***Appendix A-3 Current Research and Training Grants in Speech and Hearing***

***University of North Carolina School of Medicine, 2011-2012***

***Advancing Social-Communication and Play (ASAP): An Intervention Program for Preschoolers with Autism.*** Institute of Education Sciences, Brian Boyd & Linda Watson, Co-PIs, Grace Baranek, & Elizabeth Crais, Investigators, 2011-2015. This multisite study is examining the efficacy of a school-based intervention program developed by the UNC-CH research team under an earlier award from the Institute of Education Sciences.

***Moderators of Outcomes of Children with Mild-Severe Hearing Loss.*** NIH-NIDCD, UNC Site Investigators: Melody Harrison and Patricia Roush in collaboration with Bruce Tomblin at the University of Iowa and Mary Pat Moeller at Boys’ Town National Research Hospital. This 5 year study employs a longitudinal design to investigate child, family and environmental factors that interact to predict the performance of children with hearing loss.

***Efficacy of a Parent-Mediated Intervention for One-Year-Olds at-Risk for Autism.*** Institute of Education Sciences, Linda Watson & Elizabeth Crais, Co-PIs, Grace Baranek, Steve Reznick, & Lauren Turner-Brown, Investigators, 2010-2014. The study assesses the efficacy of an early intervention to improve developmental outcomes and ameliorate symptom severity among one-year-olds at-risk for autism spectrum disorders.

***Susceptibility to and Release from Masking in Infancy and Childhood.*** NIH-NIDCD, Lori Leibold, PI, 2011-2016. The goal of this project is to identify and explain the factors responsible for the development of hearing in children with and without hearing loss.

***Dynamic Learning Maps.*** U.S. Department of Education, Karen Erickson, PI on Sub-Award with University of Kansas, 2010-2014. The project involves creating the new extended content standards for the common core curriculum, the alternate assessment, and professional development to support instruction and assessment for students with significant intellectual disabilities in 13 states.

*Division of Speech & Hearing Sciences*

***Social Communication and Symbolic Play Intervention for Preschoolers with Autism.*** Institute of Education Science, Linda Watson & Brian Boyd, Co-PIs, Elizabeth Crais & Grace Baranek, Investigators, 2007-2012. This study is developing a school-based intervention to improve joint attention and symbolic play skills of preschool children with autism.

***Stroke Telemedicine Access Recovery (STAR) Project.*** The Duke Endowment, Sharon Williams, PI, 2009 –2011. To establish a telemedicine stroke consultative service to improve access to stroke specialty care among the underserved population of patients admitted to a rural hospital in NC.

***The Influence of Hearing Loss on the Development of Auditory Behavior: Children’s Outcomes with Frequency Compression Hearing Aids.*** March of Dimes Foundation, Lori Leibold, PI, 2010-2012. The goal of this study is to determine short-term speech perception outcomes in the presence of competing background sounds for children with hearing impairment fitted with frequency-compression hearing aids.

***Project Converge II: A Phase II Steppingstones of Technology Innovations Award.*** U.S. Department of Education, Karen Erickson, PI, 2010 – 2011. A longitudinal, quasi-experimental investigation of the MEville to WEville Start-to-Finish® Literacy Starters Program with students with significant intellectual disabilities.

***Predicting Useful Speech in Children with Autism.*** NIH-NIDCD, Linda Watson, Site PI via subcontract to Vanderbilt University, Paul Yoder, PI, Grace Baranek, Investigator, 2009-2013. Goals of this project are to determine child factors and parent-child interaction factors in young, preverbal children with autism that account for variability in the development of useful speech over time.

***Effect of Signal-Temporal Uncertainty during Childhood.*** F31 NIH-NIDCD, Angela Bonino (Student Funded), Lori Leibold, Sponsor, 2009-2011. The goal of this training program is to acquire knowledge, laboratory experience, and data in support of a future independent research program in the area of auditory development.

***Web-Delivered Assessment for Stroke Survivors through Multimedia Technology.*** National Institutes of Health, Dorothy Strickland (PI) and Katarina Haley (Co-PI), 2009-2011. This project is designed to establish feasibility for an internet-mediated approach to quantify speech characteristics associated with left hemisphere stroke.

***A Tri-racial Examination of Family Caregivers of Stroke Survivors.*** North Carolina Translational and Clinical Sciences (TraCS) Large Pilot Grant Award, Sharon Williams, PI, 2009- 2010. To examine caregiving network structure, unmet need, perceptions of stroke survivor’s communicative limitations, and physical and emotional health of caregivers.

***Sensory Experiences in Children with Autism.*** NIH-NICHD, Grace Baranek, PI; Linda Watson, Aysenil Belger, Brian Boyd, Virginia Dickie, and Franc Donkers, Investigators. The goals of this longitudinal study are to characterize sensory symptoms in children with autism and DD.

***Life Interests and Values Cards: Supporting Self-Determination in People with Aphasia.*** North Carolina Translational and Clinical Sciences Institute. Katarina Haley PI, 2009-2010. This research aims to determine candidacy, reliability and validity for a new pictorially based tool for supporting the active involvement of people with aphasia in their own rehabilitation program.

***Big Words II: A Phase II  Steppingstones of Technology Innovations Award.*** U.S. Department of Education - Karen Erickson, PI, 2011-2014.  Complete development of software designed to teach students to decode words with multiple syllables related to science using a morphological approach, and conduct a large-scale randomized trial of its effectiveness.

***The Lower Ischemic Future Event Risk (LIFER) Study.*** Pfizer Foundation, Sharon Williams, Co-Investigator, 2010-2011. To organize and conduct ongoing stroke support groups in four counties with the highest rate of strokes in North Carolina.

***Parallel Forms Test Reliability for a New Speech Intelligibility Test.*** The University of North Carolina at Chapel Hill, Katarina Haley PI, 2008-2010. The purpose of this work is to determine parallel forms test reliability for a monosyllabic single word intelligibility test developed to estimate severity of segmental speech impairment in people with left hemisphere injury.

***Speech of Young Males with Fragile X Syndrome.*** NIH-NICHHD. David J. Zajac (PI), 2008-2013. The goal of this project is to investigate the factors that contribute to speech intelligibility in young males with Fragile X as compared to males with Down Syndrome and typically-developing children.

***Temporal Masking and Speech Recognition in the Aging Auditory System.*** NIH-NIDCD, John Grose, PI (Department of Otolaryngology). The specific aims of this research are 1) to examine the relationship between speech recognition in modulated noise and temporal masking performance as a function of age, controlling for audibility, and 2) to relate psychophysical and electrophysiological measures of forward masking as a function of age. This is a collaborative project with hearing science colleagues in Brazil.

***Complex Sound Analysis in Normal and Impaired Ears.*** NIH-NIDCD, John Grose, PI (Department of Otolaryngology). The purpose of this research is to better understand the role of temporal processing in perceptual organization, and how aging and impaired auditory systems can compromise this ability.

***Development and plasticity in Normal and Impaired Ears.*** NIH-NIDCD, Joseph W. Hall, PI (Department of Otolaryngology). The aim of this research is to gain a better understanding of the auditory processes that enable hearing in background noise, and the effect of early hearing loss on those processes.

***Spectro-Temporal Analysis in Normal and Impaired Ears.*** NIH-NIDCD, Joseph W. Hall, PI (Department of Otolaryngology). The goal of this research is to gain a better understanding of the mechanisms that are responsible for poor hearing in noise by listeners with sensorineural hearing loss.

***Acoustic Cues in Auditory Pattern Analysis.*** NIH-NIDCD, Emily Buss, PI (Department of Otolaryngology), PI, 2011-2016. The goal of this project is to identify and characterize the auditory processes that limit detection and discrimination of spectral cues for stimuli that vary in level for both normal- hearing and hearing-impaired listeners.

***Training and Leadership Grants, 2011-2012***

***Preparing Occupational Therapists and Speech-Language Pathologists for Working with Young Children with Autism and Their Families.*** U.S. Department of Education, Elizabeth R. Crais, Project Director, Grace Baranek & Linda Watson, Co-Directors. Interdisciplinary master’s preparation, 2009-2013.

***Preparing Speech-Language Pathologists and Occupational Therapists for Working in Teams:  Focus on High-Need Socioculturally Diverse Children.*** U.S. Department of Education, Elizabeth R. Crais, Project Director, Cara McComish & Ruth Humphry, Co-Directors. Interdisciplinary master’s preparation, 2012-2015.

***Preparation of Pediatric Audiologists and Speech-Language Pathologists to Serve Infants, Toddlers, and School-Age Children with Hearing Loss.*** U.S. Department of Education. Jackson Roush and Melody Harrison (Co-Directors) Interdisciplinary preparation for students in audiology (AuD) and speech-language pathology (MS), 2011-2014.

***Preparing Speech-Language Pathologists, Occupational Therapists, Early Childhood Special Educators, and Developmental Psychologists for Leadership Roles in Teaching, Research, and Service Focused on Young Children with Autism and Their Families.*** U.S. Department of Education, Elizabeth R. Crais, Project Director, Linda Watson & Grace Baranek, Co-Directors. Interdisciplinary doctoral preparation, 2008-2012.

***Leadership in Early Hearing Detection and Intervention and Leadership in Autism Assessment and Intervention.*** Health Resources and Services Administration, Maternal and Child Health Training Program for Pediatric Communication Disorders (T-83). Jackson Roush, Project Director; Faculty Collaborators: Melody Harrison, Angela Rosenberg, Linda Watson, Elizabeth R. Crais, 2008-2013.

***Preparing Professionals for Leadership Roles in Translational Research Focused on Children with Disabilities Including High Need Children.*** U.S. Department of Education. Elizabeth R. Crais (Director) & Harriet Able, Ph.D. (Co-Director), Interdisciplinary doctoral preparation, 2011-2014.

***Leadership Education in Neurodevelopmental Disorders.*** LEND Subaward expansion grant for pediatric audiology. Jackson Roush, Project Director, Faculty Collaborators:

Martha Mundy and Stephen Hooper, Carolina Institute for Developmental Disabilities, 2008-2011.

***Minnesota State Personnel Development Grants (SPDG) Project.*** Minnesota Department of Education Subcontract, Erickson PI, 2011. Develop a state-wide system of training supports addressing literacy instruction for beginning readers of all ages with a focus on students with the most significant disabilities.