

**Curriculum Vitae**

**Name:** Lynne Ann Werner (Formerly Lynne Werner Olsho)

**Academic Rank:** Professor  
Department of Speech and Hearing Sciences

**Date of Birth:** June 28, 1951

**EDUCATIONAL BACKGROUND**

<b>Institution</b>	<b>Degree</b>	<b>Date</b>
Loyola University of Chicago	Ph.D.	1980
Loyola University of Chicago	M.A.	1978
Northwestern University	B.A.	1973

**Ph.D. DISSERTATION TITLE**

“Auditory frequency analysis in infancy”

**EMPLOYMENT RECORD**

<b>Institution</b>	<b>Position</b>	<b>Dates</b>
Department of Speech and Hearing Sciences Department of Otolaryngology - Head and Neck Surgery (Adjunct) <i>University of Washington</i>	Professor Associate Professor Associate Professor (WOT) Research Associate Professor Research Assistant Professor	1999- 1995-1999 1992-1995 1992 1990-1992
Department of Otolaryngology - Head and Neck Surgery Department of Speech and Hearing Sciences (Adjunct) <i>University of Washington</i>	Research Assistant Professor	1986-1990
Department of Otolaryngology – Head and Neck Surgery Department of Speech and Hearing Sciences <i>University of Virginia</i>	Research Assistant Professor	1984-1986
Department of Psychology <i>Virginia Commonwealth University</i>	Assistant Professor	1979-1984
Department of Psychology <i>University of Loyola at Chicago</i>	Instructor and Research Assistant	1975-1979

## **COURSES TAUGHT**

Undergraduate:

Introduction to Hearing Science

Graduate:

Advanced Hearing Science

Hearing Development

Research Methods

Grant Writing in the Speech and Hearing Sciences

Doctoral Research Forum

Research Training Seminar

Hearing Science and Disorders

## **RESEARCH GRANTS AND CONTRACTS**

Co-Principal Investigator, NIH Grant No. R13 DC014923; “Auditory Development Conference”; August 1, 2015 - July 31, 2016: \$17,800.

Principal Investigator, Royalty Research Fund A79498; “Development of a bias-free measure of infant auditory sensitivity;” March 1, 2013 – April 30, 2014; \$39, 840.

Program Director, NIH Grant No. T32 DC00033; “Research Training in Speech and Hearing Sciences;” July 1, 2006 – June 30, 2016; Current year budget \$235,862 direct costs.

Principal Investigator, NIH Grant No. R01 DC00396; "Development of Frequency Resolution in Infancy;" December 1, 1987 - June 30, 2017; Current year budget \$233,780 direct costs.

Core Director; NIH grant no. P30 DC04661 (E. W Rubel, Program Director); "Hearing Research Core, Core A: Human Subjects Recruitment Core;" July 1, 2000 - June 30, 2015; Current year budget \$75,182.

Principal Investigator, Bloedel Mini-grant, “Perceptual constancy for vowels in infants with cochlear implants;” January 1, 2009 - December 31, 2009, \$5000.

Principal Investigator, CMBL award, "Longitudinal Language Study;" April 1, 2001 - June 30, 2003; Current year budget \$71,047

Principal Investigator, Royalty Research Foundation, "The role of audition in infants' attention to infant-directed speech;" April 1, 2002 - May 31, 2003. Budget \$22,134.

Co-investigator, Deafness Research Foundation; “Physiological and psychoacoustic measures of hearing development in Down syndrome” (R. Folsom, Principal Investigator). January 1, 2000 – December 31, 2000. Annual budget \$25,000.

**RESEARCH GRANTS AND CONTRACTS (continued)**

Co-investigator, National Organization for Hearing Research; “Tympanometry and reflectance in infants and children with Down syndrome” (R. Folsom, Principal Investigator). February 1, 2000 – January 31, 2000. Annual budget \$10,000.

Principal Investigator, NIH Grant No. P01 DC00520; "Psychoacoustic, Evoked Potential and Acoustic Measures of Infant Auditory Function" (Project 4 of Hearing Development Program Project, E.W Rubel, Program Director); July 1, 1988 - June 30, 1998; Current year budget, \$49,322 direct costs.

Principal Investigator, March of Dimes Grant No. 12-176; “Development of Behavioral Auditory Assessment of Young Human Infants”; March 1, 1988 - February 30, 1992; Annual budget \$17,000 direct costs.

Principal Investigator, Virginia Merrill Bloedel Hearing Research Center; “Selective Attention to Sound Frequency in Infants and Adults”, July 1, 1991 - June 30, 1992; \$2,240.

Principal Investigator, “Developmental Psychoacoustics Conference”. Several grants were obtained to support a conference held at the University of Washington in August, 1991:

American Psychological Association Conference Grant	\$13,492
NIH Grant No. R13 DC01069 (direct costs)	\$10,000
Virginia Merrill Bloedel Hearing Research Center	\$ 3,317
University of Washington College of Arts & Sciences	\$ 2,000
University of Washington Graduate School	\$ 2,225

Co-investigator; University of Virginia Pratt Fund Award; “Sound-Attenuated Newborn Testing Room”; July 1, 1985 - June 30, 1986; \$17,835.

Principal Investigator, Virginia Commonwealth University Biomedical Grant-in-Aid, “Frequency Resolution in Human Infants”; January 1, 1982 - December 30, 1982; \$3,746.

Principal Investigator, Virginia Commonwealth University Grant-in-Aid, “Auditory Frequency Discrimination in Human Infants”; June 1, 1980 - May 31, 1981; \$3,765.

## PROFESSIONAL OFFICES, AWARDS, SERVICE

### Departmental Committees

Chair, Doctoral Curriculum Revision Committee, 1992-1998  
Chair, Peer Teaching Evaluation Committee, 1995-2003  
Member, Tenure Committee for Chris Moore 1995-1997  
Member, Tenure Committee for Pam Souza, 1997-2002  
Executive Committee/ Normal Aspects Interest Group Head, 1997-1998, 1999-2000, 2002-2003, 2004-2005, 2007-present.  
Member, Audiology Search Committee, 2003-2005  
Chair, Normal Aspects Search Committee, 2004-2005  
Chair, Mentoring Committee for Kristie Spencer 2004-2008  
Member, Mentoring Committee for Tanya Eadie, 2003-2008  
Chair, Mentoring Committee for Chris Stecker, 2005-2010  
Chair, Neurogenics/Speech Science Search Committee, 2007-2008  
Chair, Website Redesign Committee, 2009-2013  
Chair, Organizing Committee for Seminars in Hearing and Communication Sciences, 2008-2014  
Member, Tech Committee, 2014 – 2015  
Member, Mentoring Committee, Jessica Sullivan, 2011-2015  
Member, Faculty Search Committee, 2014-2015

### University committees

Member, Affiliate Liaison Committee, Virginia Merrill Bloedel Hearing Research Center, 1995-1998, 2004-present  
Member, Bloedel Hearing Research Center Director Search Committee, 2003-2004  
Royalty Research Fund Review, 1998, 1999, 2000, 2002  
Member, Speech and Hearing Chair Search Committee, 1998  
Member, Faculty Senate, University of Washington, 1996-1998  
Member, Otolaryngology Chair Search Committee, 2007-2008

### Training grants

Auditory Neuroscience Training Program, Program Director Perkel  
Research Training in Speech and Hearing Science, Program Director Werner

### National and international committees

Chair, Membership Committee of the Acoustical Society of America, 2012 – present.  
*Ad hoc* grant reviewer, NIDCD, 2007-present  
Member, Membership Committee of the Acoustical Society of America, 2007-2012  
*Ad hoc* grant review for NIDCD P30 program, Bethesda, January 2006.  
Research Consultant, Dept. Speech and Hearing Sciences, University of Arizona, 2004-present.  
Member, Technical Committee on Psychological and Physiological Acoustics, Acoustical Society of America, 1987-1992, 2005-present.

## PROFESSIONAL OFFICES, AWARDS, SERVICE

### National and international committees (continued)

Member, Technical Program Organizing Committee, Acoustical Society of America, Spring 1998 meeting

Member, Grant Review Committee, National Organization for Hearing Research, January 1994 - 1996.

Consultant, NIDCD Research and Training Center, Vanderbilt University; July, 1991 - June 1993.

Member, Hearing Research Study Section, NIH, October 1987 - September 1991.

### Editorial review

Guest Associate Editor, Journal of Speech Language and Hearing Research, 2012-2013.

Regular *ad hoc* reviewer for

- Acta Paediatrica
- Child Development
- Developmental Psychobiology
- Developmental Psychology
- Developmental Science
- Ear & Hearing
- Infancy
- Infant Behavior and Development
- Journal of the Acoustical Society of America
- Journal of the Association for Research in Otolaryngology
- Journal of Experimental Child Psychology
- Journal of Pediatrics
- Journal of Speech Language and Hearing Research
- Perception and Psychophysics

### Honors

Fellow, Acoustical Society of America, June 2002

Honorable Mention, University of Washington Distinguished Graduate Mentor Award, 2002

Virginia Merrill Bloedel Hearing Research Scholar, 1999-2002

Paper— Olsho, L., Koch, E.G., Carter, E.A., Halpin, C.F. and Spetner, N.B. 1988. Pure tone sensitivity of human infants. *Journal of the Acoustical Society of America*, 84, 1316-1324— chosen as a 'Major Work' to be reprinted in *Sage Benchmarks in Psychology: Developmental Psychology*, J.G. Bremner and C. Lewis (Ed).

## RECENT TALKS, PRESENTATIONS, PAPERS

### Invited Presentations

Werner, L.A. 2005. How infants deal with uncertainty v. 2, Dept. Speech and Hearing Sciences, University of British Columbia, Vancouver, BC, September.

**RECENT TALKS, PRESENTATIONS, PAPERS**

**Invited Presentations (continued)**

Werner, L.A. 2006. How infants deal with uncertainty v. 2, Dept. Communication Disorders, University of Wisconsin, Madison, WI, January.

Werner, L.A. 2006. Issues in auditory development. Keynote Speaker, 16th Annual Research Symposium: Issues of Development and Plasticity of the Auditory System, American Speech-Language-Hearing Association, Miami Beach, November.

Werner, L.A. 2007. The development of auditory attention and its effects on fundamental aspects of hearing. Translational Research Lecture, American Auditory Society, Scottsdale, AZ, March.

Werner, L.A. 2007. The development of auditory attention. Massachusetts Eye and Ear Infirmary, April.

Werner, L.A. 2007. How infants deal with uncertainty v. 3, Hearing Group Colloquium, Boston University, Boston, April.

Werner, L.A. 2007. Factors that promote selective listening by infants. Northwest Auditory Meeting, Portland, OR, October.

Werner, L.A. 2007. Applications of psychophysical methods to the study of auditory development. Speech and Hearing Sciences Department Colloquium, October.

Werner, L.A. 2008. Human auditory development. Hallpike Symposium, London UK, February.

Werner, L.A. 2008, Stages of human auditory development. Department of Speech and Hearing Sciences, University of North Carolina, Chapel Hill, NC. April.

Werner, L.A. 2008, Infants' perception of pitch and music. Ears Hearing & Beyond, Seattle, WA, April.

Werner, L.A. 2008. Development of auditory behavior. Widex Congress of Pediatric Audiology, Amsterdam, May.

Werner, L.A. 2009. Development of Auditory Behavior: Hearing Science. American Speech-Language-Hearing Science Association Annual Convention, November.

Werner, L.A. 2009. Development of auditory behavior. CRS Amplifon Course "Audiologic and genetic diagnosis of hearing disorders in infants." Milan, Italy, November.

**RECENT TALKS, PRESENTATIONS, PAPERS (continued)**

**Invited Presentations (continued)**

Werner, L.A. 2010. Development of Auditory Behavior. Diane Kewley-Port Lecture, Department of Speech and Hearing Sciences, Indiana University, April.

Werner, L.A. 2016. Factors that influence infants' ability to separate concurrent sounds. Auditory Development Conference, Boys Town National Research Hospital.

**Contributed Presentations**

Dasika, V.K., Werner, L.A., Nie, K., Norton, S.J., Rubinstein, J.T. 2007. Using an Observer-Based Psychoacoustic Procedure to measure psychometric functions for detection in electric hearing infants and toddlers. 11th International Conference on Cochlear Implants in Children, Charlotte, NC, April.

Werner, L.A. 2008. The duration of infants' and adults' temporal windows. Association for Research in Otolaryngology, Phoenix, February.

Jeon, H. & Werner, L.A. 2008. Infants' and adults' tone detection in modulated and unmodulated noise. American Auditory Society, Scottsdale, March.

Werner, L.A. 2008. Stimulus characteristics that promote infants' sound separation. International Conference for Infant Studies, Vancouver BC, April.

Werner, L.A., Jeon, H. & Hesson, J. 2009. Infants' detection and discrimination in modulated and unmodulated noise. Association for Research in Otolaryngology, Baltimore, February.

Garinis, A. & Werner, L.A. 2009. Controlling response bias on the detection performance of infants and adults. American Auditory Society, Scottsdale, March.

Van Boven, L. & Werner, L.A. 2009. The effect of melodic contour on auditory attention. American Auditory Society, Scottsdale, March.

Werner, L.A. 2009. Infants' vowel discrimination in modulated and unmodulated noise. Acoustical Society of America, San Antonio, November.

Faulkner, K.F., Tremblay, K.L., Rubinstein, J.T., Werner, L.A. and Nie, K. 2010. Auditory Training in Adult Cochlear Implant Listeners Using Spectrally-Rippled Noise Stimuli in an Adaptive, Single-Interval Paradigm. Association for Research in Otolaryngology, Anaheim, February.

Garinis, A., Werner, L. & Abdala, C. 2010. Relationship Between MOC Reflex Strength and Masked Thresholds. Association for Research in Otolaryngology, Anaheim, February.

**RECENT TALKS, PRESENTATIONS, PAPERS**

**Contributed Presentations (continued)**

Garinis, A.C. & Werner, L.A. 2010 The Effects of Temporal Uncertainty on Tone Detection in a 4-Tone Masker Complex. American Auditory Society, Scottsdale, March.

Lau, B.K. and Werner, L.A. 2011. Perception of the Pitch of the Missing Fundamental at 4 Months. Association for Research in Otolaryngology, Baltimore, February.

Werner, L.A., Lau, B.K, and Flad, A. 2012. Infants' ability to separate superimposed vowels Acoustical Society of America, Kansas City, November.

Horn, D., Werner, L., Rubinstein, J., and Won, JH. 2013. Spectral ripple discrimination in infants: Effect of ripple depth and envelope phase randomization. Association for Research in Otolaryngology, February.

Lau, BK. and Werner, LA 2013. Infants' ability to perceive the pitch of unresolved harmonics. Journal of the Acoustical Society of America, 133, 3286-3286.

Werner, L. 2014. Preliminary results of a two-interval forced-choice method for assessing infant hearing sensitivity. Journal of the Acoustical Society of America, 136, 2309.

Lau, B.K. and Werner, L.A. 2014. Infants ability to perceive changes in timbre. Journal of the Acoustical Society of America 135, 2163.

Cabrera, L. and Werner, L. 2015. The use of slow and fast temporal envelope cues in phonetic discrimination at 3 months of age. Midwinter Meeting of the Association for Research in Otolaryngology, February.

Oster, M. and Werner, L. 2015. Adult listener's detection thresholds for vowels and two-syllable words in different two-talker maskers. Journal of the Acoustical Society of America, 137, 2230.

Dudley, D., Dedhia, G., Drennan, W., Nie, K., Rubinstein, J., Werner, L., and Horn, D. (2016) Performance of School-age Children versus Adults on a Spectral Ripple Discrimination Task: Effects of Age and Cochlear Implant Use. Midwinter Meeting of the Association of Research in Otolaryngology.

Horn, D., Gerhards, G., and Werner, L.A. (2016) Temporal Modulation Cutoff Frequency in Normal Hearing Infants. Midwinter Meeting of the Association of Research in Otolaryngology.

Lalonde, K. and Werner, L. (2016) Audiovisual speech perception at varying levels of perceptual processing. Midwinter Meeting of the Association of Research in Otolaryngology.

Oster, M. and Werner, L. (2016) Infant and Adult Differences in the Detection of Vowels and Two-Syllable Words in Speech Maskers. Midwinter Meeting of the Association of Research in Otolaryngology.



**RECENT TALKS, PRESENTATIONS, PAPERS**  
**Contributed Presentations (continued)**

Werner, L. and Oster, M. (2016) Infants' ability to separate concurrent vowels based on voice characteristics. *Journal of the Acoustical Society of America*, 139, 1990.

Lalonde, K., & Werner, L. A. (2016). Infant auditory and audiovisual speech discrimination. *Journal of the Acoustical Society of America*, 140(4), 3447.

Oster, M.-M., & Werner, L. A. (2016). Comparison of 226 Hz and 1000 Hz tympanometry results in infants. *Journal of the Acoustical Society of America*, 140(4), 3264.

Horn, D., Meredith, M., Norton, S., Won, J. H., Rubinstein, J., & Werner, L. (2017) Spectral resolution and auditory language growth in prelingually-deaf infants with cochlear implants. Midwinter Meeting of the Association of Research in Otolaryngology.

Lau, B.K. & Werner, L. (2017) Infant sensitivity to fundamental frequency as a segregation cue for concurrent vowels. Midwinter Meeting of the Association of Research in Otolaryngology.

## **BIBLIOGRAPHY**

Holmes, D. L., Olsho, L. W., Mayzner, M. S. and Orawski, A. 1978. Foveal task effects on same-difference judgments in the visual periphery. *Bulletin of the Psychonomic Society*, 12, 311-313.

Holmes, D. L., Peper, R., Olsho, L. W. and Raney, D. E. 1978. Searching for multiple targets simultaneously: Is it really possible? *Perceptual and Motor Skills*, 46, 227-234.

Holmes, D. L., Olsho, L. W., Peper, R., Schulte, A. and Green, P. 1978. Use of constant target sets in visual search tasks. *Perceptual and Motor Skills*, 47, 803-808.

Fay, R. R. and Olsho, L. W. 1979. Discharge patterns of lagenar and saccular neurons of the goldfish eighth nerve: Displacement sensitivity and directional characteristics. *Comparative Biochemistry and Physiology*, 62A, 377-386.

Olsho, L. W., Schoon, C., Sakai, R., Sperduto, V. and Turpin, R. 1982. Preliminary data on infant frequency discrimination. *Journal of the Acoustical Society of America*, 71, 509-511.

Olsho, L. W., Schoon, C., Sakai, R., Sperduto, V. and Turpin, R. 1982. Auditory frequency discrimination in infancy. *Developmental Psychology*, 18, 721-726.

Olsho, L. W. 1984. Infant frequency discrimination as a function of frequency. *Infant Behavior and Development*, 7, 27-35.

Olsho, L. W., Harkins, S. W. and Lenhardt, M. L. 1985. Aging and the auditory system. In J.E. Birren and K. W. Schaie (Eds.), *Handbook of the Psychology of Aging* (Second Edition). New York: Van Nostrand Reinhold, 332-377.

Olsho, L. W. 1985. Infant auditory perception: Tonal masking. *Infant Behavior and Development*, 8, 371-384.

Olsho, L. W. 1986. Early development of human frequency resolution. In T. Van der Water, E. Rubel and R. Ruben (Eds.), *Biology of Change in Otolaryngology*. New York: Elsevier, 71-90.

Olsho, L. W., Koch, E. G. and Halpin, C. F. 1987. Level and age effects in infant frequency discrimination. *Journal of the Acoustical Society of America*, 82, 454-464.

Olsho, L. W., Koch, E. G., Halpin, C. F. and Carter, E. A. 1987. An observer-based psychoacoustic procedure for use with young infants. *Developmental Psychology*, 23, 627-640.

Olsho, L. W., Koch, E. G. and Carter, E. A. 1988. Nonsensory factors in infant frequency discrimination. *Infant Behavior and Development*, 11, 205-222.

Olsho, L. W., Koch, E. G., Carter, E. A., Halpin, C. F. and Spetner, N. B. 1988. Pure-tone sensitivity of human infants. *Journal of the Acoustical Society of America*, 84, 1316-1324.

**BIBLIOGRAPHY (continued)**

Spetner, N. B. and Olsho, L. W. 1990. Auditory frequency resolution in human infancy. *Child Development*, 61, 632-652.

Werner, L. A. and Gillenwater, J. M. 1990. Pure-tone sensitivity of 2- to 5-week-old infants. *Infant Behavior and Development*, 13, 355-375.

Werner, L. A. and Marean, G. C. 1991. Methods for estimating infant thresholds. *Journal of the Acoustical Society of America*, 90, 1867-1875.

Werner, L. A. and Bargones, J. Y. 1991. Sources of auditory masking in infants: Distraction effects. *Perception and Psychophysics*, 50, 405-412.

Werner, L. A. and Bargones, J. Y. 1992. Psychoacoustic development of human infants. In L. Lipsitt and C. Rovee-Collier (Eds.), *Advances in Infancy Research* (Vol. 7). Norwood, NJ: Ablex, 103-145.

Marean, G. C., Werner, L. A. and Kuhl, P. K. 1992. Vowel categorization in very young infants. *Developmental Psychology*, 28, 396-405.

Werner, L. A., Marean, G. C., Halpin, C. F., Spetner, N. B. and Gillenwater, J. M. 1992. Infant auditory temporal acuity: Gap detection. *Child Development*, 63, 260-272.

Werner, L. A. 1992. Interpreting developmental psychoacoustics. In L.A. Werner and E. W Rubel (Eds.), *Developmental psychoacoustics*. Washington, D.C.: American Psychological Association, 47-88.

Werner, L. A. and Rubel, E. W (Eds.). 1992. *Developmental psychoacoustics*. Washington, D.C.: American Psychological Association.

Werner, L. A., Folsom, R. C. and Mancl, L. R. 1993. The relationship between auditory brainstem response and behavioral thresholds in normal hearing infants and adults. *Hearing Research*, 68, 131-141.

Werner, L.A. and VandenBos, G.R. 1993. Developmental psychoacoustics: What infants and children hear. *Hospital and Community Psychiatry*, 44, 624-626.

Werner, L. A., Folsom, R. C. and Mancl, L. R. 1994. Relationship between auditory brainstem response latency and behavioral threshold in normal hearing infants and adults. *Hearing Research*, 77, 88-98.

Bargones, J.Y. and Werner, L.A. 1994. Adults listen selectively; infants do not. *Psychological Science*, 5, 170-174.

**BIBLIOGRAPHY (continued)**

Werner, L.A. 1995. Observer-based approaches to human infant psychoacoustics. In R. Dooling, R.R. Fay, G. Klump, and W. Stebbins (Eds). *Methods in Comparative Psychoacoustics*. Basel: Birkhäuser, 135-146.

Bargones, J.Y., Werner, L.A. and Marean, G.C. 1995. Infant psychometric functions for detection: Mechanisms of immature sensitivity. *Journal of the Acoustical Society of America*, 98, 99-111.

Werner, L. A. and Marean, G. C. 1996. *Human auditory development*. Westview Press.

Werner, L.A. 1996. The development of auditory behavior (or what the anatomists and physiologists have to explain). *Ear and Hearing*, 17, 438-446.

Werner, L.A., Mancl, L.R., and Folsom, R.C. 1996. Preliminary observations on the development of auditory sensitivity in infants with Down syndrome. *Ear and Hearing*, 17, 455-468.

Werner, L.A. and Ward, J. 1997. The effect of otitis media with effusion on infants' detection of sound. *Infant Behavior and Development*, 20, 279-283.

Werner, L.A. and Gray, L. 1998. Behavioral studies of hearing development. In E.W Rubel, A.N.Popper, and R.R. Fay (Eds.) *Development of the auditory system. Vol. 5, Springer handbook of auditory research*. New York: Springer-Verlag, 12-79.

Werner, L.A. 1998. Early development of the human auditory system. In R.A. Polin and W.W. Fox (Eds.), *Fetal and neonatal physiology*. (Second edition). Philadelphia: W.B. Saunders, 2255-2286.

Werner, L.A. 1999. Forward masking among infant and adult listeners. *Journal of the Acoustical Society of America*, 105, 2445-2453.

Werner, L.A. and Bernstein, I.L. 2001. Development of the auditory, gustatory, olfactory and somatosensory systems. In E.B. Goldstein (Ed.), *Blackwell's Handbook of Perception*. Oxford: Blackwell Publishers, 669-708.

Werner, L. A., and Boike, K. 2001. Infants' sensitivity to broadband noise. *Journal of the Acoustical Society of America*, 109, 2103-2111.

Werner, L. A., Folsom, R. C., Mancl, L. R., and Syapin, C. 2001. Human auditory brainstem response to temporal gaps in noise. *Journal of Speech, Language and Hearing Research*, 40, 737-750.

Leibold, L.J. and Werner, L.A. 2002. Relationship between intensity and reaction time in normal hearing infants and adults. *Ear and Hearing*, 23, 92-97.

Werner, L.A. 2002. Infant auditory capabilities. *Current Opinion in Otolaryngology*. 10, 398-402.

**BIBLIOGRAPHY (continued)**

Werner, L.A. 2003. Prenatal auditory stimulation: Truth, fiction or moot point? *Hearing Health*, 19, 11.

Murakami SL, Cunningham LL, Werner, LA, Bauer E, Pujol R, Raible DW, and Rubel EW. 2003. Developmental Differences in Susceptibility to Neomycin-Induced Hair Cell Death in the Lateral Line Neuromasts of Zebrafish (*Danio rerio*). *Hearing Research*. 186, 47-56.

Werner, L.A. 2004. Early development of the auditory system. In R.A. Polin and W.W. Fox (eds.) *Fetal and neonatal physiology* (Third Edition). Philadelphia: Saunders, 1803-1818.

Werner, L.A. and Leibold, L.J. 2005. Developmental ecological psychoacoustics. In J. Neuhoff (ed.), *Ecological Psychoacoustics*. San Diego: Elsevier, 192-219.

Saffran, J., Werker, J. and Werner, L.A. 2006. The infant's auditory world: Hearing, speech and the beginnings of language. In D. Kuhn & R.S. Siegler (ed.) *Handbook of Child Psychology, Vol. 2, Cognition, Perception and Language* (6<sup>th</sup> edition) New York: Wiley, 58-108.

Leibold, L. J. and Werner, L. A. 2006. The effect of masker-frequency variability on the detection performance of infants and adults. *Journal of the Acoustical Society of America*, 119, 3960-3970.

Werner, L.A. 2007. Issues in auditory development. *Journal of Communication Disorders*, 40, 275-283.

Werner, L.A. 2007. Human auditory development. R. Hoy, P. Dallos, and D. Oertel (Eds) *The Senses: A Comprehensive Reference, Volume 3 – Audition*. (pp. 871-894)

Leibold, L. J. and Werner, L. A. 2007. Infant auditory sensitivity to pure tones and frequency-modulated tones. *Infancy*, 12, 225-233.

Grieco-Calub, T.M., Litovsky, R.Y. and Werner, L.A. 2008. Using the Observer-Based Psychophysical Procedure to assess localization acuity in toddlers who use bilateral cochlear implants, *Otology & Neurotology*, 29, 235-239.

Dasika, V. K., Werner, L. A., Norton, S. J., Nie, K., and Rubinstein, J. T. 2009. Measuring sound detection and reaction time in infant and toddler cochlear-implant recipients using an observer-based procedure: A first report. *Ear and Hearing*, 30, 250-261.

Werner, L.A., Parrish, H.K., and Holmer, N. 2009. Effects of temporal uncertainty and temporal expectancy on infants' auditory sensitivity. *Journal of the Acoustical Society of America*, 125, 1040-1049.

**BIBLIOGRAPHY (continued)**

Werner, L.A. 2009. Perceptual development: Hearing. In E.B. Goldstein (Ed.), *Encyclopedia of Perception*. New York: Sage Publications.

Werner, L.A. 2010. Hearing: Development of Hearing. *Chicago Companion to the Child*. Chicago: University of Chicago Press.

Werner, L.A. and Leibold, L.J. 2011. Auditory development in normal-hearing children. In R. Sewald and A.M. Tharpe (Eds.), *Handbook of Pediatric Audiology*, New York: Sage Publications. (pp. 63-82)

Leibold, L.J. and Werner, L.A. 2012. Maturation of the auditory system. In K.L. Tremblay and R.F. Burkard (Eds.), *Translation perspectives in auditory neuroscience: Hearing Across the lifespan*. San Diego: Plural Publishing.

Werner, L.A., Levi, E.C., and Keefe, D.H. 2012. Ear-canal wideband acoustic transfer functions of adults and two- to nine-month-old infants. *Ear and Hearing*.

Lau, B.K. and Werner, L.A. 2012. Perception of missing fundamental pitch by 3- and 4-month-old human infants. *Journal of the Acoustical Society of America*, 132, 3874-3882.

Werner, L.A. 2012. Overview and issues in human auditory development. In Werner, L.A., Fay, R.R. and Popper, A.N. (Eds.) 2012. *Human auditory development*. New York: Springer. (pp. 1-18)

Werner, L.A., Fay, R.R. and Popper, A.N. (Eds.) 2012. *Human auditory development*. New York: Springer.

Werner, L.A. 2013. Infants' detection and discrimination of sounds in modulated maskers. *Journal of the Acoustical Society of America*, 133, 4156-4167.

Lau, B.K. and Werner, L.A. 2013. Infants' ability to perceive the pitch of unresolved harmonics *Proceedings of Meetings on Acoustics*, 19, 050034.

Lau, B.K. and Werner, L.A. 2014. Perception of the pitch of unresolved harmonics by 3- and 7-month-old human infants. *Journal of the Acoustical Society of America*. 136, 760-767.

Werner, L.A. 2017. Infants and children at the cocktail party. In Middlebrooks, J. C., Simon, J. Z., Popper, A. N., and Fay, R. R. (2016). *The Auditory System at the Cocktail Party*. Springer Nature, New York.

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