Focus on Education

Virtual Grand Rounds

A new lecture series from Spaulding and the Department of PM&R brings experts to the desk-top both live or on demand.

Continues on page 3

Latest News

Reflecting on London 2012

Dr. Cheri Blauwet looks back at her experience at the Paralympic Games as an official advisor and contributor for the PBS Medal Quest series.

Continues on page 7

Research News

Examining the Aftermath of Trauma

A new study by Dr. Jeffrey Schneider examined the long-term impact for survivors of one the deadliest fires in US history, the Station Nightclub Fire.

Continues on page 3
The changing landscape in healthcare
A Message from Jeffrey S. Flier

As Dean of the Faculty of Medicine at Harvard Medical School, one of my greatest pleasures is interacting with researchers and clinicians in a wide range of specialties. An endocrinologist by training, I have long appreciated the importance of preventive and noninvasive medicine. Looking ahead as we consider the rapidly changing landscape of health care in this country, the significance of areas such as physical medicine and rehabilitation will only become greater.

When Ross Zafonte asked me to introduce this issue of the Department of Physical Medicine and Rehabilitation’s newsletter, I welcomed the opportunity. The dynamic work of the department’s faculty, residents, fellows and staff encompasses the complete spectrum of clinical and translational medicine, from the laboratory to the bedside and beyond as community programs support those who need it most.

The high caliber of the department’s endeavors has been widely recognized. The National Institute on Disability and Rehabilitation Research recently selected the Spaulding Rehabilitation Hospital to receive Model System grants in traumatic brain injury, burn rehabilitation and spinal cord injury, making Spaulding one of a select few to hold all three distinctions simultaneously. At the same time, researchers in the department continue to publish in top-tier journals such as NEJM, JAMA, PLOS One, and PNAS. All of us at HMS take great pride in their accomplishments.

One of the many things that makes HMS such a extraordinary environment is the breadth and depth of connections among the many members of our Harvard Medical School community. These collaborations contribute to an ecosystem of unparalleled learning and innovation.

The mission of HMS is to create and nurture a diverse community of the best people committed to leadership in alleviating human suffering caused by disease. To fulfill our shared mission, we focus our efforts on education, discovery and service. I am pleased to say that Spaulding Rehabilitation Hospital is an exemplary member of our community, achieving success in all three areas.

As we look ahead to a new year, and to the third decade of teaching excellence, the Department of Physical Medicine and Rehabilitation is well positioned to further the progress they have made. When the new Spaulding Rehabilitation Hospital and Research Center opens in Spring 2013, it is expected to be a place of healing for trauma survivors, with attention to those with and without physical injuries” said Dr. Zafonte, “Spaulding has a long-standing tradition of sharing knowledge about the latest innovations in PM&R. By freeing our faculty from the confines of time and space, Spaulding’s new Virtual Grand Rounds Series advances our educational mission and creates new opportunities to reach our colleagues across the US and around the globe.”

Upcoming lectures
All broadcasts begin promptly at 1 PM EST (GMT – 5:00)

January 10, 2013
Irene Davis, PhD, PT
Gait Retraining: Altering the Fingerprint of Gait
February 7, 2013
Nitin Jain, MD, MS, MPH
A Review of the 2012 AOAS Guidelines for Surgical Referral and the use of Prosthetic Rotary Cuff Disorders
March 7, 2013 Jonathan Bean, MD, MS, MPH
Mobility’s Role in the Health and Independence of an Aging Population
April 4, 2013 Joseph Giacino, PhD
Amanitadine Hydrochloride: An Effective Treatment to Accelerate Recovery from Severe Traumatic Brain Injury

ACKNOWLEDGEMENT OF INFORMATION: Partners HealthCare System is accredited by the Accreditation Council for Continuing Medical Education (ACME) to provide continuing medical education for physicians. The Partners HealthCare System designates this live activity for a maximum of 1 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Key Facts
» Offered Live and On-Demand
» Up to 1 CME/CE Credit Per Session
» Freestanding Physicians, Hospitals and Allied Health Professionals

Register today at mgh.org/spaulding
THE CONNECTION between Spaulding and Massachusetts General Hospital began when Spaulding, then known as Massachusetts Rehabilitation Hospital, opened in 1971 less than a mile from Mass General. The ties between the two hospitals became even stronger when Spaulding established its connections with Harvard Medical School, of which Mass General had long been a proving ground for many landmark medical breakthroughs. In 1983, Spaulding became a full affiliate of Mass General and the collaborations have strengthened ever since.

Another shared connection is that Spaulding and Mass General have consistently ranked well in the US News & World Report “Best Hospitals” ratings. This past summer marked a true milestone as Spaulding entered its third year with a top-five ranking, and Mass General for the first time since the survey began, ascended to the number one ranking after Johns Hopkins occupied the spot for twenty-one years.

The road to the top ranking involved a sustained commitment to excellence in numerous areas as evidenced by the sixteen specialty areas Mass General was recognized for. Among those were rehabilitation services with Spaulding being incorporated into Mass General’s specialty areas in the survey. This became official two years ago. For years, clinicians and residents in PM&R based at Spaulding had rotations at Mass General as well as interdisciplinary teams collaborating on many projects.

The close collaboration between facilities manifests in many important ways that enable the medical teams to address some of the most difficult challenges in medicine both clinically and operationally. For over a decade, the Spaulding Orthopaedic Program and Mass General Orthopaedic-Trauma Team have had a system in place to foster seamless communication between the facilities. A rounding system was established in which Mass General orthopaedic surgeons round at Spaulding in lieu of the clinic appointment. Utilization of this system allows patients to progress rapidly by having orthopaedic limitations clarified in an expedited manner. Patients do not lose a therapy day being transported to clinical appointments.

Another key issue facing all caregivers is re-hospitalization rates. For providers it has become one of the key quality measurements to guide care model decisions. The Mass General Emergency Department and Department of PM&R have formed a multi-disciplinary task force co-Chaired by Dr. Paul Biddinger, Mass General ED Director of Operations, and Dr. Jaye Hefner, Associate Medical Director of Quality at Spaulding, to look at ways to reduce utilization of the ED for non-emergent services and readmissions from post-acute facilities.

For patients, this collaboration is also seen at the bedside at both Mass General and Spaulding. During patients’ acute care stay, PM&R Department and Division of Trauma member Dr. Ron Hirschberg (pictured) conducts neuro and polytrauma consultations, while rounding with Trauma and ICU teams at Mass General, to determine the rehabilitation course of care long before patients enter Spaulding. Conversely, Mass General physicians such as Dr. Jeremy Goverman from Mass General’s Burn Program, rounds on his patients that were transferred to the Burn Rehabilitation Program at Spaulding.

In summing up the critical links between Mass General and Spaulding, Dr. Ross Zafonte said, “As the age of Accountable Care Organizations begins and the emphasis on episodes of care increases, close collaborations like ours will become increasingly important.”

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- **Massachusetts General Hospital & Spaulding**

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Study Finds Citicoline Does Not Improve Functional, Cognitive Status in Patients with TBI

ALTHOUGH approved for use for treating TBI in nearly 60 countries, use of citicoline in a randomized trial that included more than 1,200 participants with TBI did not result in improvement in functional and cognitive status, according to a study appearing in the November 21, 2012 issue of JAMA. The study led by Dr. Ross Zafonte calls into question a widely used nutraceutical in the United States by patients with a range of neurologic disorders, yet until now had not been evaluated in a large randomized clinical trial for TBI.

The paper reported that “Despite considerable advances in emergency and critical care management of TBI as well as decades of research on potential agents for neuroprotection or enhanced recovery, no effective pharmacotherapy has yet been identified.” Citicoline, an endogenous compound, offers potential neuroprotective properties as well as neuromodulation.

Dr. Zafonte and colleagues from a nationwide consortium conducted the Citicoline Brain Injury Treatment Trial (COBRIT), between July 2007 and February 2011. The study, which included 1,213 patients at 8 U.S. level 1 trauma centers, examined the effects of 90 days of enteral or oral citicoline (2,000 mg) vs. placebo initiated within 24 hours of injury in patients with complicated mild, moderate, and severe TBI.

The researchers found that the citicoline and placebo groups did not differ significantly at the 90-day evaluation on measures of cognitive and functional status. “Rates of favorable improvement for the Glasgow Outcome Scale-Extended were 35.4 percent in the citicoline group and 35.6 percent in the placebo group. For all other scales the rate of improvement ranged from 37.3 percent to 86.5 percent in the citicoline group and from 42.7 percent to 84.0 percent in the placebo group.” In patients with moderate/severe TBI, no statistically significant difference was observed between treatment groups at the 180-day evaluation.

Even before he became a Chief Resident at Spaulding, Paul Gerrard knew a thing or two about sleep deprivation. While studying full-time for his undergraduate degree in Economics at the University of South Carolina, Paul also held down a full-time job as an EMT.

“Being an EMT really affirmed my career choice,” he recalls, “After a few months I knew I wanted to go to medical school.” Like most med students, Paul considered several specialties—Emergency Medicine, Cardiology and Trauma Surgery—and decided on PM&R. “I really liked Neuroscience, so at one point I thought I might become a neurologist or a psychiatrist. Then I learned about PM&R and became intrigued by the field’s focus on the functional consequences of injury.”

Paul first came to Spaulding as a medical student on a 4 week rotation. “Right from the start, I was totally impressed by the place and the people,” he remembers, “There were so many exciting things going on, especially on the research side of the house.”

When asked to comment on Spaulding’s Residency Program, Paul talks about “twin strengths”: “We put young professionals in a great position for fellowship or other academic pursuits and we prepare them to become good practicing clinicians, from the moment they graduate. To my mind, it’s a tough balance to achieve, but Spaulding offers the best of both worlds. The environment here really fosters innovation and encourages residents to engage in research.”

The proof is in the publications. During his Residency, Paul has written seven peer-reviewed original research articles, three of which he first authored.

Having excelled in his Boston-based Residency, Paul was recently offered a position as an Attending Physician at Spaulding’s outpatient facility in Wellesey, Massachusetts.

Although he’s about to become a full-time clinician, Paul has every intention of continuing his research into rehabilitation outcomes and psychometrics. He is looking forward to this new challenge. “I want to become a true clinician-researcher and I hope to encourage others in this field to pursue similar paths as well.”

For me, returning to the Paralympic Games in London was one such homecoming. I competed in Sydney 2000, Athens 2004, and Beijing 2008, bringing home a total of 7 medals. This means I was around the scene for quite some time and saw the Paralympic Movement evolve before my eyes.

Once a hardly-noticed sidebar to the much larger Olympic Games, the Paralympics have slowly, but surely, grown to international prominence. With this has come the recognition of athletes with disabilities and the Paralympians are left with simply — athletes.

For every athlete who makes it to the Paralympic Games, there are dozens more who will try. With this quest comes inherent opportunities for social integration, community access, cardiovascular fitness, mobility, travel, and oh yeah – fun. It’s also important to remember that the Paralympic Games represent the pinnacle of competitive sport for athletes with a physical disability. In recent years, difficult issues such as doping, performance enhancement, or positive ones such as corporate endorsements have entered the realm of Paralympic sport.

All athletes, regardless of “disabled” versus “able-bodied” status have the desire to win, and the Paralympians are no exception. To me, this is actually a symbol of true and meaningful equity.

When all individuals are enabled to live their lives freely and independently (regardless of the ethical choices they make), we begin to see the “disability” descriptor melt away and we are left with simply – athletes.

As we move forward toward Sochi 2014 and Rio 2016, there will certainly be more excitement to come. Continued advocacy is needed toward the development of media coverage of the Games so that all Americans can enjoy watching their U.S. Paralympians compete.

Dr. Blauwet was one of many athletes and officials featured in WGBH Medal Quest: American Athletes and the Paralympic Games. Learn more at pbs.org/wgbh/medalquest
Spaulding is once again ranked by US News and World Reports Best Hospitals at #5 in 2012.

In Pictures

BIAA Honors Dr. Zafonte
Dr. Ross Zafonte received the 2012 William Fields Caveness Award as “Outstanding Researcher and Clinician” from the Brain Injury Association of America from Dr. Flora Hammond, MD, Covalt Professor and Chair, PM&R, Indiana University School of Medicine and Chief of Medical Affairs, Rehabilitation Hospital of Indiana.

General West at Spaulding
Brigadier General Nadja Y. West, MD, Deputy Chief of Staff for Support, U.S. Army Medical Command was hosted by Drs. Ross Zafonte, Felipe Fregni, Joseph Giacino and Maulik Purohit to discuss brain injury treatment research and protocols.

Residents Visit the New Spaulding
Department of PM&R residents toured the new Spaulding Rehabilitation Hospital and Research Center being constructed in the Charlestown Navy Yard learning about its anticipated LEED Gold Design features.

Discover more: http://pmr.hms.harvard.edu