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Research Newsletter

Spring 2017





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A Letter from Dr. Brian Boyd, Associate Chair for Research



Dr. Brian Boyd

To members of the department, alumni, donors, colleagues at UNC-Chapel Hill and at other research institutions: Hello, and thank you!

I am honored to have been chosen for this position of leadership within a department filled with so many outstanding and hardworking faculty and staff. In this role, I look forward to engaging researchers within the Department of Allied Health Sciences, and colleagues across the University to find innovative ways to further develop our department's research capacity. My overarching goal is to support and to grow the wealth of talent and expertise already found within the DAHS.

During my first few months on the job, I've begun an outreach campaign to those within DAHS and across the University to form and strengthen relationships vital to our continued growth. I will continue to meet with members of the University's research administration to discuss our department's research and to explore ways to enhance and grow our research portfolio.

In the past two years, federal and state governments, businesses and industries, professional associations, foundations and nonprofits have awarded the department more than \$4.7 million. This is a testament to the good work for which we have become known. Those featured in this issue of the newsletter are just a few of the many success stories we could tell. I believe that the work of researchers within the DAHS improves the quality of care that clients receive as well as their overall quality of life.

Through the years, I've been fortunate to work alongside the outstanding research faculty and staff here at Carolina. In January, at my first Research Advisory Committee (RAC) meeting as associate chair for research, it was a humbling moment when I found myself leading the committee on which I have served for the past seven years. Since January, the RAC and the Office of Research team have worked to define the metrics that will allow us to more fully understand the types of supports that are needed by DAHS researchers to create winning proposals to secure grant funding. Together with our development director and communications director, we are ensuring that all essential supports are on board to find good funding matches that meet with the multi-faceted research foci of our research team.

Thank you to all of those who have made the transition to my tenure as associate chair a smooth one. I'm excited to continue working with this team to ensure great progress within our shared fields of research and to bolster our faculty and students to further academic and professional success.

Brian

ALLIED HEALTH SCIENCES RESEARCH ADVISORY COMMITTEE

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-Thanks to Stella Reneke, a philosophy/journalism major, for her help with this issue!

From Dr. Stephen R. Hooper, Associate Dean and Chair of the DAHS

I am proud to announce the new Associate Chair for Research for the Department of Allied Health Sciences (DAHS), Dr. Brian Boyd.

An associate professor in the Division of Occupational Science and Occupational Therapy, Dr. Boyd has a strong history of successful research funding from the National Institutes of Health (including the National Institute of Child Health and Human Development), from the U.S. Department of Education, and from the Health Resources & Services Administration, in addition to having received a number of university grant awards. His research centers on children with autism, and he recently received national recognition for his outstanding research from the Council for Exceptional Children.

Since 2009, when Brian joined us as a post-doctoral fellow, the value of his



Dr. Stephen R. Hooper

contributions has been felt inside and outside DAHS. His research collaborations include those with department researchers across our divisions and those formed through connections as an investigator at UNC's Carolina Institute for Developmental Disabilities, as a fellow at UNC's Frank Porter Graham Child Development Institute, and as a colleague at UNC's School of Education. In addition to his extensive experience with various funding mechanisms and university collaborations that are key to the success of our department, Dr. Boyd also brings to his new role experience as a long-standing member (since 2010) of the department's Research Advisory Committee. He has been teaching for us since 2009, growing the research capacity of our students through

My colleagues in the DAHS Office of Research, the members of the Research Advisory Committee, and I look forward to continuing the momentum in DAHS research that Dr. Grace Baranek, former Associate Chair for Research, initiated, implemented, and supported during her years of service. I have confidence in Dr. Boyd's guidance for the growth and longevity of the department's research portfolio and look forward to our continued efforts to promote research collaborations within our department, with other university partners and with those we serve in the community.

such courses as Research Methods, Grant Writing and a Research Seminar in Occupational Science.

Dr. Deborah Thorpe Honored as Health Care Hero by *Triangle Business Journal*

The *Triangle Business Journal* recognized Deborah Thorpe, PT, PhD, as allied health professional of the year during its annual Health Care Heroes celebration, held on March 16, 2017 at the Prestonwood Country Club in Cary, North Carolina. Thorpe's work has changed the lives of children and adults through her work at University Physical Therapy (UPT), a clinical site at the Orange County Sportsplex, operated by the UNC School of Medicine Department of Allied Health Sciences.

At UPT, Thorpe's clinical practice focuses on neurological rehabilitation in individuals with developmental disabilities. She has particular expertise in aquatic therapy. Many of her patients have age-related changes in gait and balance secondary to neurological or orthopedic disorders. Her research focuses on prevention of secondary conditions and improving fitness and wellness across the lifespan for individuals with developmental disabilities, specifically individuals with cerebral palsy which guides her work in the clinic.

Thorpe's motivation for her work and research in physical therapy is driven by her desire to create and enhance strong networks of support across the lifespan for her patients.





Dr. Deborah Thorpe

Dr. Wanqing Zhang Receives University Junior Faculty Development Award

Dr. Wanqing Zhang, research methodologist and assistant professor in the Department of Allied Health Sciences, has received a Junior Faculty Development Award in the amount of \$7,500 from UNC-Chapel Hill. The award came from the University's Committee on Faculty Research and Scholarly Leaves. Zhang will use the funds for a project titled "Health Care Utilization by Children with Autism: A Comparison at the U.S. National and N.C. State levels." The funds must be spent during the period beginning January 1, 2017 and ending December 31, 2017. Zhang received her PhD and MEd from the University of Nebraska-Lincoln, and her MD from Shanghai Medical University.



Nancy Quick, PhD, credits the diversity of mentored experiences at UNC-Chapel Hill with sparking her interest in research after enrolling as PhD student in the Division of Speech and Hearing Sciences four years ago. Initially, she applied her expertise in hearing loss as a research assistant under Melody Harrison, PhD, co-investigator of a study titled "Outcomes of School-Age Children who are Hard of Hearing." Following the study, Quick connected with Karen Erickson, PhD, at the Center for Literacy and Disability Studies (CLDS), located in the Department of Allied Health Sciences, where she learned more about literacy and children with significant disabilities.



Nancy Quick, PhD

"The beauty of working with the Center was they took my area of expertise and ended up folding it into the work they were doing," Quick said. She completed her PhD studies and dissertation in spring 2017.

While at the CLDS, Quick worked as a research assistant for a reading and spelling intervention that targeted struggling adolescent readers. Quick developed an assessment to evaluate their progress in spelling, which then led to a dissertation focused on spelling development among children with hearing loss. "I wanted to be part of contributing to the field and addressing questions we had about language and literacy development for children with disabilities," Quick said. "As a result of that, I am now really passionate about figuring out ways to support language and literacy development."

Quick's dissertation analyzed spelling errors made by children with hearing loss in order to better understand their language strengths and weaknesses underpinning their spelling. She found that students with hearing loss apply different language strategies to spell unfamiliar words compared to their peers who are able to hear. These differing strategies suggest that children with hearing loss who struggle with spelling might require a different type of spelling intervention than children with typical hearing.

As part of Quick's research, she also recruited children with cochlear implants to analyze their spelling patterns. Children with cochlear implants used similar spelling strategies to children hard of hearing; this suggests that regardless of severity of hearing loss, all children who experience hearing loss use similar language strategies to spell unfamiliar words.

Ultimately, Quick hopes her research will inform the development of effective interventions in spelling for children with hearing loss that focus on identified areas of linguistic weakness. Long-term implications include enabling speech-language pathologists to identify spelling profiles of all students who struggle with spelling, and then to provide interventions that focus on identified areas of weakness.

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NEW GRANTS AWARDED (AUGUST 1, 2016-APRIL 30, 2017)

TITLE	TEAM	AWARD AMOUNT	SPONSOR
Quality Improvement for Sweat Testing Infants (Year 2)	LeGrys, Vicky	\$13,715	Ann Robert H. Lurie Children's Hospital of Chicago
Evaluating Patient/ Parent Perspectives on Undiagnosed Disease and on Genome Sequencing within the UDN	Hooper, Stephen	\$37,107	Duke University; National Institutes of Health
Health Care Use for Musculoskeletal Disorders in Adults with Cerebral Palsy: An Analysis of Medicare Data (CoHSTAR)	Thorpe, Debbie; Grace Stehlin	\$25,000	Foundation for Physical Therapy; University of Pittsburg
Novel Platform for rapid exploration of robotic ankle exoskeleton control strategies to augment healthy or restore poststroke locomotion	Lewek, Mike	\$9.923	NC State University; National Institutes of Health
Hearing Tests for FDA Hearing, Aging and Direct-to-Consumer Television Ads	McKenna, Nancy; Sjoblad, Stephanie; Griffin, Phillip; Williams, Sharon	\$56.400	Research Triangle Institute (RTI)
Tar Heel Shared Reader	Erickson, Karen ; Bishop, Gary; Greer, Claire; Hatch, Penny; Ryan, Skip	\$474.592	U.S. Department of Education
Kansas DLM (2nd Year)	Erickson, Karen; Greer, Claire; Ryan, Skip	\$158,649	University of Kansas Center for Research, Inc. (KCUR); U.S. Department of Education

Continued from page three

Quick indicated that spelling impacts other areas of written composition for school-aged children. Poor spelling skills can lead to less organized written compositions, difficulty with word selection, and grammar. Quick will use a travel award from the National Institutes of Health to present her dissertation at the Symposium on Research in Child Language Disorders in Madison, Wisconsin, this summer.

Her dissertation work is funded, in part, by the Paul Hardin Dissertation Fellowship from the Royster Society of Fellows and by the Council of Academic Programs in Communication Sciences and Disorders Plural Research Award.

Quick has also developed an interest in children who have significant disabilities in addition to hearing loss. Professionals with expertise in hearing loss are not typically included on educational teams for children with complex needs. Those educational professionals who work in severe disabilities might not be as informed about a co-morbidity such as hearing loss. "It looks very much like these children with complex needs who have hearing loss are underidentified and underserved." Quick said.

She credits her advisors, Harrison and Erickson, with mentorship that allowed her to complete substantial research projects to bring informative work the forefront of the field of children with hearing loss and children with significant disabilities. For more on Quick's research, visit www.med.unc.edu/ahs/research