortium

Other Experience and Professional Memberships

1974-	Member of the American Speech-Language and Hearing Association
1988-	Member of the American Academy of Audiology
2005-	Member of the American Auditory Society
2014-	Member of the American Balance Society
1998-2001	Board of Directors, American Tinnitus Association
1997-2005	Member, Scientific Advisory Committee, American Tinnitus Association
2007-2010	Board of Directors, American Academy of Audiology
2000-2003	Editor, American Journal of Audiology
2012-	Editor-in-Chief, Journal of the American Academy of Audiology

Honors

1987	Distinguished Alumnus Award, University of Wisconsin – Stevens Point
1997	Fellow- American Speech Language Hearing Association
1999	Editors Award, American Academy of Audiology
2002	Jerger Career Award for Research in Audiology, American Academy of Audiology
2010	Honors of the Association, American Speech-Language Hearing Association
2015	Distinguished Achievement Award, American Academy of Audiology
2017	Lifetime Achievement Award, American Balance Society

C. Contribution to Science

1. Development of clinical outcome measures

My colleagues and I at Henry Ford Hospital (Detroit, MI) contributed a number of clinical outcome measures during the early 1990s when few existed. These measures included the Dizziness Handicap Inventory, Tinnitus Handicap Inventory, Headache Disability Inventory, and Voice Handicap Index. According to Google Scholar the DHI has over 1000 unique references in the scientific literature. These scales have made it possible to assess self-reported disability handicap and treatment outcomes for dizziness, hearing impairment, tinnitus, headache and voice disorders. Our work also has included assessments of levels of agreement between patient self-reports compared with care-giver and spouse predictions of patient self-reported handicap. We currently are working on the development of a device that will help primary care and general otolaryngologists reduce the number of possible diagnoses for patient-reported dizziness and vertigo.

- a. Jacobson, G.P. and Newman, C.W. The development of the Dizziness Handicap Inventory. Archives of Otolaryngology-Head and Neck Surgery, 116: 424-427 (1990). PMID: 2317323
- b. Jacobson, G.P., Ramadan, N., Aggarwal, S., Newman, C.W. The Henry Ford Hospital Headache Disability Inventory (HDI). Neurology, 44: 837-842, (1994). PMID: 8190284
- c. Newman, C.W., Jacobson, G.P., Spitzer, J. Development of the Tinnitus Handicap Inventory. Archives of Otolaryngology-Head and Neck Surgery, 122: 143-148, (1996). PMID: 8630207
- d. Jacobson, G.P., Piker, E.G., Watford, K.E., Gruenwald, J., Wanna, G., Rivas, A. Concordance and discordance in patient and provider perceptions of dizziness. May 14. pii: S0196-0709(14)00111-2. doi: 10.1016/j.amjoto.2014.05.003 American Journal of Otolaryngology. 2014 Nov-Dec:35(6):779-83. PMID: 25123779

2. Clinical auditory electrodiagnostics

Our laboratory has an active interest in both auditory and vestibular electrodiagnostics. Our auditory interest includes the effect of disease on scalp recorded auditory evoked potentials.

- a. Jacobson, G.P., Calder, J., Newman, C.W., Wharton, J., Ahmad, B.K. Electrophysiological indices of selective auditory attention in subjects with and without tinnitus. Hearing Research, 97: 66-74, (1996). PMID: 8844187

- b. Jacobson, G.P., Ahmad, B.K., Moran, J., Newman, C.W., Tepley, N. and Wharton, J. Auditory evoked cortical magnetic field (M100/M200) measurements in tinnitus and normal groups. Hearing Research, 56: 44-52 (1991). PMID: 1769924
- c. Jacobson, G.P., Privitera, M., Neils, J.M., Yeh, H-S. The effects of anterior temporal lobectomy (ATL) on the middle-latency auditory evoked potential (MLAEP). Electroencephalography and Clinical Neurophysiology, 75: 230-241 (1990). PMID: 1689646
- d. Jacobson, G.P., Newman, C.W., Privitera, M. and Grayson, A.S. Differences in superficial and deep source contributions to middle latency auditory evoked potential Pa component in normal subjects and patients with neurological disease. Journal of the American Academy of Audiology, 2: 7-17 (1991). PMID: 1768871

3. Clinical vestibular electrodiagnostics

Our interest in vestibular electrodiagnostics has included the detailed investigation of optimal stimulating and recording parameters for the recording of both cervical and ocular vestibular evoked myogenic potentials. We also have an interest in coalescing information to detect unique diagnostic patterns in Meniere's disease, vestibular neuritis, superior semicircular canal dehiscence, and migraine associated vertigo.

- a. Jacobson GP, Calder JA, Shepard VA, Rupp KA, Newman CW. Reappraisal of the monothermal warm caloric screening test. Annals of Otology Rhinology and Laryngology 104: 942-945, (1995). PMID: 7492065
- b. Jacobson G.P., McCaslin, D.L. Agreement between functional and electrophysiologic measures in patients with unilateral peripheral vestibular system impairment. Journal of the American Academy of Audiology, 14: 231-238, 2003. PMID: 12956306
- c. Jacobson, G.P., McCaslin, D.L., Grantham, S.L., Piker, E.G. Significant vestibular system impairment is common in a cohort of elderly patients referred for assessment of falls risk. Journal of the American Academy of Audiology, 19: 799-807, 2008. PMID: 19358459
- d. Jacobson GP, McCaslin DL, Piker EG, Gruenwald J, Grantham SL, Tegel L. Patterns of abnormality in cVEMP, oVEMP and caloric tests may provide topological information about vestibular impairment. Journal of the American Academy of Audiology 22: 601-611, 2011. Doi: 10.3766/jaaa.22.9.5 PMID: 22192605

4. Basic understanding of central auditory and vestibular system function

These investigations provided us with opportunities to use electro-oculography, brain mapping technologies (multi-channel auditory evoked potentials) and magnetoencephalography (MEG) to understand better the basic function of the auditory and vestibular brain pathways.

- a. Jacobson, G.P., Moran, J., Ahmad, B.K., Newman, C.W., Tepley, N. and Wharton, J. Occurrence of auditory evoked field (AEF) N1M and P2M components in a sample of normal subjects. Ear and Hearing, 13: 387-395, (1992). PMID: 1487099
- b. Jacobson, G.P., Tepley, N., Peterson, E.L., Newman, C.W., Ahmad, B.K., Kanna, I., Moran, J., and Wharton, J. Reexamination of gender differences in the source location of N1m. Journal of the American Academy of Audiology, 4: 69-75 (1993). PMID:8471787
- c. Jacobson, G.P., McCaslin D.M., Smith, B., Elisevich, K., Mishler, P. Test-retest stability and short-term habituation of the N1 and gamma band response. Journal of the American Academy of Audiology 10: 211-218, (1999). PMID: 10941712
- d. Jacobson, G.P., Piker, E.G., Do, C, McCaslin D.L.,Hood, L. Suppression of the vestibule-ocular reflex using visual and nonvisual stimuli. American Journal of Audiology, 21: 226-231, 2012. doi: 10.1044/1059-0889(2012/12-0021). Epub 2012 Nov 28. PMID: 23221302

D. Research Support

Ongoing Research Support

None presently

Completed Research Support

Agency: Interacoustics VO425 McCaslin (PI)
VNG: Normative Data for Ocular Motility Testing and Effects of Age.
Role: Co-investigator

Agency: Interacoustics VO425 Jacobson PI)
Evoked Potential System: A New Analysis Technique for Vestibular Evoked Myogenic Potentials.
Role: Principal Investigator

VICTR Resource #VR1946 Piker (PI) 2011
Frequency Tuning of the VEMP, Vanderbilt Institute for Clinical and Translational Research
Role: Co-investigator