

Allied Health Sciences Research Quarterly Newsletter

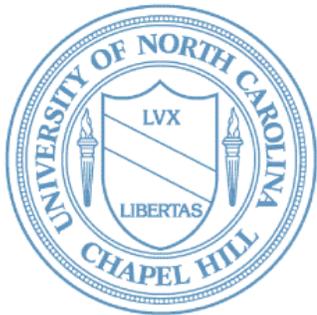
Spring 2011
Volume 1 Issue 3

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321 S. Columbia St. Chapel Hill, NC 27599-7120

January 1, 2011 - March 31, 2011
<http://www.alliedhealth.unc.edu/>

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*This newsletter can also be
downloaded at any time
from the following link:
<http://www.med.unc.edu/ahs/for-faculty-staff/research-support-services>*

Research News

Congratulations to Dr. Lori Leibold for Her New NIH R01 Grant!

Lori Leibold has been awarded a five-year NIH grant (R01-NIDCD) for a project entitled "Susceptibility to and Release from Masking in Infancy and Childhood." The long-term aim of this project is to identify and explain the factors responsible for the development of hearing in complex acoustic environments that contain multiple sources of sound. Previous research has consistently demonstrated that infants and children are more vulnerable to interference from competing background sounds than adults. These development effects in the ability to hear target sounds such as speech in the presence of competing background sounds can be substantial for children with normal hearing sensitivity, but are more pronounced for children with hearing impairment. Despite the fact that infants must learn about speech and language in the presence of competing sounds, we have a limited understanding of the factors that influence children's hearing in noise, and few studies have addressed these challenges.



The proposed experiments will characterize developmental effects in the ability to hear target sounds in the presence of competing background sounds and will identify acoustic-cue combinations that improve hearing in noise for both normal-hearing and hearing-impaired infants and children. These experiments rely on behavioral methods using well-characterized multi-tonal and noise stimuli as well as speech perception testing in the presence of competing noise or speech. The results of the proposed studies will provide much needed normative data and are expected to contribute to the formation of pediatric measures of complex auditory perception. There is also the potential these data will lead to improved strategies to optimize the delivery of auditory information for infants and children with hearing impairment.

From the Office of the Associate Dean: Santa Fe Consortium

Back in 2004, a small group of Deans of schools of allied health and health sciences with very specific, NIH type research agendas, decided to form a consortium in which they could learn from each other and from invited speakers. The first meeting of this consortium was held in Santa Fe (hence the name) in 2005 and has continued to meet every February, although no longer in Santa Fe. By design, the membership of this group has remained small (15 schools), with membership open only to Deans and only by invitation. Some of the charter members of this consortium include the School of Health Related Professions at *U of Alabama, Birmingham*, School of Health Professions at *U Missouri*, College of Health Professions at *Temple U*, College of Allied Health at the *U of Oklahoma*, School of Health & Rehabilitation Sciences at *U of Pittsburgh*, College of Applied Health Sciences at *U Illinois at Chicago*, and, of course, the Allied Health Sciences department at University of North Carolina.



As your “Dean”, I have had the good fortune to represent our programs in this consortium, and to learn from the excellent speakers who are invited to join us for a day and a half of presentation and informal interactions. Some of you will recall that I was able to bring back advance information about the NIH stimulus funds after I returned from the Santa Fe meeting in 2009, where our guest was Gregory Farber, Health Science Administrator at the NIH/NCRR (since incorporated into the new National Center for Advancing Translational Research -NCATS). Other speakers in past years have included research officers from the IOM (2005), DOD/TATRC (2006) NIDRR (2007), the Veterans’ Administration (2008), and, in 2010, the President of the Rhoades Group, a beltway lobbying firm specializing in ‘earmarks’ for health affairs schools.

This year, our primary speaker was Ann Bonham, the Chief Scientific Officer at the AAMC. Among other topics, Ann noted that the current NIH budget (\$18 billion) represents less actual buying power than they had in 2003; while the number of applications they receive has continued to increase (90,000 last year). Thus, the AAMC is seeing the need for more collaboration with private industry, even as medical schools are all implementing stricter Conflict of Interest Policies. The issues surrounding COI and the growing importance of industry partnerships in health research will be a major focus of AAMC discussion in the coming year.

In terms of NIH priorities, the AAMC is advocating for an increased focus on quality improvement, community engagement, and implementation research, with more emphasis on pragmatic clinical trials. On a related note, she reported that a recent poll of AAMC members regarding their support and involvement in Comparative Effectiveness Research indicate broad support, but also that most of the CER research currently funded focuses on just the *efficacy* of specific treatments, in controlled experimental settings, rather than the ultimate test of actual *effectiveness* when implemented on a larger scale, in uncontrolled, real-world clinical settings.

Because we were meeting in Charleston this year, we also invited the director of the South Carolina Research Authority (<http://www.scra.org>) to talk with us about their structure, and the range of research they conduct with support from a variety of sources, especially the Dept. of Defense. We talked at some length about potential opportunities for collaborative projects in the area of rehabilitation that might involve the SCRA and several of the Santa Fe Consortium

member schools. (I shared with Grace my thought that the SCRA is very much like North Carolina's own Research Triangle Institute (<http://www.rti.org>). We may want to explore potential opportunities to extend our own rehabilitation research through a relationship with RTI in the future.)

In addition to our annual meetings, the SF Consortium is developing a bench-marking instrument that will allow our member schools to report and compare quantitative aspects of our research productivity, and how this relates to teaching loads, etc. Please contact me if you would like to know more about the consortium, our past meetings, and/or this benchmarking effort. And, stay tuned for my report following next year's meeting (February, 2012).

From the Office of the Associate Chair

This quarter has been a busy one! Grant submissions, both internal and external, have been on the rise. I especially want to congratulate Dr. Lori Leibold and her team on a newly funded 5-year R01 from the National Institute on Deafness and other Communication Disorders (NIDCD) - quite an impressive accomplishment! Other highlights have included the international scholarship of Professors Cutchin, Dickie, Coppola, Wakeford and Womack; a distinguished alumni award from San Jose State, College of Applied Sciences and Arts, to Dr. Ruth Humphry; and a North Carolina Association of County Commissioners' recognition of the outstanding work of the Community Health and Mobility Partnership (CHAMP) project, headed by Dr. Vicki Mercer.



Our office launched the new DAHS Research Forum – a venue to bring together researchers across our interdisciplinary divisions to discuss research mechanisms, methods, and internal support systems. Two panels of our own successfully funded researchers with grants from the National Institutes of Health and the US Department of Education were particularly impressive. I thank all of you who have participated in these events and look forward to seeing more of you there. The Research Advisory Committee (RAC) has been active in planning these forums, as well as in designing and launching a faculty survey to better understand the strengths and needs of our department – we anticipate results to be available in the next issue of this newsletter.

I have also been serving as your representative to the research committee for the Association of Schools of Allied Health Professions' (ASAHP), which has been developing a proposal for a new seed grant mechanism for member institutions. ASAHP is committed to building a body of knowledge that guides clinical practices in health care, acknowledging that researchers are the eyes behind this scientific vision. We will be discussing potential ideas for interdisciplinary projects that are consistent with health care priorities in our communities.

I am proud of the many accomplishments of our faculty across all the divisions, and thank you all for your contributions to our scholarship and research vision.

New DPT to PHD Track Available for Students

The Division of Physical Therapy and the Interdisciplinary PhD Program in Human Movement Science (HMSC) now offer a DPT/PhD track. The purpose of this track is to nurture and encourage the "best and brightest" from the entry-level Doctor of Physical Therapy (DPT)

program to pursue the PhD, thereby increasing the number of highly qualified physical therapists who apply to the PhD program. Students enrolled in the DPT program who are interested in the DPT/PhD track are encouraged to get involved in faculty research projects and to take one or two Human Movement Science classes during their 3rd year in the DPT program. These classes meet elective requirements for the DPT program, and also fulfill some of the requirements for the PhD in HMSC. Students on the DPT/PhD track graduate with their peers with a DPT degree. They may apply to the PhD program during the 3rd (last) year in the DPT program. Although students on the DPT/PhD track are not guaranteed admission to the PhD program, they are expected to be very strong candidates for admission. Once accepted, and given the classes, research experiences, and mentoring they have received as DPT students, they should be on the “fast track” as PhD students.

Further information can be found at the following web site:

<http://www.med.unc.edu/ahs/physical>

Excellence in Scholarship

Occupational Science Collaborations in Scandinavia

Dr. Malcolm Cutchin has been a visiting scholar with several Scandinavian Institutions, including the Karolinska Institutet and the University of Southern Denmark’s Health, Man, and Society unit in the Institute of Public Health over the past several years. Most recently, he has been involved with Dr. Karen la Cour’s Research Initiative for Activity Studies where he has conducted seminars, advised doctoral students, and consulted on research projects. He has also met with faculty and lectured at several OT programs at University Colleges across Denmark.

Dr. Cutchin has been invited to participate in the Scientific Advisory Board for the Centre for Ageing and Supportive Environments at Lund University in Sweden. Malcolm looks forward to his future work with his Scandinavian colleagues and sees these international connections as shaping his thinking and research in as well as being able to contribute to theirs.

Also, in February, four faculty members from the Division of Occupational Science and Occupational Therapy traveled to Stockholm, Sweden to participate in collaborative work focused on pedagogical research with faculty from the Karolinska Institute (KI). Dr. Virginia Dickie, together with Professors Sue Coppola, Linn Wakeford and Jenny Womack attended a two-day faculty workshop and participated in meetings with occupational therapy faculty and educational researchers from KI. Plans were outlined for the pursuit of a memorandum of understanding between the two faculties to conduct joint pedagogical research on the development of therapeutic relationships. Following the meeting, Wakeford (as PI) submitted a URC grant proposal to begin collecting pilot data with practitioners and students in North Carolina. The pilot study will be replicated in Sweden and future funding sought to further the collaboration.



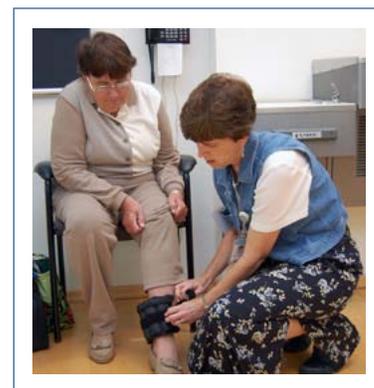
Route 66 Literacy Launches

Route 66 Literacy is currently operated as a partnership between [The Center for Literacy and Disability Studies](#) (CLDS) of the University of North Carolina at Chapel Hill and Benetech. Leading researchers at the CLDS provide the service's content and instructional information, while Benetech supplies the technical, managerial and marketing expertise, as well as the on-going maintenance of the site. Route 66 Literacy is an online, instructional literacy program for adolescent and adult beginning readers. Based on research-proven pedagogical methods, Route 66 pairs beginning readers side-by-side with more literate teacher-tutors who guide the interaction with the computer. More information about the project can be found here: <http://about.route66literacy.org/>

CHAMP Receives Outstanding County Program Award

The Community Health and Mobility Partnership (CHAMP), an initiative to prevent falls spearheaded by Dr. Vicki Mercer, has won a 2010 Outstanding County Program Award from the North Carolina Association of County Commissioners.

CHAMP is a two-year community project funded by the Baxter International Foundation and McDowell County. CHAMP is designed to improve balance and mobility and reduce the incidence of falls and fall-related injuries for older adults in McDowell County and surrounding Burke, Mitchell, and Rutherford counties. Dr. Mercer, CHAMP's principal investigator, has implemented the project with teams of physical therapy and nursing students and faculty from Western Carolina University, McDowell Technical Community College, Caldwell Community College, Appalachian State University,



UNC Chapel Hill Associate Professor of Physical Therapy Dr. Vicki Mercer works to correctly adjust an ankle cuff weight

Elon University, UNC Greensboro, and UNC Chapel Hill. Teams conduct community screening events throughout the area to identify individuals at risk for falls and provide individualized fall prevention recommendations to participants.

For more information about CHAMP, please contact Dr. Mercer at (919) 843-8642 or vmerc@med.unc.edu.

UNC Researchers Unravel Clues, Develop Interventions for Autism

In conjunction with World Autism Day, April 2, UNC Health Care published an article about new treatments and interventions currently being explored by researchers at the UNC School of Medicine. The article included information on the assessment tools developed by the Program in Early Autism Research, Leadership and Service (PEARLS).

[Click here](#) to read the full story.

Allied Health Sciences Improves High Rankings

In addition to already highly ranked programs in Allied Health Sciences, which include Audiology (6th), Occupational Therapy (5th), Physical Therapy (11th), and Speech Language Pathology (18th) - all ranked in 2008 - the UNC Chapel Hill Division of Rehabilitation Counseling and Psychology has made a tremendous leap closer to the top of the *U.S. News and World Report* rankings. The division was ranked 23 out of the 96 RCP programs reviewed in the magazine's 2012 "America's Best Graduate Schools" issue.



"What a testament to all the excellent work and effort being given by RCP faculty and staff who continue to improve our national visibility during such tough times," said division director Charles Bernacchio. "We have really shown our competitive Carolina spirit!"

Workshops and Seminars

DAHS Research Forums

We would like to extend our thanks to the participants and presenters of our monthly research forums sponsored by the Allied Health Sciences Office of Research.

Our first forum in January played host to the NC TraCS Research Navigators. The forum addressed questions beyond the "basic" TraCS orientation, with the Navigators responding to specific questions and concerns that have been generated by our faculty over the past several years. In addition to covering issues such as the DAHS record of success with pilot grants, nuances of definitions of "translational", review criteria/process, mechanisms for support beyond the pilot grant program, building academic-community partnerships, and effective use of core services to name a few, this forum gave the Navigators an opportunity to increase awareness of our faculty's research priorities and specifically to entertain questions relevant to Allied Health. It was a unique opportunity to have all of the research navigators (Drs. Sue Tolleson-Rinehart, Thomas Egan, Richard Davis & Paul Farel) and the central coordinator (Karen Demby) present for the same workshop for one department. This forum has led to more collaborations with NC TraCS and more successful applications by our faculty - congrats to all!

Our second forum featured a panel of three successful researchers, Drs. Linda Watson, Karen Erickson, and Brian Boyd, who discussed their experiences and research career trajectories for successful federal funding through the Institute for Educational Sciences. They shared their experience on how they got to where they are now and shared insights into one Allied Health Sciences' major federal funding agencies. Dr. Michelle Flippen, post-doc, chaired the question/answer discussion.

Two additional forums were planned for April/May. These forums will then resume again in the Fall semester. Thank you again to our presenters and participants for making these forums a rousing success!

Agency Updates

NIMH Relations Between Impact Scores and Criterion Scores

The NIH has published some information on how they use data to examine the impact of new policies. Among the changes NIH implemented under its Enhancing Peer Review initiative was the assignment of scores to each of five individual criteria for research grant applications: significance, investigator(s), innovation, approach, and environment. The purpose of these criterion scores is to provide additional information to the applicant, and information on how this data is used can be found at the following link:

<http://nexus.od.nih.gov/all/2011/03/08/overall-impact-and-criterion-scores/>

NIH R01 and Biosketch Announcements

The NIH has released a new R01 announcement entitled "Reducing Health Disparities Among Minority and Underserved Children". Details can be found at the following link:

<http://www07.grants.gov/search/search.do?&mode=VIEW&oppld=66215>

Beginning with applications submitted for the May 25, 2011 and subsequent receipt dates, the biosketch instructions will include a modification of the personal statement section to remind applicants that they can provide a description of personal issues that may have reduced productivity. The revised instructions for the personal statement are shown below and should appear in applications toward the end of March.

Personal statement: Briefly describe why your experience and qualifications make you particularly well-suited for your role (e.g., PD/PI, mentor) in the project that is the subject of the application. Within this section you may, if you choose, briefly describe factors such as family care responsibilities, illness, disability, and active duty military service that may have affected your scientific advancement or productivity. Details can be found at the following link: <http://nexus.od.nih.gov/all/2011/02/17/biosketch-change/>

Grants Submitted (Jan. 2011 – Mar. 2011)

Impaired Perception of Gait Asymmetry is Due to Sensorimotor Deficits and Influences Fall Risk Post-Stroke

Clint Wutzke, American Heart Association

Connect to Fitness CP: A Web - Supported Community Fitness Program for Adults with Cerebral Palsy

Deborah Thorpe, National Institute on Disability and Rehabilitation Research

State Personnel Development Grant - Individual with Disabilities Education Act
Karen Erickson, Minnesota Department of Education

Aquatic Exercise: Improving Fitness & Function in Cerebral Palsy

Deborah Thorpe, National Institutes of Health (via Drexel University)

Impact of Adapted Responsive Teaching on the Responsiveness of Parents to Toddlers at-Risk for Autism

Jessica Cobble, Autism Speaks

2011 Graduate Student Grant Competition

Jessica Dykstra, Organization of Autism Research

Teaching Communication Skills to Preschoolers with Autism: Video vs. Live Modeling in the Classroom

Kaitlyn Wilson, Organization of Autism Research

Error Based Learning for Restoring Gait Symmetry Post-Stroke

Michael Lewek, National Institutes of Health

Exceptional Children Occupational Therapist

Laura Holahan, North Carolina Department of Public Instruction

Special Education-Literacy Institute for Teachers of Students with Significant Disabilities

Karen Erickson, North Carolina Department of Public Instruction

Exceptional Children Physical Therapist

Laurie Ray, North Carolina Department of Public Instruction

Psychiatric Disabilities & Employment Learning Community

Charles Bernacchio, US Dept. of Education (via Syracuse University)

New Grants Awarded (Jan. 2011 – Mar. 2011)

March 2011 - February 2016 (PI: Lori Leibold) *Susceptibility to and Release from Masking in Infancy and Childhood*, National Institutes of Health (\$1,835,792)

Publications

Burker, E., & Kazukauskas, K. (2010). The Code of Ethics for Rehabilitation Educators and Counselors: A Call for Evidence-Based Practice , Rehabilitation Education, 3-4(24), 101-112.

Patten, E. & Watson, L. R. (2011). Interventions targeting attention in young children with autism. American Journal of Speech-Language Pathology, 20, 60-69.

Leibold, L.J. & Neff, D.L. (2011). Masking by a remote-frequency noise band in children and adults. Ear and Hearing. doi: 10.1097/AUD.0b013e31820e5074

Honors

Dr. Ruth Humphry has recently been recognized as a Distinguished Alumni of the College of Applied Sciences and Arts at San Jose State for 2011. Congratulations, Ruth!

Contacts

Please contact Wesley Winkelman, Contracts and Grants Manager, for any items you would like to see published in the next newsletter, feedback, or any questions or concerns.

He can be reached at wwinkelm@med.unc.edu or by phone at 919-966-9471.