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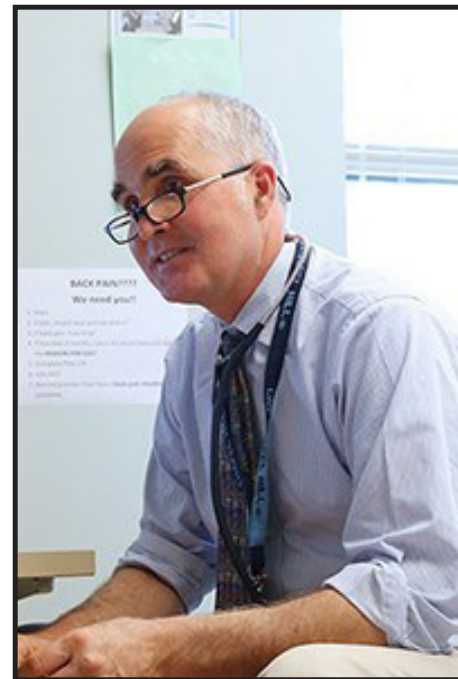
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Chelminski: New study aims to reduce opioid use while managing chronic pain

A new \$9 million study, led by RTI International, aims to provide strategies for reducing opioid use among patients who are not benefiting from it while ensuring access to those who are benefiting. RTI will collaborate with the Mid-South Clinical Data Research Network, which is centered at Vanderbilt University Medical Center and includes Duke University Health System and the University of North Carolina at Chapel Hill.

A principal investigator of the study is UNC's Dr. Paul Chelminski, a professor at the Department of Allied Health Sciences with extensive experience studying best practices of prescribing and managing long-term opioid use.

Nearly one-third of Americans suffer from chronic noncancer pain, a condition often treated with opioids. The effectiveness of this chronic opioid therapy is currently unclear and exposes individuals to potential risks, including opioid abuse after therapy.



Paul Chelminski, MD

"This project will help patients better understand the risks, benefits and uncertainties associated with opioid use, which is needed for informed consent and is critical given the status of the opioid epidemic," said Lauren McCormack, PhD, Vice President of RTI's Public Health Research Division who will lead the study.

Continued on page 5

Department of Allied Health Sciences announces winners of the 2017 Student Research Ambassador Award

Five PhD students from the UNC School of Medicine Department of Allied Health Sciences (DAHS) have received the 2017 Student Research Ambassador Award, awarded by the DAHS Office of Research. This prestigious travel award recognizes students who showcase outstanding research in the larger academic and professional community.

Participation at high-visibility research conferences or at well-regarded professional conferences, through presentation of research posters or oral presentations, provides students with opportunities to advance their research and to network with other students and faculty. The award process was competitive, as DAHS students submitted outstanding entries. The applications were scored by a DAHS review committee, led by chair and assistant professor Eniko Rak, from the Division of Clinical Rehabilitation and Mental Health Counseling. The DAHS Research Advisory Committee and Associate Chair for Research, Brian Boyd, oversaw the administration of the award.

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PhD student finds her voice in the Division of Speech and Hearing Sciences

In June 2013, Jenni Shafer was kicked in the head by a horse. The four years since that accident have been arduous, yet rewarding; they have brought her to where she is today, as a PhD student in the Division of Speech and Hearing Sciences.

Jenni has always had a passion for working with people with intellectual and developmental disabilities. It is the reason she began volunteering at the North Carolina Therapeutic Riding Center in 2004. The facility provides hands-on therapy to children and adults with physical, emotional, and mental challenges through equine-assisted activities and therapies. In 2006, she became a PATH certified instructor. Jenni said her experiences at the Center directly influenced her decision to apply to the Department of Allied Health Sciences' Clinical Rehabilitation and Mental Health Counseling program in 2007.

"When I found the program I thought 'Wow, this is great. This is perfect. I can work with people with disabilities,'" she said.



PhD Student Jenni Shafer

Jenni found herself on a different path, however, as she progressed throughout the program, working primarily with individuals with psychiatric illnesses such as eating disorders.

But when her father died of a stroke in 2012, Jenni found herself needing more. "I knew I wanted to change my path, but I didn't know in what way," she said.

Still, she remained at the North Carolina Therapeutic Riding Center, a hobby and a passion that brought her great fulfillment. It was also the place that brought that catalyst for change when, in 2013, she found herself caught between two agitated horses. Jenni was knocked down and kicked in the head. She underwent an emergency craniotomy at UNC Hospitals and woke up the next day in the ICU.

Immediately after the injury, she battled aphasia, an acquired language disorder that can affect one's ability to express or understand language. She likens the disorder to the tipping and scattering of "word files" in one's brain.

After her injury, she began researching the disorder that continued to hinder her speech. She was shocked by how little information was available on apraxia of speech in adults, as most of what her search yielded pertained to developmental apraxia of speech in children.

"That just wasn't good enough for me" she said. So Jenni decided to take her recovery process into her own hands.

That change came in the form of her application to the Division of Speech and Hearing Sciences' PhD program, a decision bolstered by her work with the Department of Allied Health Sciences' Adam Jacks, PhD, and Katarina Haley, PhD.

She began the PhD program in August 2016. For the past year, she has been conducting research on what she finds to be an increasing number of barriers to accessing outpatient rehabilitation care for people who have had a stroke, and who therefore suffer from aphasia and apraxia.

"I hope that one day we do have enough data to say, 'look, these therapy caps are arbitrary and need to be changed,'" she said.

-Rachel Kompare

NEW GRANTS AWARDED (MAY 1, 2017-OCTOBER 31, 2017)

Title	Team	Award Amount	Sponsor
Chronic Kidney Disease in Children (CKiD)	Hooper, Stephen	\$36,293	Children's Hospital of Philadelphia (CHOP) (Sponsor); National Institute of Health (NIH) (Prime)
Portable WARrior Test Of Tactical Agility	McCulloch, Karen; Favorov, Oleg; Prim, Julianna; Zhang, Wanqing	\$947,233	Department of Defense (DoD)
Preparation of Pediatric Audiologists and Speech-Language Pathologists to Serve Children with High Intensity Needs Including Hearing Loss and Developmental Disabilities	Roush, Jack; DeRamus, Margaret; Harrison, Melody; Kramer, Christine; McComish, Cara; Morris, Djenne	\$161,936	Department of Education (DoED); Office of Special Education Programs (OSEP)
Evaluation of a Novel Intervention for Infants At Risk For Neurodevelopmental Disorders	Watson, Linda; Bulluck, John, Crais, Elizabeth; Faldowski, Richard; Turner-Brown, Lauren	\$223,246	National Institute of Child Health and Human Development (NICHD)
NC DHHS, DAHS OT Contract	Wakeford, Linn	\$37,098	North Carolina Department of Health and Human Services (NC-DHHS)
Interprofessional Education in Falls Risk Assessment and Intervention	Mercer, Vicki	\$41,248	NC Area Health Education Centers (AHEC)
Exceptional Children Occupational Therapist	Bagatell, Nancy; Holahan, Lauren; McLemore, Amy	\$175,232	North Carolina Department of Public Instruction (NCDPI)
Exceptional Children Physical Therapist	Givens, Debby; Ray, Laurie; McLemore, Amy	\$179,486	North Carolina Department of Public Instruction (NCDPI)
Special Education - Literacy Skills Instruction for Students with Significant Cognitive Disabilities	Greer, Claire; Hatch, Penny	\$15,000	North Carolina Department of Public Instruction (NCDPI)
NRI: Novel Platform for Rapid Exploration of Robotic Ankle Exoskeleton Control Strategies to Augment Health or Restore Post-Stroke Location	Lewek, Michael	\$9,923	North Carolina State University (NCSU)
SBIR: Targeted tDCS Aphasia Trial	Jacks, Adam; Roth, Heidi	\$115,765	Sorterix Medical Inc.
Understanding Thinking and Learning among Students with Significant Disabilities	Erickson, Karen; Noblit, George; Ryan, Skip	\$859,744	Spencer Foundation
Sweat Electrolytes in Infants with Cystic Fibrosis: Variability and Relationship	LeGrys, Vicky; Moon, Tara; Laux, Jeff	\$18,188	University of Colorado
Outcomes of School-Age Children Who Are Hard of Hearing	Harrison, Melody; Mundy, Martha; Page, Thomas	\$139,781	University of Iowa (Sponsor); National Institute of Health (NIH) (Prime)
Promoting ASAP Collaboration through Technology (PACT): An Intervention Modification to Enhance Home-School Collaboration	Boyd, Brian; Crais, Elizabeth; Reszka, Stephanie; Watson, Linda; Zhang, Wanqing	\$423,972	US Department of Education (DoED)
Bridging the Gap Between Research and Practice	Crais, Elizabeth; Able, Harriett; Bagatell, Nancy; Boyd, Brian; Watson, Linda	\$250,000	US Department of Education (DoED)
Interdisciplinary Leadership in Autism Spectrum Disorders: Optimizing Research-Practice Partnerships for Evidence-Based Outcomes	Crais, Elizabeth; Able, Harriett; Boyd, Brian; Watson, Linda	\$249,642	US Department of Education (DoED)
An Examination of Response to Intervention in the Early Writing Skills of At-Risk Preschoolers	Hooper, Stephen; Costa, Lara; Yerby, Donna; Sideris, John; Vernon-Feagans, Lynn	\$798,579	US Department of Education (DoED)
Identifying Technique Limitations to Elite Performance in Discus Throwing and Javelin Throwing	Yu, Bing; Min, Mao	\$40,000	USA Track and Field

Fall 2017 Research Forums

Self management and health care transition from pediatric- to adult-focused health services among adolescents and young adults with chronic health conditions: Lessons from the field

September Forum

Maria Ferris, MD, MPH, PhD, spoke about medical transitions from pediatric care to adult health services, focusing her talk on adolescents and young adults who face chronic illnesses.

Ferris, an associate professor in the UNC School of Medicine, has worked in the field of pediatric nephrology for more than 30 years. Her goal is to advance research and data to show how preparations improve the lives of children and young adults as they transition into more independent roles with their personal health.

Adolescents and young adults with chronic conditions are often overlooked as they tend to be healthier overall than the older patients in a medical practice. In pediatric care, those same patients are a top priority.

Ferris and her research team believe that self-management of health conditions will better prioritize pediatric patients facing that transition. New evidence shows responsibility and chores help young patients prepare for adult care at a faster rate. Ferris said even small tasks seem to ease the transition to adult care.

Her research also indicates that parents have a lower perception of their child's quality of life, while the same adolescents often have a higher outlook on their lives.

Ferris insists that despite their findings, much remains to be discovered, although ongoing studies validate their findings thus far.



Magnuson and Tan highlight research opportunities

October Forum

Terry Magnuson, PhD, and UNC-Chapel Hill's vice chancellor for research, joined Joyce Tan, PhD, and associate vice chancellor for research, at the Department of Allied Health Sciences October Research Forum to speak about upcoming research opportunities at the University.

In collaboration with Chancellor Carol Folt and a multitude of academic departments, Magnuson and Tan are working to create research hubs for interdisciplinary research.

Magnuson and Tan stated a desire to create buildings on campus that lend themselves to collaboration among programs. This, they said, will enhance opportunities for interdisciplinary research and will make it easier to share research findings.

Their goal is to promote transparency with findings and to change the way that the schools and department approach research.



New pilot grant offers researchers of all fields an opportunity to study sleep science

November Forum

In an effort to build an internationally recognized program of research in sleep science at UNC-CH, DAHS is pleased to announce its new Sleep Innovative Research Grant (SIRG) program. "Our goal is to foster interdisciplinary research capacity in sleep science through providing funding for researchers to conduct innovative sleep science research in clinical or translational sciences," said Dr. Mary Ellen Wells, director of the NDSS program in the Department of Allied Health.



The program will fund researchers up to a maximum of \$10,000 for their one-year projects. Beginning in the summer of 2018 and continuing through 2021, the competitive award process will offer three grants annually to UNC investigators (both faculty-level and post-doctoral fellows) who integrate sleep science into their studies using a variety of methodologies. It is anticipated that by providing researchers with funding to support the successful pilot projects, their findings will yield sufficient preliminary data to support a future larger-scale grant application.

Sleep Innovative Research Grant Due Dates

RFA's announced	November 29, 2017
Letter of intent due	January 31, 2018
Application due	March 30, 2018
Award announcement	June 1, 2018
Funds made available (pending IRB approval)	July 2, 2018

The grant program is one of the initiatives made possible from a gift from the Eddie Jo Allison Smith Family Foundation to DAHS and the Department of Neurology. Dr. Wells and Bradley Vaughn, MD, Vice Chair and Professor in UNC's Department of Neurology, are leading the initiatives stemming from the grant, with administrative leadership from DAHS Associate Chair and Dean Stephen Hooper, PhD, and the DAHS Office of Research. DAHS Associate Chair for Research, Brian Boyd, PhD, launched the grant program along with Dr. Wells and Dr. Vaughn at the November Research Forum, to an audience of current and potential sleep researchers.

For researchers wanting more information about the SIRG program, including requirements for proposals and letters of intent, please see our page on the DAHS Office of Research website at <http://www.med.unc.edu/ahs/research/sleep-research-pilot-grants>.

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More than 1,000 patients from North Carolina and Tennessee, states with high opioid use rates, will be enrolled in the study. Researchers will compare two interventions to evaluate their effect on opioid dosage, physical functioning and pain-related outcomes.

One intervention involves a shared decision-making process where patients and clinicians make evidence-based decisions together that align with the patients' values. It requires strong communication between the patient and provider about the risks and benefits of treatment options.

The other intervention uses motivational interviewing as a goal-oriented counseling technique to enhance an individual's motivation for behavior change. This involves cognitive behavioral therapy in group sessions to foster more positive thoughts, emotions and behaviors to help manage pain.

Both intervention groups will also receive care based on the Centers for Disease Control and Prevention's new guidelines for treating opioid patients, including patient selection for opioid use, goal setting, active monitoring, and reducing misuse and abuse.

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"This project was selected for PCORI funding for its potential to fill an important gap in our understanding of long-term opioid therapy and to give people living with chronic pain useful information to help them weigh the effectiveness and safety of their care options," said PCORI Executive Director Joe Selby, MD, MPH. "We look forward to following the study's progress and working with RTI International to share the results."

There is a shortage of high-quality evidence demonstrating the safety and effectiveness of long-term opioid therapy for the management of chronic pain, and to date no large-scale studies have assessed strategies for managing and reducing chronic opioid use in clinical settings.

Principal Investigators from partner institutions include UNC Chapel Hill's Paul Chelminski, MD; Duke's Li-Tzy Wu, ScD; and Vanderbilt's Kristin Archer, PhD will collaborate with McCormack and RTI opioid expert, Mark Edlund, MD, PhD.

"This clinical trial is intended to retrofit pain management and align it with the sensible recommendation that chronic pain therapy incorporate a strong behavioral medicine component," explained Chelminski, director of the Physician Assistant Program in UNC's Department of Allied Health Sciences, and general internist in the Internal Medicine Clinic.

The team will receive input from an advisory panel that includes patients and advocates.

RTI International's award has been approved pending completion of a business and programmatic review by PCORI staff and issuance of a formal award contract. RTI has an extensive research portfolio that helps policymakers make informed decisions about the prevention and treatment of opioid-use disorders. To learn more, visit RTI's Opioid Research web page at <https://www.rti.org/emerging-issue/opioid-research>.

PCORI is an independent, nonprofit organization authorized by Congress in 2010. Its mission is to fund research that will provide patients, their caregivers, and clinicians with the evidence-based information needed to make better-informed healthcare decisions. For more information about PCORI's funding, visit <http://www.pcori.org/funding/opportunities>

Student Research Ambassador Award continued from page 1

From top left to bottom right, the 2017 Student Research Ambassador Award recipients include:

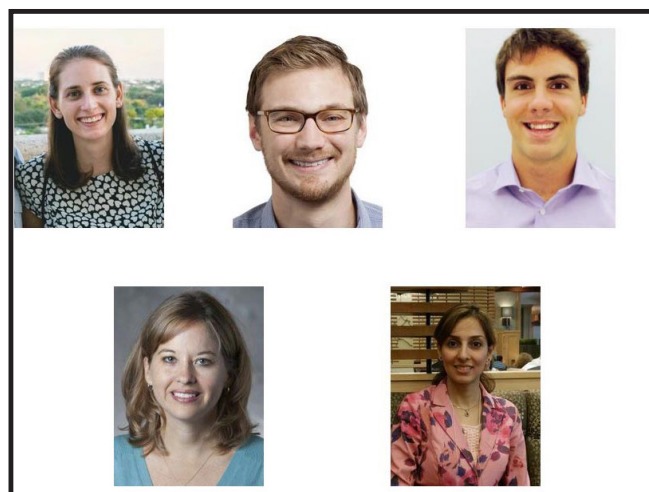
Kathryn Williams (Division of Occupational Science and Occupational Therapy) "Longitudinal Prediction of Adaptive Behavior from Sensory Features and Intensity of Services in Children with ASD and Other DD"

Michael Clark (Human Movement Science) "Reliability of the Head Impact Exposure Estimate in Former Professional Football Athletes"

Kody Campbell (Human Movement Science) "Peak Resultant Linear Acceleration Agreement between Common Head Impact Sensor Devices"

Jody Feld (Human Movement Science) "Visual Scanning Behavior during Attention-Demanding Tasks while Walking in Healthy Young Adults"

Marziye Eshghi (Division of Speech and Hearing Sciences) "Convert Acoustic of Alveolar-Velar Stop Contrasts in the Speech of Two-Year-Old Children with and without Repaired Cleft Palate"



Fourth-year audiology student Emily Spitzer published in Journal of the American Academy of Audiology

Emily R. Spitzer, a fourth-year audiology student in the Division of Speech and Hearing Sciences, was published in the October 2017 issue of the Journal of the American Academy of Audiology. Her article is titled "Effect of Stimulus Polarity on Physiological Spread of Excitation in Cochlear Implants," and is co-authored by Michelle L. Hughes.

DAHS PT faculty welcome Winston-Salem State PT faculty to explore research possibilities

Faculty from UNC's Physical Therapy (PT) division and the Department of Exercise and Sports Science met in early November on the UNC campus with fellow PT faculty from the School of Health Sciences at Winston-Salem State University to brainstorm ideas for future collaboration. As the group of 20 shared current research, they realized avenues of common interests. In breakout groups, the investigators brainstormed ideas in the areas of falls prevention, health disparities and interprofessional education. The group also generated ideas around creating research opportunities for doctoral students.

The idea to join in research endeavors came after UNC PT researchers Debbie Thorpe, PT, PhD, and Vicki Mercer, PT, PhD, noted overlaps in the research interests of faculty at the two institutions in the areas of multiple sclerosis, stroke, biomechanical research, and health equity and disparities. Some PTs had already formed research relationships, including Sara Migliarese (WSSU) and Prue Plummer, PhD, PT (UNC), as well as Judy Foxworth, a former UNC doctoral student who now is on faculty at WSSU, and UNC's Brian Pietrosimone, PhD, ATC. The interest in collaboration also stems from one of the strategic initiatives of the DAHS Research Advisory Committee: namely, to reduce health disparities through connections with minority-serving universities, including Historically Black Colleges and Universities.

The two groups plan to meet again in the spring – this time at WSSU's campus – as the research wheels continue to turn among meeting participants.

Winston-Salem State University Physical Therapy Faculty Visit UNC-Chapel Hill (*asterisk indicates WSSU faculty)



Front row left to right:

*Christina Criminger, PT, PhD, GCS
Dana McCarty, PT, DPT, PCS, C/NDT
Jennifer Cooke, PT, DPT
*Doris Molina-Henry, PhD
Karen McCulloch, PT, PhD, MS, NCS
*Sara Migliarese, PT, PhD, NCS
Deborah Thorpe, PT, PhD

Back row left to right:

Stephen Hooper, PhD
Vicki Mercer, PT, PhD
*Judy Foxworth, PT, PhD, OCS
Michael Lewek, PT, PhD
*Nancy Smith, PT, DPT
*Lynn Millar, PT, PhD, FACSM
*Hamdy Radwan, PT, MS, PhD, CMP
*Christopher Wendt, MS
*Emma White, PT, DPT, OCS
*Tiffany Adams, PT, DPT, GCS (WSSU)

Stella Reneke, UNC Philosophy/Journalism major