

## VITA

KENNETH J. GERHARDT, Ph.D.

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### PERSONAL DATA

Office Address & Telephone: University of Florida  
Speech, Language and Hearing Sciences  
Dauer Hall 351  
Box 115174  
Gainesville, FL 32611  
352-273-3724 (office); 352-359-6648 (cell)  
E-mail: gerhardt@ufl.edu

Title: Professor Emeritus

### EDUCATION

Ohio State University, Columbus	Speech and Hearing Sciences	B.A.	1970
Ohio State University, Columbus	Audiology	M.A.	1973
Ohio State University, Columbus	Hearing Science	Ph.D.	1976

### ACADEMIC EXPERIENCE

1972-1973	Supervisor, Fairfield County Speech and Hearing Clinic, Ohio
1973-1974	Coordinator of Clinical Experiences in Audiology, Ohio State University
1973-1975	Graduate Teaching Associate, Ohio State University
1975-1976	Audiologist, Children's Hospital, Columbus, Ohio
1976-1978	Assistant Professor, Kent State University (Tenure-accruing)
1978-1981	Assistant Professor, Department of Speech, University of Florida
1979-2009	Joint Appointment, Department of Communicative Disorders, College of Health Professions, University of Florida
1979-2013	Fellow, Institute for Advanced Study of the Communication Processes
1981-1990	Associate Professor, Department of Communication Sciences and Disorders, (formerly Department of Speech), University of Florida
1985-1993	Chair, Department of Communication Sciences and Disorders, University of Florida
1985-1987	Graduate Coordinator
1990-2013	Professor, Department of Communication Sciences and Disorders, University of Florida
1994-2013	Joint Appointment, Department of Obstetrics and Gynecology, College of Medicine, University of Florida
1999-2004	Associate Dean, Graduate School
2004-2007	Interim Dean, Graduate School

2007-2009 Associate Dean, Graduate School  
2009-2013 Senior Associate Dean, Graduate School  
2013 Professor Emeritus (Retired August 31, 2013)  
2014-2015 Ombuds for Faculty (0.25 FTE)  
2014 Instructor - Online Undergraduate Program (0.25 FTE)

#### CERTIFICATION AND LICENSURE

1976-2010 Certificate of Clinical Competency in Audiology, issued by the American  
Speech-Language-Hearing Association  
1980-2012 Licensure, State of Florida

#### HONORS

Recipient - First Place in the ICSABER Society Graduate Research Competition and  
Symposium, The Ohio State University, 1976  
TIP Recipient - Teaching Improvement Program, 1995  
Fellow - American Speech-Language-Hearing Association, 1995  
Outstanding Clinician of the Year Award - Florida Speech-Language and Hearing  
Association, 1996  
Fellow - American Academy of Audiology, 1996  
Herb and Catherine Yardley Term Professorship in the College of Liberal Arts and  
Sciences, University of Florida, 1996  
PEP Recipient – Professorial Excellence Program, 1998  
Award for Innovative Excellence in Teaching, Learning and Technology, Eleventh International  
Conference on College Teaching and Learning, 2000  
Distinguished Professor - Selected by the Florida Blue Key, 2005-2006

#### EXTERNAL APPOINTMENTS

1987-1990 Member - Comprehensive System for Personnel Development Oversight  
Committee. Appointed by the Commissioner of Education  
1988 Reaffirmation Committee Member - Southern Association of Colleges and  
Schools  
1990 Site Visitor - American Speech-Language-Hearing Association, ESB  
Accreditation  
1990 Site Visitor - National Institutes of Health, NICHD, Program Project Review  
1990 Participant – National Institutes of Health, Consensus Development Conference  
on Noise and Hearing Loss  
1991 Scientific Review Committee, National Institutes of Health, NICHD  
1998 Participant – National Consensus Committee to develop standards for hazardous  
agents (noise) in the neonatal intensive care unit

## MEMBERSHIPS

Academy for Research in Otolaryngology  
Acoustical Society of America  
American Academy of Audiology  
American Auditory Society  
American Speech-Language and Hearing Association  
Florida Speech-Language and Hearing Association  
National Organization of Hearing Conservation

## PROFESSIONAL ACTIVITIES

1980-1981 Member - FLASHA, State Committee - Program Selection Committee  
1980-1981 Member - ASHA, National Committee - Audiological Services in the Public Schools  
1980-1983 Chair - FLASHA, State Committee - Governmental Education Committee, Region IV  
1982-1983 First Alternate - ASHA, Legislative Councilor  
1982-1983 Member - FLASHA, Audiology Program Committee  
1982-1983 Associate Editor, FLASHA Journal  
1984-1987 Audiology Standards Committee, FLASHA  
1986-1988 Member - ASHA, National Committee - Industrial Noise and Hearing Conservation  
1987-1990 Vice President - Florida Speech-Language-Hearing Association.  
1989-1990 Chair - Ad hoc Committee to re-write Florida law governing Speech-Language Pathology and Audiology  
1989-1991 Member - Graduate Council in Communication Sciences and Disorders  
1990-1992 FLASHA Presidential Advisory Committee  
1990-2001 Reviewer- American Journal of Obstetrics and Gynecology  
1991-2005 Reviewer- Journal of the Acoustical Society of America  
1992 FLASHA Nominating Committee  
1994 FLASHA Legislative Lobbying Committee  
1996 Program Scientific Reviewer - American Academy of Audiology  
1997-1998 Member - FLASHA Legislative Lobbying Committee  
1998 Co-program Organizer, National Organization of Hearing Conservation  
1999 Member- National Committee to develop standards for hazardous agents (noise) in the neonatal intensive care unit  
2000-2012 American Academy of Audiology Committee on Minority Recruitment  
2002 Participant, National Institutes of Health workshop to discuss the articulation of the Doctor of Audiology and Ph.D. in Audiology  
2004-present Participant at AAU Dean's Conferences  
2002-2006 Executive Board, Conference of Southern Graduate Schools

## CAMPUS ACTIVITIES

1978-1981 Chair, Salary Policy Committee, Department of Speech  
1979-1981 Chair - Curriculum Committee - Semester Conversion, Department of Speech  
1980 Member - Commencement Marshal, College of Liberal Arts and Sciences  
1980-1981 Chair - Search and Screen Committee, Audiology  
1980-1983 Member - Curriculum Committee, Department of Speech  
1981 Member - IASCP Shop Committee  
1981-1982 Member - Self-study Committee, Department of Speech  
1981-1982 Chair - Search and Screen Committee, Department of Speech  
1981-1985 Area Coordinator - Audiology, Department of Speech  
1982-1985 Member - Salary Policy Committee  
1983 Acting Chair - Department of Speech  
1985-1993 Chair, Department of Communication Sciences and Disorders  
1985&1986 RDA Reviewer for Division of Sponsored Research  
1989-1990 Member - Search Committee, Department of Psychology  
1990-1991 Member - Search Committee, Associate Dean College of Liberal Arts and Sciences  
  
1992-1995 Member - University Senate  
1993-1994 Chair - Department Search and Screen Committee  
1993-1994 Member - Department TIP Committee  
1993-1995 Member - Department Salary Policy Committee  
1993-1998 Member - University of Florida Institutional Review Board  
1993-1995 President's Administrative Council  
1995 Member- Search and Screen Committee, Chair of Communicative Disorders, Health Science Center  
  
1995-1996 Acting Program Director- Speech-Language Pathology and Audiology  
1995-1996 Chair - Department Scholarship Committee  
1995-1997 Member - College Tenure and Promotion Committee, Liberal Arts and Sciences  
1997-2000 Member - University of Florida Intercollegiate Athletic Committee  
1998-1999 Member- College Search and Screen Committee for Associate Dean  
1998-1999 Member- Department Sustained Performance Evaluation Program  
1998 Chair- Department TIP Committee  
1998-1999 Director of the Intercampus Doctor of Audiology Program  
1999 Member, Search and Screen Committee for Audiology Faculty Member  
2000- 2004 University Ombudsman for graduate and professional students  
2000 Member – Search and Screen committee for Associate VP for Research  
2000-2001 Member – Task Force on Distance, Continuing and Executive Education  
2000-2001 Member – Task Force on University Admissions  
2000-2001 Chair – University Graduate and Professional Admissions  
2000-2001 Member, Office of Instructional Resources Instructional Technology Advisory Committee  
2001-2002 University 150<sup>th</sup> Celebration Planning Committee

- 2002 Member, Presidential Task Force on the Future of the University of Florida.  
Chair, Subcommittee Two; Ex-Officio to the other subcommittees
- 2002- 2003 Member, University Service Directory Steering Committee
- 2001-2013 Member, University Curriculum Committee
- 2001-2004 Member, Advisory Committee for Distance, Continuing and Executive Education
- 2001-2004 Member, Operations Advisory Committee for Distance, Continuing and Executive Education
- 2003 Member – Provost Task Force on Graduate Tuition and Fees
- 2003 Member – Search committee – Chair of Political Science
- 2003 Member – Search Committee – Director of Information Technology in RGP
- 2003-2005 Member - Search Committee – UF Director of Admissions
- 2005-2006 Member - Search Committee - Dean of the College of Design, Construction and Planning
- 2008-2013 Member – Workgroup formed by the Provost to develop a White paper on Distance Learning
- 2009-2010 Member – Academic Integrity Taskforce appointed by the Provost
- 2009-2010 Member – University Ombuds Search and Screen Committee

#### CONSULTING

- 1982-1983 Winter Garden Products Cooperative, Winter Garden, Florida.
- 1982 Custom Cabinets and Millworks, High Springs, Florida.
- 1982 Expert testimony. Attorneys R.S. Willis and R.M. Harris, Criminal case, Jacksonville, Florida.
- 1983-1986 Editorial Review Team for Random House Publishers.
- 1983-1986 General Dynamics Corporation, Worker compensation.
- 1988-1991 Program Reviewer - Quality Assurance (JCAH) - Monroe Regional Medical Center, Ocala, FL.

#### PATENT DEVELOPMENT

Florida Fetal Acoustic Stimulator - \$20,000 received from DSR to develop a prototype

#### RESEARCH SUPPORT

- 1978-1979 Development of an Auditory Research Laboratory, from the College of Liberal Arts and Sciences - \$13,100.
- 1979-1980 Effects of Noise Exposure on Middle-ear Muscle Activity in Man and Chinchillas, from Division of Sponsored Research, A-1-29 - \$3,300.
- 1980 Graduate Research Assistant, from Division of Sponsored Research \$2,500.
- 1980-1981 Physiological and Behavioral Correlates of Hearing in the Geriatric Population, 258-B-30 (Co-Principal Investigator with Dr. D.C. Teas), from Division of Sponsored Research - \$2,400.

1981 Equipment grant from College of Liberal Arts and Sciences. Purchase of two-room IAC Sound Suite - \$4,965.

1980-1982 Biomedical Research Grant (NIH) (F027) (with Dr. D.C. Teas), from Division of Sponsored Research - \$4,722.

1983-1984 Effects of noise exposure on dynamic characteristics of the middle ear muscle reflex in man, from the Surgeon General's Office, U.S. Army - \$2,000.

1983-1984 Agency: Department of Corrections - \$2,300.

1983-1984 Centers for Disease Control, NIOSH 5 R03OHO17 18-02 - \$45,330.

1984 Research equipment grant, College of Liberal Arts and Sciences, Graduate School, IASCP and Department of Speech - \$6,665.

1984-1985 Susceptibility to temporary threshold shifts. Division of Sponsored Research (RDA 1-74, 83-84) - \$13,000.

1984-1985 Acoustic reflex dynamics and temporary threshold shift in octave band exposures (with M.J. Moul) from the Surgeon General's Office, U.S. Army - \$4,000.

1985-1987 Noise in Utero: Characteristics and Effects on Fetal Brain. Investigator with Robert Abrams. March of Dimes - \$36,000.

1988-1989 Graduate Research Assistant. Division of Sponsored Research, University of Florida - \$4,324.

1988 Research Equipment Support. Division of Sponsored Research, UF. With Dr. R. M. Abrams - \$22,000.

1988-1992 Noise in Utero: Characteristics and Effects on Fetal Brain. Co-PI with Dr. R.M. Abrams. NIH - \$741,328.

1989-1990 Human Study of Sound in Utero. D. Richards, PI. March of Dimes- \$40,000.

1989-1990 The perception of speech sounds within the uterus of pregnant sheep. Division of Sponsored Research, UF. With W.S. Brown - \$14,500.

1992-1993 Normal and Abnormal Cochlear Morphology and Auditory Brainstem Response in Fetal Sheep. Division of Sponsored Research, UF- \$20,000.

1992-1993 Noise Exposure in Fetal Sheep. With L.L. Pierson. U.S. Army- \$13,000.

1992-1996 Microhomeostasis of the cochlear duct. Investigator with K.E. Rarey, NIH- \$1,034,922.

1993-1995 Noise-Induced Hearing Loss in Fetal Sheep. PI, March of Dimes- \$57,000.

1993-1996 Sound and Vibration in Pregnancy, Co-PI with R.M. Abrams, NIH- \$506,889.

1995 Graduate Research Assistantship. Division of Sponsored Research, UF- \$6,659.

1996-2000 Sound and Vibration in Pregnancy (Renewal), Co-PI with R.M. Abrams, NIH- \$519,660.

1996-1999 Impulse Noise Exposure: Characterization and Effects on Fetal Sheep in Utero. P.I., U.S. Army Medical Research and Materiel Command- \$264,726.

1998-1999 Cochlear Implants in Deafened Fetal Sheep in Utero. P.I., National Organization for Hearing research- \$10,000.

2000-2001 Gerhardt KJ, Babeu L. Protective effects of antioxidants against noise exposure and ototoxic drugs in the guinea pig. U.S. Army, \$12,548.

2004-2006 Gerhardt KJ. PhD Completion Project with University of Georgia and North Carolina State University. Funded through the Council of Graduate Schools. Contract with UGa, \$74,650.

#### PEER-REVIEWED PUBLICATIONS AND BOOK CHAPTERS

1. Gerhardt KJ, Melnick W, Ferraro JA. Reflex Threshold Shift in Chinchillas following a Prolonged Exposure to Noise. *J Speech Hearing Res* 1979;22:63-72.
2. Gerhardt KJ, Melnick W, Ferraro JA. Acoustic Reflex Decay During Long-Term Exposure to Noise. *Ear Hearing* 1980;1:33-37.
3. Ferraro JA, Melnick W, Gerhardt KJ. Effects of Prolonged Noise Exposure on Chinchillas with Severed Middle-Ear Muscles. *Am J Otolaryngol* 1981;2:13-18.
4. Gerhardt KJ, \*Hepler EL. Acoustic-reflex activity and behavioral thresholds following exposure to noise. *J Acoust Soc Am* 1983;74:109-114.
5. Gerhardt KJ, \*DiMeo PL, Kemker FJ, \*Kibby CM, Holmes AE. Audiometric Rinne as a public school hearing screening technique. *Fl Sp Lang Hear J* 1983;26-31.
6. \*Hepler EL, \*Moul MJ, Gerhardt KJ. Susceptibility to noise-induced hearing loss: Review and Future Directions. *Military Medicine* 1984;149:154-158.
7. \*Moul MJ, Gerhardt KJ, \*Hepler EL. Personality pattern and temporary threshold shift. *Hearing Instruments* 1985;36:12-14.
8. \*Rodriguez GP, Holmes AE, Gerhardt KJ. Microphone versus telecoil performance characteristics. *Hearing Instruments* 1985;36:22-24.
9. Gerhardt KJ, \*Walton JP. Binaural acoustic reflex activity following monaural noise exposure in decerebrate chinchillas. *Audiology* 1986;25:309-320.
10. Abrams RM, Hutchison AA, Gerhardt KJ, Evans SL, Pendergast J. Local Cerebral Glucose utilization in fetal sheep exposed to noise. *Am J Obst Gyn* 1987;157:456-460.
11. Lombardino LJ, \*Stapell JB, Gerhardt KJ. Evaluating communicative behaviors in Infancy. *J Pediatric Health Care* 1987;1:240-246.
12. Gerhardt KJ, \*Rodriguez GP, \*Hepler EL, \*Moul ML. Ear canal volume and variability in the patterns of temporary threshold shifts. *Ear Hearing* 1987;8:316-321.
13. Gerhardt KJ, Abrams RM, Kovaz BM, \*Gomez KJ, Conlon M. Intrauterine noise levels in pregnant ewes produced by sound applied to the abdomen. *Am J Obst Gyn* 1988;159:228-232.
14. \*Rodriguez GP, Gerhardt KJ. Adaptation properties of the acoustic reflex in response to continuous-, intermittent- and industrial-noise stimulation. *Audiology* 1988;27:344-355.
15. \*Rodriguez GP, \*Walker-Edwards PJ, Gerhardt KJ. Outer ear measures as predictors of ear canal resonant frequency. *Audiol Acoustics* 1989;28:28-35.
16. \*Rodriguez GP, Gerhardt KJ, \*Hepler EL. Phenomenologic aspects of the acoustic reflex following noise exposure. *Am J Otolaryngol* 1989;10:468-473.
17. Gerhardt KJ. Characteristics of the fetal sheep sound environment. *Sem Perinatol* 1989;13:362-370.
18. Abrams RM, Hutchison AA, Gerhardt KJ. Effect of high-intensity sound on local cerebral glucose utilization in fetal sheep. *Dev Brain Res* 1989;48:1-10.

19. Gerhardt KJ, Abrams RM, Oliver CC. Sound environment of the fetal sheep. *Am J Obst Gyn* 1990;162:282-287.
20. Gerhardt KJ. Prenatal and perinatal risks of hearing loss. *Sem Perinatol* 1990;14:299-304.
21. Burchfield DJ, \*Graham EM, Abrams RM, Gerhardt KJ. Cocaine alters behavioral states in fetal sheep. *Dev Brain Res* 1990;56:41-45.
22. \*Rodriguez GP, Gerhardt KJ. Influence of outer ear resonant frequency on patterns of temporary threshold shift. *Ear Hearing* 1991;12:110-114.
23. Abrams RM, Gerhardt KJ, Burchfield DJ. Behavioral state transition and local cerebral blood flow in fetal sheep. *J Dev Physiol* 1991;15:283-288.
24. \*Graham EM, \*Peters AJM, Abrams RM, Gerhardt KJ, Burchfield DJ. Intraabdominal sound levels during vibroacoustic stimulation. *Am J Obst Gyn* 1991;164:1140-1144.
25. Richards DS, Abrams RM, Gerhardt KJ, \*McCann ME. Effects of vibration frequency and tissue thickness on intrauterine sound levels in sheep. *Am J Obst Gyn* 1991;165:438-442.
26. \*Peters AJM, Abrams RM, Gerhardt KJ, Burchfield DJ. Vibration of the abdomen in non-pregnant sheep: Effect of dynamic force and surface area of vibrator. *J Low Freq Noise Vib* 1991;10(3):92-99.
27. \*Peters AJM, Abrams RM, Gerhardt KJ, Longmate JE. Three dimensional sound and vibration frequency responses of the sheep abdomen. *J Low Freq Noise Vib* 1991;10(4):100-111.
28. Gerhardt KJ, Otto R, Abrams RM, \*Colle J, Burchfield DJ, \*Peters AJM. Cochlear microphonics recorded from fetal and newborn sheep. *Am J Otolaryngol* 1992;13(4):226-233.
29. \*Peters AJM, Abrams RM, Gerhardt KJ, Burchfield DJ, Wasserman DE. Resonance of the pregnant sheep uterus. *J Low Freq Noise Vib* 1992;11(1):1-6.
30. Abrams RM, Burchfield DJ, Gerhardt KJ, \*Peters AJM. Effects of cocaine on electrocortical activity in fetal sheep. *Dev Brain Res* 1992;70:97-102.
31. Richards DS, Frentzen B, Gerhardt KJ, \*McCann ME, Abrams RM. Sound levels in the human uterus. *Obst Gynecol* 1992;80(2):186-190.
32. \*Peters AJM, Abrams RM, Gerhardt KJ, Longmate JE. Three dimensional intraabdominal sound pressures in sheep produced by airborne stimuli. *Am J Obst Gyn* 1993;169:1304-1315.
33. \*Peters AJM, Abrams RM, Gerhardt KJ. Abdominal vibration alters sleep state in fetal sheep. *J Dev Physiol* 1993;19:227-234.
34. \*Peters AJM, Abrams RM, Gerhardt KJ, Griffiths SK. Transmission of airborne sound from 50-20,000 Hz into the abdomen of sheep. *J Low Freq Noise Vib* 1993;12(1):16-24.
35. Abrams RM, \*Peters AJM, Gerhardt KJ, Burchfield DJ. Vibroacoustic stimulation in fetal sheep: Effect on cerebral glucose utilization and behavioral state. *J Dev Physiol* 1993;19:171-177.
36. Griffiths SK, \*Pierson LL, Gerhardt KJ, Abrams RM, \*Peters AJM, Burchfield DJ. Noise-induced hearing loss in fetal sheep. *Hearing Res* 1994;74:221-230.
37. \*Pierson LL, Gerhardt KJ, \*Rodriguez GP, Yanke RB. Relationship between outer ear resonance and permanent noise-induced hearing loss. *Am J Otolaryngol* 1994;15:37-40.



38. \*Pierson LL, Gerhardt KJ, Abrams RM, Griffiths SK, \*Peters AJM. Effect of impulse noise on the auditory brainstem response of the fetal sheep and the adult ewe: Case study. *Military Medicine* 1994;159:676-680.
39. Griffiths SK, Brown WS, Gerhardt KJ, Abrams RM, \*Morris RJ. The perception of speech sounds recorded within the uterus of a pregnant sheep. *J Acoust Soc Am* 1994;96:2055-2063.
40. Abrams RM, Gerhardt KJ, Richards DS, \*Peters AJM. Fetal vibroacoustic stimulation test: Features of the stimulus. *Fetal and Maternal Medicine Rev* 1995;7:87-97.
41. Rarey KE, Gerhardt KJ, Curtis LM, \*ten Cate WJF. Effect of stress on cochlear glucocorticoid protein: Acoustic stress. *Hearing Res* 1995;82:135-138.
42. \*Pierson LL, Gerhardt KJ, Griffiths SK, Abrams RM. Auditory brainstem response in sheep: Part I: Fetal development. *Dev Psychobiol* 1995;28:293-305.
43. Abrams RM, Gerhardt KJ, \*Rosa C, \*Peters AJM. Fetal acoustic stimulation test: Stimulus features of three artificial larynges recorded in sheep. *Am J Obstet Gyn* 1995;173:1372-1376.
44. \*Peters AJM, Abrams RM, Gerhardt KJ, Griffiths SK. Sound pressure gradients across the head of fetal sheep *in utero* during vibroacoustic stimulation. *J Low Freq Noise Vib* 1995;14:1-9.
45. \*Ma YL, Gerhardt KJ, Curtis LM, Rybak LP, Whitworth C, Rarey KE. Combined effects of adrenalectomy and noise exposure on compound action potentials, endocochlear potentials and potassium concentration. *Hearing Res* 1995;91:79-86.
46. Abrams RM, Gerhardt KJ, \*Peters AJM. Transmission of sound and vibration to the fetus. In: *Fetal Development: A Psychobiological Perspective*. J-P. Lacanuet, W.P. Fifer, N.A. Krasnegor, and W.P. Smotherman (eds.), Lawrence Erlbaum Associates, Publishers, New Jersey. 1995;315-330.
47. Griffiths SK, \*Pierson LL, Gerhardt KJ, Abrams RM, \*Peters AJM. Auditory brainstem response in sheep. Part II: Postnatal development. *Dev Psychobiol* 1996;29:53-68.
48. \*Peters AJM, Abrams RM, Gerhardt KJ, Wasserman DE. Acceleration of fetal head induced by vibration of maternal abdominal wall in sheep. *Am J Obstet Gyn* 1996;174:552-556.
49. Gerhardt KJ, Abrams RM. Fetal Hearing: Characterization of the stimulus and response. *Sem Perinatol* 1996;20:11-20.
50. Abrams RM, Gerhardt KJ. Vibration of the abdominal segment in pregnant sheep. *Sem Perinatol* 1996;20:30-37.
51. Gerhardt KJ, \*Huang X, \*Arrington KE, \*Meixner KE, Abrams RM, Antonelli PJ. Fetal sheep hear through bone conduction. *Am J Otolaryngol* 1996;17:374-379.
52. \*Ma YL, Rarey RE, Gerhardt KJ, Curtis LM, Rybak LP. Electrochemical potentials and potassium concentration profiles recorded from perilymph, endolymph, and associated inner ear tissues in adrenalectomized rats. *Hearing Res* 1996;96:151-156.
53. \*Ma YL, Gerhardt KJ, Rybak LP, Curtis LM, Rarey KE. In situ real-time sequential potentiometric determinations of potassium concentrations from three cochlear regions in noise-exposed rats. *Eur Arch Otorhinolaryngol* 1996;253:201-204.

54. Abrams RM, \*Schwab M, Gerhardt KJ, \*Bauer R, \*Peters AJM. Vibroacoustic stimulation with a complex signal: Effect on behavioral state in fetal sheep. *Biol Neonate* 1996;70:155-164.
55. Rarey KE, \*Ma YL, Gerhardt KJ, Fregly MJ, Garg LC, Rybak LP. Correlative evidence of hypertension and altered cochlear microhomeostasis: Electrophysiological changes in the spontaneously hypertensive rat. *Hearing Res* 1996;102:63-69.
56. Gerhardt KJ, \*Pierson LL, Abrams RM. Fetal response to intense sounds. In: *Scientific Basis of Noise-Induced Hearing Loss*. A. Axelsson, P-A. Hellstrom, H.M. Borchgrevink, D. Henderson, R. P. Hamernik and R. Salvi (eds.). Thieme Medical Publishers, Inc., New York, 1996;229-240.
57. \*Ma YL, Rarey KE, Gerhardt KJ, Rybak LP, Garg LC. Altered calcium homeostasis in the rat cochlear duct and endogenous corticosteroid insufficiency. *Eur Arch Otorhinolaryngol* 1997;254:165-168.
58. Abrams RM, \*Peters AJM, Gerhardt KJ. Effects of abdominal vibroacoustic stimulation on sound and acceleration levels at the head of the fetal sheep. *Obstet Gynecol* 1997;90:216-220.
59. \*Huang X, Gerhardt KJ, Abrams RM, Antonelli PJ. Temporary threshold shifts induced by low-pass and high-pass filtered noises in fetal sheep *in utero*. *Hearing Res* 1997;113:173-181.
60. Abrams RM, Gerhardt KJ, \*Kelly-Jones A, \*Huang X, \*Peters AJM. Acceleration of the fetal head: Effect of distance from vibration source. *J Sound Vib* 1997;206:442-447.
61. \*Bauer R, Abrams RM, \*Schwab M, Stein J, Gerhardt KJ. Electrocardiac and heart rate response during vibroacoustic stimulation in fetal sheep. *Am J Obst Gyn* 1997;177:66-71.
62. Abrams RM, Gerhardt KJ. Some Aspects of Foetal Sound Environment. In: *Perception and Cognition of Music*. I. Deliège and J. Sloboda (eds.), Lawrence Erlbaum, Inc., East Sussex, United Kingdom, 1997;83-101.
63. Abrams RM, Griffiths SK, \*Huang X, Sain J, Langford G, Gerhardt KJ. The fetal musical environment. *Proceedings of the Eur Soc Cognitive Sciences Music* 1997;684-687.
64. Gerhardt KJ, \*Huang X, Griffiths SK, Abrams RM. Effects of impulse noise on the hearing of fetal sheep *in utero*. *Proceedings of the 16<sup>th</sup> International Conference on Acoustics and the 135<sup>th</sup> Meeting of the Acoustical Society of America* 1998:Vol I-IV:2641-2652.
65. Abrams RM, Griffiths SK, \*Huang X, Sain J, Langford G, Gerhardt KJ. Fetal music perception: The role of sound transmission. *Music Perception* 1998;15:307-318.
66. Gerhardt KJ, \*Ma YL, Rybak LP, Rarey KE. Interaction of methylprednisolone and transient asphyxia on the inner ear of the adrenalectomized rat. *Otolaryngol-Head Neck Surg* 1998;118:338-343.
67. Antonelli PJ, Abrams RM, Gerhardt KJ, \*Schwab M, \*Bauer R. Vestibular function in the fetal sheep. *Otolaryngol-Head Neck Surg* 1998;118:571-575.
68. Abrams RM, Gerhardt KJ, \*Kelly-Jones A, \*Peters AJM. Vibration transmission through the sheep pelvis. *J Sound Vib* 1998;214:383-388.
69. Abrams RM, Gerhardt KJ, Antonelli PJ. Fetal hearing. *Devel Psychobiol* 1998; 33(1):1-3.

70. Abrams RM, Gerhardt KJ, Griffiths SK, \*Huang X, Antonelli PJ. Intrauterine sounds in sheep. *J Sound Vib* 1998;216:539-542.
71. Abrams RM, \*Schwab M, Gerhardt KJ, \*Bauer R, Bludau T, Antonelli PJ. Vestibular caloric responses and behavioral state in fetal sheep. *Inter J Pediat Otorhinolaryngol* 1998;45:59-68.
72. Gerhardt KJ, Pierson LL, \*Huang X, Abrams RM, Rarey KE. Effects of intense noise exposure on fetal sheep auditory brainstem response and inner ear histology. *Ear Hear* 1999;20:21-32.
73. Abrams RM, Griffiths SK, \*Huang X, Gerhardt KJ, Langford G. The beat of the drum: What does the fetus hear? *Percussive Notes*, 1999;37:62-64.
74. Abrams RM, \*Peters AJM, \*Huang X, Wasserman DE, Gerhardt KJ. Response of the uterus to abdominal vibration in sheep. *J Sound Vibration* 2000; 230(3):725-728.
75. Abrams RM, Gerhardt KJ, \*Huang X, \*Peters AJM, Langford RG. Musical experiences of the unborn baby. *J Sound Vibration* 2000; 231(1):253-258.
76. Gerhardt KJ, Abrams RM, Griffiths SK, \*Huang X, \*Peters AJM. Intra-abdominal sound pressure levels following impulse noise exposures in sheep. *Military Med.* 2000;165(2):153-156.
77. Antonelli PJ, \*Briggs RD, Gerhardt KJ. Hearing preservation with labyrinthine ablation in otitis media. *Laryngoscope* 2000;110:779-786.
78. Gerhardt KJ. A doctoral degree in audiology offered through distance learning. In: *Teaching with Technology*, Brown DG (Editor). Anker Publishing Company, Inc. Bolton, MA, 2000: 129-132.
79. Gerhardt KJ and Abrams RM. Fetal exposures to sound and vibroacoustic stimulation. *Journal of Perinatology*, 2000;20(2):S21-S30.
80. \*Bauer R, Gerhardt KJ, Abrams RM, Huang X, \*Bauer K. Effects of impulse stimulation on electrocorticogram and heart rate in fetal sheep. *Biology of the Neonate*, 2001;79:113-121.
81. Antonelli PJ, Gerhardt KJ, Abrams RM, \*Huang X. Fetal central auditory system metabolic response to cochlear implant stimulation. *Otolaryngology – Head and Neck Surgery*, 2002;127(3):131-137.
82. Gerhardt KJ, Abrams RM. Fetal Hearing: Implications for the Neonate. In *Music Therapy in the Unborn Child*. Monika Nocker-Ribaupierre (Hrsg.) Verlag Vandenhoeck & Ruprecht, Gottingen, 2003: 44-60 (German).
83. \*Smith SL, Gerhardt KJ, Griffiths SK, \*Huang X, Abrams RM. Intelligibility of Sentences Recorded From the Uterus of a Pregnant Ewe and From the Fetal Inner Ear. *Audiology & Neuro-Otology*, 2003;8:347-353.
84. Gerhardt KJ, Abrams, RM. Fetal Hearing: Implications for the Neonate. In *Music Therapy for Premature and Newborn Infants*. Monika Nocker-Ribaupierre, (Editor). Barcelona Publishers, Gilsum NH, 2004: 21-32 (English Translation).

\*Student, Resident, Post-doctoral Fellow, or Visiting Scholar

## PUBLISHED ABSTRACTS

53 published abstracts in: American Speech-Language-Hearing Association; Acoustical Society of America; Society for Gynecologic Investigation; Federation of American Societies for Experimental Biology; Physiologist; Southeastern Microscopy Society; American Journal of Obstetrics and Gynecology; International Union of Physiological Sciences; Association for Research in Otolaryngology

## PRESENTATIONS (70 presentations from 1976 to 1993 not listed here)

1. Gerhardt KJ. Fetal hearing: measurement and response. Invited paper at the Thirty-fifth Navy Occupational Health and Preventive Medicine Workshop. Virginia Beach, Virginia, 1994.
2. Gerhardt KJ. Effects of intense noise on fetal sheep auditory brainstem response. Invited paper at the Vth International Conference on the Effects of Noise on Hearing. Gothenburg, Sweden, May 1994.
3. Pierson LL, Gerhardt KJ. Effects of intense noise on fetal sheep hearing mechanism. Presentation at 127<sup>th</sup> Meeting of the Acoustical Society of America. Cambridge, Massachusetts, June 1994.
4. Abrams RM, Gerhardt, KJ. Fetal sound environment. Proceedings of the Third International Conference for the Perception and Cognition of Music. University of Liege, Belgium, pp. 95-96, July 1994.
5. Abrams RM, Peters AJM, Gerhardt KJ. Effect of abdominal vibroacoustic stimulation on acceleration levels at the fetal head in sheep. Paper presented at the American Physiology Society conference. Sarasota, Florida, October 1994.
6. Ma YL, Gerhardt KJ, Curtis LM, Rybak LP, Rarey KE. Combined effects of adrenalectomy and noise exposure on compound action potentials, endocochlear potentials and potassium concentration. Paper presented at the Midwinter Research Meeting for the Association for Research in Otolaryngology. St. Petersburg Beach, Florida, February 1995.
7. Pierson LL, Gerhardt KJ, Griffiths SK, Abrams RM, Rarey KE. Effects of exposure to intense sound on fetal sheep *in utero*. Paper presented at the Midwinter Research Meeting for the Association for Research in Otolaryngology. St. Petersburg Beach, Florida, February 1995.
8. Crandell CC, Gerhardt KJ, Griffiths SK. Issues in noise-induced hearing loss. Instructional course presentation at the American Academy of Audiology convention. Dallas, Texas, March 1995.
9. Kelly-Jones A, Abrams RM, Gerhardt KJ, Peters AJM, Wilder DG. Response of the fetal pelvis to sinusoidal vibratory stimulation. Paper presented at the Experimental Biology Annual Meeting. Atlanta, Georgia, April 1995.
10. Gerhardt KJ, Huang X, Arrington KE, Meixner KE, Abrams RM. Method by which sounds reach the inner ear of fetal sheep *in utero*. Paper presented at the Experimental Biology Annual Meeting Atlanta, Georgia, April 1995.

11. Abrams RM, Gerhardt KJ. Response of the sheep pelvis to sinusoidal vibratory stimulation. Presentation at the First Annual Health Science Center Research Week. Gainesville, FL, October 17, 1995.
12. Abrams RM, Peters AJM, Gerhardt KJ. Effect on fetus of vibrational exposure of maternal abdominal segment. Presentation at the Inaugural Meeting of National Leaders in Women's Health. Gainesville, FL, February 16-17, 1996.
13. Huang X, Gerhardt KJ, Abrams RM, Rarey KE. Temporary threshold shifts induced by low-pass and high-pass filtered noises in fetal sheep in utero. Paper presented at the Midwinter Research Meeting for the Association for Research in Otolaryngology. St. Petersburg, Florida, February 1996.
14. Gerhardt KJ. Fetal hearing: Characterization of the stimulus and response. Paper presented at the International Conference on Pregnant Women in the Workplace. Gainesville, Florida, February 1996.
15. Crandell CC, Gerhardt KJ, Pierson LL. Current issues in noise-induced hearing loss. Instructional course presentation at the American Academy of Audiology convention. Salt Lake City, Utah, April 1996.
16. Abrams RM, Peters AJM, Gerhardt KJ. Effect on the fetus of vibrational exposure of maternal abdominal segment. Paper presented at the meeting of National Leaders in Women's Health conference. Gainesville, Florida 1996.
17. Abrams RM, Gerhardt KJ. The fetal sound environment. Presentation at the Third joint meeting of the Acoustical Society of American and Acoustical Society of Japan. Honolulu, Hawaii, December 1996.
18. Antonelli PJ, Abrams RM, Gerhardt KJ. Vestibular function in the fetus. Presentation at the 100<sup>th</sup> Annual Meeting of the American Academy of Otolaryngology-Head and Neck Surgery Foundation, Washington, D.C., October 1996.
19. Huang X, Gerhardt, KJ, Abrams RM, Rarey KE. Morphological evidence of noise-induced hearing loss in fetal sheep in utero. Paper presented at the Health Science Center Research Week, Gainesville, Florida, November 1996.
20. Huang X, Gerhardt, KJ, Abrams RM, Rarey KE. Morphological evidence of noise-induced hearing loss in fetal sheep in utero. Paper presented at the Midwinter Research Meeting for the Association for Research in Otolaryngology. St. Petersburg, Florida, February 1997.
21. Gerhardt KJ, Ma YL, Rybak LP, Curtis LM, Rarey KE. The effect of methylprednisolone and transient asphyxia on the inner ear of the adrenalectomized rat. Paper presented at the Midwinter Research Meeting for the Association for Research in Otolaryngology. St. Petersburg, Florida, February 1997.
22. Griffiths SK, Abrams RM, Huang X, Sain JP, Gerhardt KJ. Transmission of music and speech into the fetal environment. Paper presented at the Second Meeting of National Leaders in Women's Health. Gainesville, Florida, February 1997.
23. Abrams RM, Griffiths SK, Huang X, Sain J, Langford G, Gerhardt KJ. The fetal musical environment. Paper presented at the Third Triennial Conference of the European Society for the Cognitive Sciences of Music. Uppsala, Sweden, June 1997.
24. Pierson, LL, Gerhardt KJ, Abrams RM, Huang X. Effects of intense noise exposure on the auditory brain-stem response and inner ear histology of fetal sheep. Invited paper presented at the Acoustical Society of America. San Diego, California, December 1997.

25. Gerhardt KJ, Pierson, LL, Abrams RM, Huang X. Transmission of continuous and impulse noise to the fetus in utero. Invited paper presented at the Acoustical Society of America. San Diego, California, December 1997.
26. Abrams, RM, Gerhardt KJ, Huang X. Women in the workplace: Effects of vibration exposure. Paper presented at the Women's Health Studies and Music: A Meeting of National, International and Regional Leaders. Gainesville, Florida, March 13-15, 1998.
27. Griffiths SK, Brown WS Jr., Abrams, RM, Dutka JD, Gerhardt KJ, Richards DJ. Her Mother's Voice. Paper presented at the Women's Health Studies and Music: A Meeting of National, International and Regional Leaders. Gainesville, Florida, March 1998.
28. Huang X, Gerhardt KJ, Griffiths SK, Abrams, RM. Effects of impulse noise on fetal sheep *in utero*. Paper presented at the Women's Health Studies and Music: A Meeting of National, International and Regional Leaders. Gainesville, Florida, March 1998.
29. Gerhardt KJ, Huang X, Griffiths SK, Abrams RM. Effects of impulse noise on the hearing of fetal sheep *in utero*. Invited paper presented at the Acoustical Society of America. Seattle, Washington, June 1998.
30. Gerhardt KJ. Effects of fetal and neonatal sound exposure. Invited paper at the Physical and Developmental Environment of the High-risk Infant Conference. Clearwater Beach Florida, January 1999.
31. Gerhardt KJ, Hall JT. Key issues for auditory development in preterm infants. Invited paper presented at the Physical and Developmental Environment of the High-risk Infant Conference. Clearwater Beach Florida, January 1999.
32. Huang X, Gerhardt KJ, Abrams RM, Antonelli PJ, Rarey KE. Scanning electron microscopy of fetal sheep inner ear tissue following impulse noise exposure. Paper presented at the Midwinter Research Meeting for the Association for Research in Otolaryngology. St. Petersburg, Florida, February 1999
33. Gerhardt KJ. Effects of impulse and continuous noise exposures on fetal hearing. Invited paper presented at the 24<sup>th</sup> Annual National Hearing Conservation Association Conference. Atlanta, Georgia, February 1999.
34. Huang X, Gerhardt, KJ, Abrams RM, Antonelli PJ, Rarey KE. Scanning electron microscopy of fetal sheep inner ear tissue following impulse noise exposure. Paper presented at the Annual conference of the Southeastern Microscopy Society. Gainesville, FL, March 1999.
35. Gerhardt KJ. Effects of fetal and neonatal sound exposure. Invited. Pediatric Grand Rounds, CME. Gainesville FL, July 1999.
36. Gerhardt KJ. Hearing loss in the neonate. Invited. Ob/Gyn Grand Rounds, CME. Gainesville FL, July 1999.
37. Gerhardt KJ. The AuD: Basic Sciences and Clinical Applications. Invited. Wisconsin Audiology Academy Conference. Elkhart Lake, WI, October 1999.
38. Gerhardt KJ. Sound and the fetus. Invited. 15<sup>th</sup> Annual Developmental Intervention in Neonatal Care Conference. Chicago, IL, November 1999.
39. Abrams, RM, Gerhardt KJ, Peters AJM, Langford, RG. Musical experiences of the unborn baby. Presentation at the National Conference of Developmental Biology. Miami FL, August 1999.
40. Gerhardt KJ. Fetal and early postnatal effects of noise exposure. Presentation at the American Academy of Audiology Conference. Chicago, March 2000.

41. Gerhardt KJ. Industrial Audiology update. Presentation at the Florida Academy of Audiology Convention, Coral Springs FL, September 2000.
42. Gerhardt KJ. Doctor of Audiology Programs Update. Presentation at the Florida Academy of Audiology Convention, Coral Springs FL, September 2000.
43. Gerhardt, KJ, Graven S, Philbin MK. NICU Environment – Noise and noise control. Presentation at the National Perinatal Association Annual Clinical Conference and Exposition. Charlotte NC, November 2000.
44. Gerhardt KJ. The Virtual Factory. Faculty Showcase for Instructional Technology. Demonstration of a CD-ROM at the technology fair. Gainesville FL, March 2001.
45. Antonelli PJ, Gerhardt KJ, Abrams RM. Fetal central auditory system response to cochlear implantation in utero. Paper presented at the Annual Meeting of the American Academy of Otolaryngology-Head and Neck Surgery, Denver CO, September 2001.
46. Huang X, Gerhardt KJ. Intelligibility of speech recorded from the cochlea of fetal sheep in utero. Paper presented at the Midwinter Research Meeting for the Association for Research in Otolaryngology. St. Petersburg, Florida, February 2002.
47. Babeu L, Gerhardt KJ. Effects of noise, Chloroquine and antioxidants on ABR thresholds and DPOAE in guinea pigs. Paper presented at the Military Audiology Meeting. Nashville, TN, February 2002.
48. Grasso, M, Gerhardt, K, Sowell, R. The Importance of Strategic Intervention in Graduate Education. Conference of Southern Graduate School, Little Rock, Arkansas, February 2006.
49. Gerhardt, K, Correa V. Information Technology for Student Progress. Conference of Southern Graduate School, Little Rock, Arkansas, February 2006.