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In This Issue:

2012 in Review..... 1

Rice Award..... 1

Investigator Highlight..... 2

Participation Opps 3

Awards and Honors in 2012 3

Just for Fun 4

2012 in Review

BNCD member **John Colombo** and Susan Carlson have reported results from the first five years of their 10-year clinical study of prenatal DHA supplementation KUDOS (Kansas University Docosahexaenoic Acid Outcomes Study). They found that supplementing pregnant women with 600 mg of DHA a day for their entire pregnancies, resulted in a significantly longer gestation and higher birth weight – both of which have implications for improving neurodevelopment outcomes as well as preventing hospitalizations for preterm birth and resulting medical cost savings. This would mean that a simple, inexpensive nutritional supplement could increase U.S. infants’ birth weight and gestational age closer to those found in other developed countries such as Norway and Australia. Whether supplementation can benefit the overall health and development of the children is the focus of the next five years of the study. The study is in press with the American Journal of Clinical Nutrition.

<http://www2.ku.edu/~lsi/news/kidrc/Fall%202012-Winter%202013/index.shtml#dha>



BNCD member **Hugh Catts’** research study looked into the prevalence of late-emerging poor readers- children who perform up to standards in their early school years, but begin to fall behind as they get older. The study found that 13.4% of children could be classified as late-emerging poor readers. Their “results indicate that although many children may experience difficulties in beginning reading, a sizable percentage of poor readers may not manifest their difficulties until fourth grade or later.” However, the reading difficulties did not emerge out of the blue; these children had a history of language and/or nonverbal cognitive deficits. This shows that children who have some early deficits, often have trouble when faced with the more challenging text encountered in middle elementary school.

Rice Award Continues Milestone Study of Language Development

Mabel Rice was awarded \$2.4 million by NIDCD to continue her longitudinal multiple study research project on language emergence, the world’s largest study to date, extending to years 11 -15. Since 2002, Rice has worked with colleagues at Curtin University in Perth, Australia and the University of Nebraska, as well as others, to study the language development of single and twin children in the western part of the country. Their goal is to pinpoint possible environmental, neurodevelopmental or genetic risk factors in children with Specific Language Impairment. In 2009, Rice was the first to report that a variant in a gene on Chromosome 6 - KIAA0319 – was a likely culprit in Specific Language Impairment. The new grant will allow the researchers to follow the twins into adolescence, as well as their family members, to determine contributions to language that are part of a family structure, inheritance pattern or other factors.

<http://lsi.ku.edu/news/lifeline/latefall-earlywinter2012/news.shtml>

Investigator Highlight



Kostas Kokkinakis is a new BNCD investigator in the Speech-Language and Hearing department at KU. His research centers on cochlear implants, prosthetic devices that can restore a sense of sound to a person who is deaf or hard of hearing. His lab is particularly interested in in-

vestigating ways to improve speech understanding by cochlear implant listeners in noisy environments-like a windy day. Dr. Kokkinakis says the aim of his lab is "to discover novel ways towards enhancing cochlear implant users' listening performance by eliciting [hearing mechanisms in both ears] through multi-microphone signal processing strategies that can be easily used in existing cochlear implant devices. By improving the performance of those devices in adverse settings, we can considerably improve the quality of life for a large number of cochlear implant listeners."

He has chosen to pursue avenues of research because he is "fascinated by cutting-edge research that has the potential of improving our understanding of the world and the quality of life for all of its citizens. My primary goal here at KU is to carry out translational research, whereby I intend to pursue ideas that can potentially turn basic science into applicable solutions."

Dr. Kokkinakis was recently selected for funding by the Frontiers Pilot and Collaborative Studies Funding Program to study, "Binaural speech perception with auditory prostheses."

See the last Research Participation Opportunity to participate in his current study.
Page 3.

BNCD Professor Honors

Nancy Brady was awarded an ASHA Fellowship. It is one of the highest honors the Association bestows. To be awarded Fellow, the nominee must have made outstanding contributions to the discipline of communication sciences and disorders.

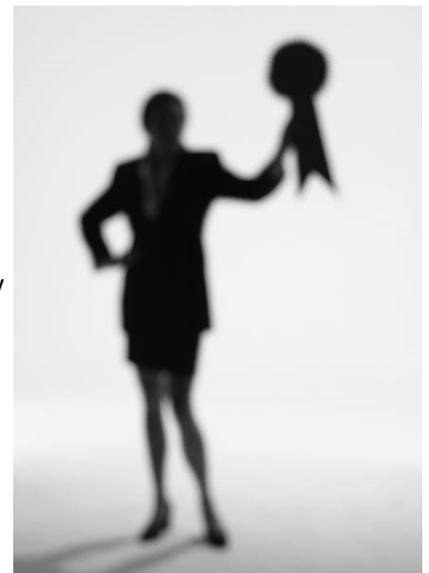
The key word for this award is "**outstanding**:" the nominee must truly stand out among one's peers. The term implies contributions that are **significant** and would be so regarded within and beyond one's community or state. While there are thousands of members who fulfill their professional responsibilities competently, only a small percentage have, by virtue of the quality and amount of their contributions, distinguished themselves sufficiently to warrant recognition.

The 2012 ASHA poster presentation by **Steven Barlow**, Lindsey Williamson, and Jingyan Wang titled, **Mapping Oral Feed Attainment Skills in Preterm Infants**, has been selected as a Meritorious Poster Submission.

The Meritorious Poster Submission recognition is for proposals judged by the Convention Program Committee to be exceptional. This poster is among those posters that received the highest ratings from Topic Committee reviewers across both submission categories of professional education and research. They received 1138 total poster submissions in 2012, and only 48 were selected for meritorious recognition.

Diane Loeb with Jayne Brandel were chosen for receiving the Language, Speech, and Hearing Services in Schools Editors Award. The editor's chose the article, **Program Intensity and Service Delivery Models in the Schools: SLP Survey Results**, as the "most meritorious single article appearing in the journal" over the past year.

Holly Storkel was awarded an grant from the federal government. The grant is a 5-year \$1.5 million preliminary clinical trial to study a book reading intervention to improve word learning by kindergarten children with Specific Language Impairment. See Research Participation Opportunities for study enrollment details.



Research Participation Opportunities

How does attention to people and objects impact language learning?

The purpose of this project is to learn about how infants' attention to social and nonsocial information relates to early language development. We want to learn whether infants' pay attention differently when they are watching people and objects and if these differences relate to how they learn language.

Age: 6- and 12-month-old infants

Time: One 60-minute visit to the KU Edwards Campus (126th & Quivira in Overland Park, KS).

Benefits: Families will receive \$15 for participating in this study.

Contact: KU Infant and Early Cognition Lab; baby-lab@ku.edu; (913)897-8590

Help us learn how toddler nutrition affects children's immediate cognitive performance.

The purpose of this study is to determine if a low glycemic beverage benefits short-term cognitive performance in children.

Age: 3-year-olds (between 33 and 39 months)

Time: Children will complete 3 visits over approximately 2 weeks. At the 1st visit, information about the study will be provided and children will complete two short tasks; the session will last about 45 minutes. During the 2nd and third visits, children will receive either a high or low glycemic drink, children will then participate in a series of short play sessions and complete several cognitive tasks; these sessions will last about 2.5 hours each. All sessions are completed at the KU Edwards Campus (126th & Quivira in Overland Park, KS).

Benefits: Your child's participation can help further our understanding of the affects of toddler nutrition on cognitive performance. Families will also receive up to \$75 for completing this study (\$15 at the first visit and \$30 each at the 2nd and 3rd visits).

Contact: KU Infant and Early Cognition Lab; baby-lab@ku.edu; (913)897-8590

Parents and their interactions with their developmentally disabled teenagers.

The purpose of this research project is to examine how parents and adolescents with developmental disabilities interact. Specifically, we are interested in your parenting style with your child during different types of routine activities.

Age: 11 to 18-year-olds with developmental disabilities (including autism or Down syndrome), language delays, and learning disabilities

Time: One-hour in-home visit scheduled at your convenience.

Benefits: \$20 gift card

Does your child have trouble learning new words?

The purpose of this study is to see the effect of interactive book reading on new vocabulary learning.

Age: Kindergarten

Time: About 2 sessions a week for 2-3 months. Visits will last about 15-30 minutes.

Benefits: You will be given a written report detailing your child's performance on all standardized clinical tests administered. Child may learn some of the 30 words taught.

Contact: KU Word Learning Lab; wrdlrng@ku.edu; (785)864-4428

Do you use a cochlear implant device to understand speech? Have you had it for at least 1 yr?

The purpose of this research project is to examine how to reduce noise and reverberation in cochlear implant devices in adults with one or two cochlear implants. This research might help design cochlear implants with better speech coding strategies for the future.

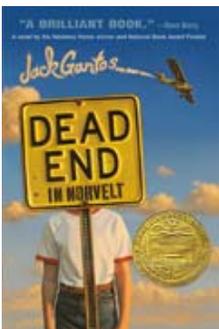
Age: Adults 21-75 with one or two cochlear implants

Time: 1 session lasting 4-5 hours

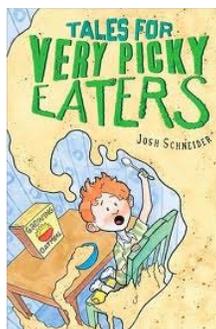
Benefits: \$200 plus travel reimbursement

Contact: Electrical Hearing Lab; kokkinak@ku.edu; (785)864-4835 or (785)864-4835

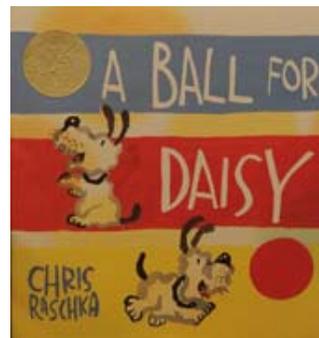
Award Winning Books From 2012



The Newbery Medal winner is *Dead End in Norvelt* by Jack Gantos; published by Farrar Straus Giroux



The Geisel Award winner is *Tales for Very Picky Eaters* written and illustrated by Josh Schneider; published by Clarion Books



The Caldecott Medal winner is *A Ball for Daisy*, written and illustrated by Chris Raschka; published by Schwartz & Wade Books

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About this Newsletter:

The BNCD newsletter is designed to keep you informed about the ongoing research projects that are being conducted by BNCD researchers at the University of Kansas. Participants who have been part of recent research projects conducted by BNCD researchers, parents who have expressed interest in participating in future research, and individuals from organizations such as schools and daycare centers that have an interest in BNCD studies will receive this newsletter from time to time to keep them up-to-date about the research activities at the BNCD. If you do not wish to receive future newsletters, please call or e-mail the BNCD to have your name removed from our list. Research at the BNCD is supported in part by grant number 5 P30 DC05803 from the National Institute on Deafness and other Communication Disorders (NIDCD) at the University of Kansas.

Just for Fun



What's the largest pencil in the world?

Answer:



Code:

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