

PM&R CONNECTION



RISE WHEELCHAIR MOTOCROSS WORLD CHAMPIONSHIP

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Message from the Chair

Kathleen Bell, MD

It is my third spring in Dallas, Texas, and I am looking out at a crystal blue sky over a city that changes daily. Construction booms delicately trace across the sky, metallic but graceful creatures, six of them from my windows. They are blooming almost as profusely as the wildflowers on hillsides and the spring dragonflies of every color near the waterways. Growth and renewal are the currency of spring and the UT Southwestern PM&R Department is growing and renewing as well.

We were thrilled with our Match results after our interview season led by our Residency Director, Dr. Kim Barker, and coordinator Terri Isbell. Four of our own UT Southwestern students will be staying with us and our other matches represent our increasing draw across the country. Of our graduates, two will go on to fellowships (Dominic Jacobelli for Sports Medicine and Stephanie Tow for Pediatric Rehabilitation). We are sorry to say goodbye to Dr. Geetha Pandian who began her residency here in 1977 and has served on the faculty since then with great distinction.

Of course, the practice of PM&R is changing as well – UT Southwestern currently has the eighth largest Medicare ACO in the country and has committed to participation in the Next Generation ACO program. Dr. Jean DeLeon, Professor PM&R, is leading the UT Southwestern effort to examine our use of post-acute services and the future of patient care after acute hospitalization. Drs. Amy Phelan and John Thottakara are re-examining and re-designing PM&R services for our most underserved populations at Parkland Hospital. And we are rethinking our PM&R community outreach, through formal clinical services and through innovative community education and health services.

Feeding my own personal renewal this weekend, our rehabilitation team was honored to provide medical services for the RISE Wheelchair Motocross World Championships in Grand Prairie under the direction of Dr. Jason Petrasic. It was incredible to watch a young boy rocket down a skate park ramp with the RISE volunteers, absolutely shaking with excitement and joy. Or seeing a teenage girl vault into the air – who says girls can't fly? Thanks to all who participated – kids, parents, adults, volunteers, medical students, residents, and physicians. Enjoy our 2017 Spring newsletter!

UT Southwestern
Medical Center

Generosity of Crystal Charity Ball Provides Gait and Mobility Program to Pediatric Rehabilitation Medicine

Dr. Didem Inanoglu, MD
Developing a new mobility training program with NeuroCom balance manager system at Children's Health System Texas



The Division of Pediatric Rehabilitation Medicine is thrilled to announce that they are the beneficiaries of a \$1.1 million award from the Crystal Charity Ball that will go toward the development of an advanced pediatric gait and mobility program. The award will be utilized to purchase five pieces of advanced therapy equipment that will create the foundation for the program. The equipment includes a Lokomat Pro robotic assisted treadmill gait training system, a Hydroworx treadmill based therapy pool, an Andago

'overground' robotic gait training system, an Erigo functional electrical stimulation tilt table, and a Natus balance assessment and training system. The program will integrate activity based restorative therapy principles to address both motor and sensorimotor recovery in patients suffering from an array of neurologic disorders and injuries, and is designed to be comprehensive in nature so that it can be utilized across the full spectrum of recovery, including use in the minimally conscious patient. Planned growth for the program will include the application of modified, disease-specific gait training protocols, the development of a robust research base, and the eventual acquisition and application of exoskeleton robotic gait equipment. The comprehensive nature of the program, its application of cutting edge robotic technology, and its ability to address mobility across a large spectrum of impairment sets it apart from all other gait and mobility programs in Texas, and makes it unique among pediatric rehabilitation programs nationally.

UT Southwestern Mobility Foundation Announces Spring Awards

Selective Nerve Root Blocks & NEE Predicting Outcomes in Lumbosacral Radiculopathy

PI: Kavita Trivedi, D.O.

The objective of this research project is to evaluate the diagnostic accuracy of using selective nerve root block and needle electrode electromyography in predicting short term outcomes pre-injection, post-injection, and postoperatively in patients with suspected lumbar radiculopathy.

Imaging Mitochondrial Function in Brain of Patients with Mobility Disorders

PI: Jae Mo Park, Ph.D.; Co-I: Joseph Maldjian, M.D., Craig Malloy, M.D.

The intent of this project is to distinguish metabolism of physiological substrates through either normal oxidative pathways in mitochondria versus metabolism through anaerobic mechanisms to lactic acid. Although the focus of this project is traumatic brain injury, it is conceivable that hyperpolarized C imaging of mitochondrial func-

tion could prove valuable in a wide range of patients with movement disorders, such as patients with prior strokes, inborn errors of metabolism, and multiple other conditions.

Motor Adaptation of Unanticipated Locomotor Transitions in Individuals with Parkinson's Disease

PI: Nicholas Fey, Ph.D.; Co-I: Staci Shearin, PT, NCS

The goal of this project is to identify the motor learning processes involved in the locomotor transitions of individuals with and without Parkinson's disease under varying levels of task anticipation and complexity. The aims are, 1) to identify the motor learning processes of able-bodied individuals during locomotor transitions of altered complexity and anticipation, 2) to determine the differential effects of Parkinson's disease on the motor behaviors of locomotor transitions, and 3) to assess the influence of device assistance in individuals with Parkinson's disease on the motor behaviors of loco-

For more information about the [Mobility Foundation Center for Rehabilitation Research](#) contact

Jessica R. Moreno, RN
214-648-0593

Collaborative Research Efforts Growing

Dr. Shannon Juengst, PhD has been chosen as a recipient of an Early Career Travel Scholarship from the ACRM Brain Injury Interdisciplinary Special Interest Group. The scholarship provides funding to support those taking an active role in task force activities.

Dr. Juengst's primary ACRM involvement is with the Chronic Brain Injury Task Force, working on a systematic review for cognitive interventions in older adults with TBI. She will also be collaborating with the Girls and Women with ABI Task Force to complete a cognitive rehabilitation systematic review stratifying by sex and gender. In addition, Dr. Juengst is working with the ACRM's Measurement Networking Group in collaboration with the Chronic TBI Task Force related to long-term assessment issues after TBI.

Her work with the Measurement Networking Group will involve establishing and Co-Chairing a Curriculum Task Force. The goal of the Curriculum Task Force is development of a survey for rehabilitation educators related to measurement in rehabilitation science curricula.

Dr. Thiru Annaswamy represented the Dallas Veterans' Affairs Medical Center in *The Arc of Science: Research to Results* in Washington, DC. New congressmen/women and representatives from various sectors of the economy, such as health care, education and industry, enjoyed hands-on demonstrations of technologies directly stemming from National Science Foundation (NSF) funded research. The Dallas Veterans' Affairs Medical Center is a Community Partner for Dr. B. Prabhakaran's University of Texas at Dallas project *3D Immersive Tele-Rehabilitation*. The Capitol Hill event highlighted NSF-funded researchers and include remarks from Dr. France Cordova, the Director of NSF and leadership from the House Committee on Science, Space, and Technology.

Dr. Thiru Annaswamy demonstrates NSF funded technology with representative Dan Lipinski (D-IL)



Update on 2016 Shark Tank Awards

As we gear up for the second year of PM&R Shark Tank, the 2016 winners are out in the water! Drs. Ugo Bitussi, DO and Jared Worchel, DO have successfully navigated initiating their studies and begun recruiting. Dr. Worchel's study, [Cranial Electrical Stimulation \(CES\) as a First Line Treatment for Insomnia in Patients with Subacute Stroke](#), is looking to determine if stroke patients with insomnia who receive CES treatment sleep more hours and have better sleep efficiency than stroke patients treated with sham CES. As more evidence becomes available indicating that sleep has a lot to do with healing after an injury to the brain, Dr. Worchel is measuring sleep indicators using an actigraph in the two groups of participants. Dr. Worchel has found that the crucial part of making the study work is to have a great team behind you. With the help of the Zale Lipshy rehabilitation nursing staff, led by Amy Everett, RN, he has been able to find an enthusiastic group of nurses and research personnel to help put his study into action!

With the onset of soccer season, Dr. Bitussi has been kicking up the dirt alongside the hardworking soccer players of Dallas. His study, [Concussion in Youth Soccer: Is There a Difference Between Competitive and Recreational Players](#), looks to compare the incident rates of sub-concussive events between the two groups. Gaining interest and support from community partners to work with their soccer clubs laid the groundwork to interact with parents and youth soccer players. Dr. Bitussi trained and worked with medical students from Texas College of Osteopathic Medicine and UT Southwestern to perform pre-season concussion screening on participants and is moving toward making his research project a reality. At the end of the season, Dr. Bitussi and his team will be completing follow-up testing.

We look forward to hearing the presentations from our sharks this year!

Imran Qureshi, Texas College of Osteopathic Medicine student, performing King-Devick Test with a research participant



UT Southwestern PM&R Education Program Update

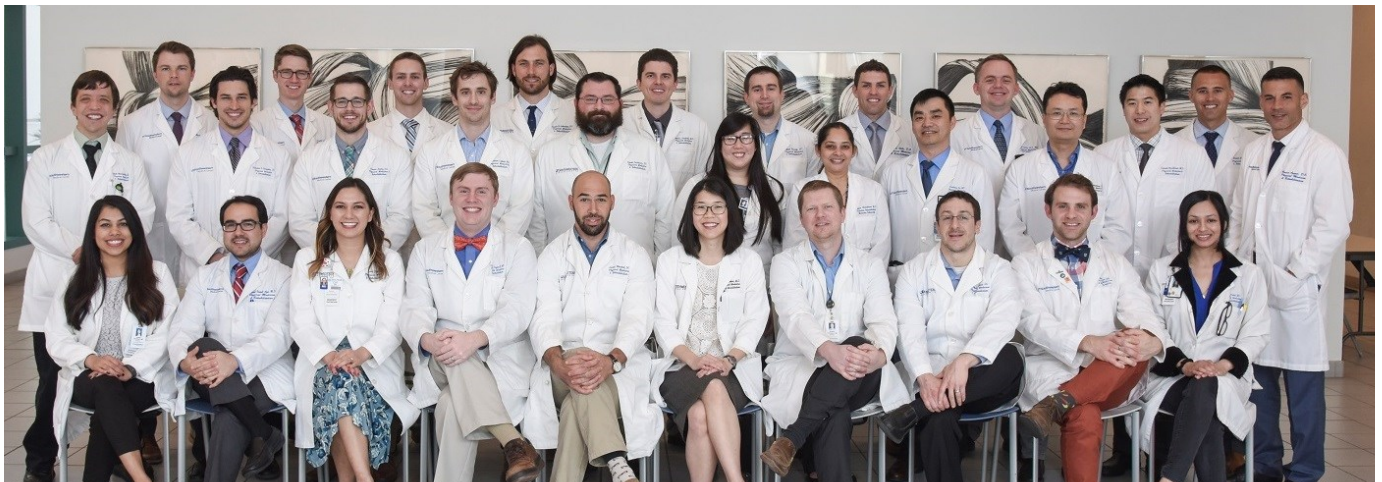
It has been quite the year for the residency program! Where to begin? The new curriculum is off to a good start. Early feedback from the residents demonstrate that they appreciate the expertise from the attending lecturers as well as incorporating more hands-on workshops for botulinum toxin injections, a new MSK ultrasound course (thanks to Dr. Jason Petrasic), and musculoskeletal physical exam. There was also great feedback for breaking up the residents last July and August for “Intro” and “Advanced” lectures and we will continue to do this. We also held our annual Education Retreat this past March in which we covered ACGME hot topics including *Giving and Receiving Feedback* presented by UTSW’s Medical School Assistant Dean of Undergraduate Medical Education, Dr. Dorothy Sendelbach, and *Physician Wellness and Burnout* presented by Dr. Natalie Ramirez from the Psychiatry department.

We also have completed a successful and very busy residency interview season. We had over 550 applications to the program and interviewed 87 medical students

matched into PM&R and we were lucky enough to match four of our own. The two other wonderful future physiatrists will be heading to other wonderful programs, the Rehabilitation Institute of Chicago (recently renamed the Shirley Ryan AbilityLab) and Columbia/Cornell.

The department will also be holding our 2nd Annual UTSW PM&R Residency Shark Tank on June 9th. Our previous winners have all made us proud with their research endeavors and what they have learned. We eagerly anticipate what research “pitches” we hear this year.

In alumni news from the last year, there were weddings, babies, and new jobs! Dr. Jason Ly got married last summer. Dr. Lauren Fisher and her husband are expecting twins! Dr. Ronald Baptiste, Dr. Jeremy Jones, Dr. Whitney Choteau and their respective families all welcomed new babies. Dr. Wenbao Wang and Dr. Albert Vu both returned to Texas for Spine/Pain positions.



UT Southwestern PM&R Resident Class 2017

Our own senior class of residents is getting ready to head out into the world and we could not be more proud of them!

Dr. Andrew Covington, MD - TBD

Dr. Derek Davidson, DO - Pioneer Sport and Spine, West Springfield, MA

Dr. Philip DeMola, DO - Deuk Spine Institute, Melbourne, FL

Dr. Matthew Hasley, DO - Infirmiry Health System, Mobile, AL

Dr. Dominic Jacobelli, MD - Sports Medicine Fellowship, University of Tennessee, Knoxville, TN

Dr. Austin Johnston, DO - Kalispell Regional Medical Center, Kalispell, MT

Dr. Stephanie Tow, MD - Pediatric Rehabilitation Medicine Fellowship, University of Colorado, Aurora, CO

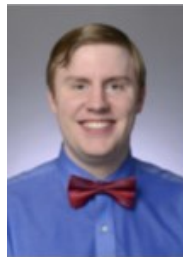
Dr. Jared Worchel, DO - CompHealth, Pacific Northwest

Dr. Lori Yap, MD - VA, Fort Worth, TX

Medical Students Receive Expert Training from PM&R

Fifteen UT Southwestern PM&R faculty members and a handful of our residents were involved in teaching the musculoskeletal physical examination to first year medical students as part of the revised medical school curriculum. In two 90 minute workshops, the PM&R physicians taught the eager learners about the basics of a good musculoskeletal examination, including inspection, palpation, and range of motion for all the key joints in the upper and lower extremities as well as the spine. A second round of teaching will take place later in the year, where the students will get to learn about “special tests” used to diagnose specific conditions. The students enjoyed practicing on each other and learning about PM&R as a specialty. The PM&R department’s involvement was especially appreciated by the students’ college mentors. Dr. Wayne Gluf, Associate Professor of Neurologic Surgery, commended the departmental effort, “The PM&R faculty did a great job teaching the exam and important clinical aspects that will benefit our students moving forward. My students thought you were outstanding!!!”

PM&R Resident Accepts the Challenge



Dr. Charles Taylor will be serving in a joint position for both the AAPM&R Resident and Fellow in Training Physician Council and the ACGME Review Committee. As the resident member of the ACGME’s Review Committee for Physical Medicine & Rehabilitation, Dr. Charles Taylor is also appointed to the ACGME’s Council of Review Committee Residents (CRCR). The CRCR serves as an advisory body to the ACGME concerning resident matters, graduate medical education (GME), and accreditation. The group has greatly influenced the ACGME’s work and provides a critical resident perspective. Dr. Taylor says his goal for serving on the ACGME review committee is to continue the work of previous committees in improving the standards and quality of PM&R residency programs. He goes on to say, “By gaining better insight into what makes some of the best PM&R residency programs so exceptional, I hope to help apply standards that raise the bar for all PM&R residency programs, and in turn continue to lift the field up as a whole.”



Two of our fellows will be graduating this year as well and will be doing great things!

Dr. Yuemeng Dai (R), who is completing a fellowship in brain injury medicine, will be staying local. Dr. Dai will be the associate medical director at Mesquite Rehabilitation Institute in Mesquite, TX. He will be focusing on inpatient and outpatient rehabilitation including neurorehabilitation, spasticity management and EMG/NCS.

Dr. Erika Gosai (L) will be completing her fellowship in spinal cord injury and has taken a position with MedStar National Rehabilitation Network, in Washington, DC. She will be attending to SCI patients on their inpatient rehabilitation unit as well as supervising the residents working with her.



GO-PMR Campaign Gaining Momentum

The ongoing campaign for resident education development, GO-PMR (Giving Back to Promote Residency Development) has raised \$51,000 thanks to the contributions of alumni, faculty and friends of the PM&R department. This includes matching funds from UT Southwestern president Dr. Daniel Podolsky. In the future, we will be extending fundraising efforts to grateful patients and their families who wish to contribute to the education of future physiatrists. Funds will assist the department with advancement of departmental educational programming, including: underwriting specialized training courses such as ultrasound, electrodiagnosis and toxin workshops, expanding electronic access to the PM&R e-book library, providing opportunities for residents to participate in national endeavors and encourage networking and leadership training, and supporting resident research.



Dr. Brian Kelly, MD, PM&R Resident, assists RISE Motocross participant with positioning

Faculty Publications and Presentations

Parry I, Forbes L, Lorello D, Benavides L, Calvert C, Hsu SC, Chouinard A, Godleski M, **Helm P**, **Holavanahalli RK**, Kemp-Offenberg J, Ruiz CE, Shon R, Schneider JC, Shetler M, Suman OE, Nedelec B. Burn Rehabilitation Therapists Competency Tool-Version 2: An Expansion to Include Long-Term Rehabilitation and Outpatient Care. *J Burn Care Res*, 2017;38(1):e261-68.

Goverman J, Mathews K, **Holavanahalli RK**, Vardanian A, Herndon DN, Meyer WJ, **Kowalske K**, Fauerbach J, Gibran NS, Carrougher GJ, Amtmann D, Schneider JC, Ryan CM. The NIDILRR Burn Model System: Twenty Years of Contributions to Clinical Service and Research. *J Burn Care Res*, 2017;38(1):e240-53.

American Burn Association, Boston, March 2017

POSTERS/ABSTRACTS

Simko LC, Espinoza LF, Kazis LE, McMullen KA, Herndon DN, Suman OE, **Kowalske K**, Fauerbach J, Wiechman SA, Ryan CM, Schneider JC. Fatigue Following Burn Injury: A Burn Model System National Database Study

Amtmann D, Bocell F, McMullen K, Carrougher GJ, Fauerbach J, Gibran NS, **Holavanahalli R**, Liljenquist KS, Meyer W, Ryan CM, Schneider JC. The Psychometric Properties of the Burn Specific Health Scale-Brief

COURSES AND WORKSHOPS

Dr. Radha Holavanahalli, Postgraduate Course B: Tools and Resources for Improving Social Reintegration: How We Do It, Course director

Dr. Radha Holavanahalli, Social Skills Training: Tools for Thriving After Burn Injury

PRESENTATIONS

Drs. Karen Kowalske and Radha Holvanahalli, Contracture Severity at Hospital Discharge in Adults: A Burn Model System National Database Study

Drs. Karen Kowalske and Radha Holvanahalli, Contracture Severity at Hospital Discharge in Children: A Burn Model System National Database Study

Drs. Karen Kowalske and Mark Fox, Use of Bisphosphonates in Burn Patients to Decrease Ankylosis in Heterotopic Ossification

Dr. Karen Kowalske, Con: Pressure Garments Reduce Post Burn Hypertrophic Scarring and Should Be Used

Dr. Radha Holavanahalli, An Examination of Follow-up Services Received by Vulnerable Burn Populations: A Burn Model System National Database Study

World Congress on Brain Injury, New Orleans, March 2017

PRESENTATIONS

Dr. Shannon Juengst presented "Depression, Cognition, and Dopamine Genetics: Piecing Together the Complicated Puzzle of Behavior Following Traumatic Brain Injury"

POSTERS/ABSTRACTS

Hoffman J, Lucas S, Stacey A, **Bell K**, Temkin N, Dikmen S. Five Year Headache Trajectories after Moderate to Severe Traumatic Brain Injury. World Congress on Brain Injury, New Orleans, LA, March 2017.

Tarkenton TR, Wilmoth K, Cullum CM, **Bell K**. Impact of Gender and Mood on Relationship between Post-Concussive Symptoms and Functional Impairment. World congress on Brain Injury, New Orleans, LA, March 2017.

Womack K, Callender L, Dubiel R, **Bell K**, Driver S, Shafi, S. Dopamine Imaging in Traumatic Brain Injury (TBI): Association with Functional Outcomes. World Congress on Brain Injury, New Orleans, LA, March 2017.

Purkayastha P, Frantz J, Sabo T, **Bell K**. Impaired Cerebral Vasoreactivity Persists Beyond Symptom Resolution Following Concussion in Collegiate Athletes. World Congress on Brain Injury, New Orleans, LA, March 2017.

International Neuropsychological Society, New Orleans, February 2017

Wilmoth K, Galusha JM, Bunt SC, Godbey EI, Holder N, Garner-Roberts J, Bloomgarden G, Didehbani N, Miller S, **Bell K**, Cullum CM. Delayed Clinical Evaluation following Concussion Predicts Prolonged Return to Play in Female Student-Athletes.

19th Annual PM&R Scientific Day

Women and Rehabilitation: Bridging Generations

June 3, 2017

This year's Scientific Day program is designed to highlight scientific advances in the area of Women's Health Issues in the field of Physical Medicine and Rehabilitation. Additionally, the program will showcase the research performed by residents in the Department of Physical Medicine & Rehabilitation at UT Southwestern.



Monica Rho, MD

"Sex Differences in Sport Medicine"

"Post-partum Recovery of the Lateral Abdominal Wall Musculature"

Monica Rho is the Director of the Women's Sports Medicine Program at the Rehabilitation Institute of Chicago, an assistant professor at RIC/Northwestern University Feinberg School of Medicine, and is an attending physician in the RIC Sports and Spine Rehabilitation Center. She has been the Medical Director of the Joffrey Ballet since 2014 and in 2015, she was appointed the Head Team Physician of the US Men's Paralympic Soccer Team by US Soccer, traveling with the team to the Rio Paralympics in 2016.

Ugis Gruntmanis, MD

"Fractures Caused by Osteoporosis, Deadly but Forgotten. Let's change that!"

Ugis Gruntmanis, MD is a Professor in the Department of Internal Medicine, Division of Endocrinology. He is the Associate Program Director for the Internal Medicine Residency Program and Chief of the Endocrinology Section at the Dallas Veterans Affairs Medical Center. He is a member of The American Society for Bone and Mineral Research and The Endocrine Society.



Urszula Kelley, MD



"Physical Activity and Body Images in Young Girls/Adolescences"

Urszula Kelly, M.D., is a Professor of Psychiatry at UT Southwestern Medical Center and is the director of Psychiatric Services at Children's HealthSM in Plano. Dr. Kelley is an active member of the American Academy for Eating Disorders as well as the American Academy for Child and Adolescent Psychiatry. She is a Certified Eating Disorders Specialist Supervisor for other professionals.

Kathleen Bell, MD

"Girls, Women, and Concussion"

Dr. Bell is the Chair of the Department of Physical Medicine and Rehabilitation at UT Southwestern and holds the Kimberly-Clark Distinguished Chair in Mobility Research. She is a nationally recognized leader in rehabilitation medicine and a specialist in neuro-rehabilitation. Dr. Bell is an Investigator with the Texas Institute for Brain Injury and Repair at UT Southwestern (TIBIR) and the Peter O'Donnell Brain Institute.



Kelly Scott, MD

"Musculoskeletal and Neurologic Pelvic Pain"

Dr. Kelly Scott specializes in the diagnosis, nonsurgical management, and physical rehabilitation of pelvic floor disorders. She is certified by the American Board of Physical Medicine and Rehabilitation and serves as the Medical Director of the Department of Physical Medicine and Rehabilitation's Comprehensive Pelvic Rehabilitation Program, a component of the multidisciplinary Pelvic Floor Disorders Program.

UPCOMING EVENTS:

Saturday, June 3, 2017

UT Southwestern

T. Boone Pickens

Biomedical Building

Dallas, TX

6 CME hours

[Register Now](#)

For more information:

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or call

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UT Southwestern
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GO-PMR

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Contribute to the Physical Medicine & Rehabilitation Residency Program online at utsouthwestern.edu/donatenow. Indicate "GO-PMR" in the specific use field or contact Anne Lacey Office: 214-648-9086
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