



ALUMNI PULSE



*UMDNJ-New Jersey Medical School
Department of Physical Medicine
and Rehabilitation
December 2008*



Editorial Board

*Joel A. DeLisa, M.D., M.S.
Editor and Chair,
Dept. of PM&R*

Committee Members

*Susan Garstang, M.D.
Doreen Muhammad
Debra Roney
Valerie Trupp, M.B.A.*



*For information about the
Dept. of PM&R, you may visit
our website at:*

www.umdnj.edu/pmrweb

**Department of Physical
Medicine and Rehabilitation
30 Bergen Street, ADMC 101
P.O. Box 1709
Newark, NJ 07101-1709**

Chair's Corner

I want to wish each of you a happy holiday and a healthy, peaceful, and prosperous New Year.

I would like to refer you to the department's website. We have updated many of the sites (faculty, research, residents, medical students, etc.) It gives one a sense of the enormous productivity of our faculty and trainees.

Dr. Jessica Bloomgarden won the 2008 Earl C. Elkins Scholarship award recognizing the highest achievement on Part 1 (written examination). There have been six Elkins award winners (there have been a total of 40) who have completed the UMDNJ PM&R Residency Training Program. Four Elkins Award winners completed the University of Washington program and three completed the Ohio State University program. Other programs have won once or twice. This year Dr. Brett Gertsman was elected president of the American Academy of Physical Medicine and Rehabilitation (AAPM&R) Resident Physician Council, and Dr. James Wyss was elected president of the Association of Academic Physiatrists (AAP) Resident Physician Council. Dr. Wyss has also been elected as one of the two PM&R resident representatives to the Organization of Residency Representatives (ORR) for the Association of American Medical Colleges (AAMC). This is a tribute to the quality of our residents and the opportunities this program affords its trainees.

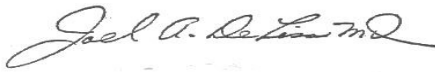
No progress has been made with respect to the site selection for the new Henry H. Kessler research building. This is in part due to the country's economic recession and stock market losses. It is hoped that a site selection will be made in 2010.

There is little news with respect to the department and Newark's University Hospital. New Jersey Medical School still has an interim dean and the hospital continues to run at a large deficit. It is hoped that both issues will be resolved in 2010.

I continue to be involved in national and international organized medicine. I have completed my term as chair of the Council of Academic Societies of the Association of American Medical Colleges. I have another year to 16 months as chair of the American Board of Medical Specialties. ABMS takes a lot of my time. I'm also chair for another 18 months of the International Society of Physical and Rehabilitation Medicine (ISPRM).

I would like you to consider giving a generous tax-deductible gift to our Residency Training Fund. We use these donated funds to “extras” that we would not otherwise be able to afford. For example, last year we purchased software for a web-based resident evaluation system that has dramatically improved the quality of feedback we receive about the performance of our trainees and our faculty. Please make your check payable to the “PM&R Residency Training Fund” and mail it to my Newark address located on the cover page. I would also very much appreciate receiving your nominations for our Alumnus of the Year award for 2009.

Best regards,



Joel A. DeLisa, M.D., M.S.
Professor and Chair



*f*rom the residency director...

Greetings all, and happy holidays!

Well, another year is drawing to a close here, marking 3½ years since I became Residency Program Director. I am reminded this time of year what a great program we have (thanks to applicants asking “why do you think this is such a great program?”). I believe that our clinical care is our greatest strength; not only do we have world-class facilities like Kessler Institute (highly ranked by US News and World Report), but we have phenomenal teaching faculty. And our patient populations are so diverse, thus enriching the learning environment. After all, I believe great physicians continually learn from their patients...! And the quality of the training really shows: look at our Board Scores, Elkin’s winners, and where our resident land for their fellowships! These external markers of success really show that we are able to train the best and brightest PM&R residents in the country. You can go to our website and read more about these accomplishments at http://njms.umdnj.edu/departments/physical_medicine_rehabilitation/residency/graduates.cfm

or http://njms.umdnj.edu/departments/physical_medicine_rehabilitation/residency/resident_awards.cfm.

Interviews are well underway, with six of our twelve interview days for the season completed. We have invited

96 applicants to interview, and will be interviewing through January 9th.

I made a table for us to look at the trends in applicants over the past few years.

Interviewees	2006-2007	2007-2008	2008-2009
# of applicants (for # of positions)	326 (7)	365 (10)	352 (8)
US graduates	159	199	170
Osteopaths	48	74	71
UMDNJ (all schools)	12	19	16
# invited for interview	103	96	96

They are a great group of candidates, with more AOA and SSP members than ever before, as well as higher USMLE and COMLEX scores. We interview eight candidates per day, and each one gets to interview with one of our wonderful chief residents as well as with me. They also get two other faculty interviews, and lunch with the residents. Kessler’s “new” (now one year old) facility is the highlight of the tour!

Planning is in progress for the Annual Board Review Course. This promises to be an outstanding course, and as usual our seniors and fellows will be able to attend the entire course. We invite you to remember that this course may be useful to those of you who are studying for the ABPM&R Maintenance of Certification (MOC) exam. We will send out course brochures to our alumni, as the material covered will help you to prepare for your MOC exam.

Hopefully, you have fond memories of your time spent here in training, and you will consider contributing a financial gift to the residency program. Your contributions allow me to ensure the residency has funds to support resident activities. Even a small donation will help me fund the things that I think are important for the residents. An example of what I would like to use donations for is purchasing more simulation models for injections, or software to teach the six competencies in an interactive manner.

I always like to hear how well this residency prepared you for practice, but even more so I would greatly appreciate your input on what we DIDN’T teach you that you really needed to know. Please feel free to contact me by phone (973) 972-4478 or email garstasv@umdnj.edu to give me your suggestions on how we can ensure that this residency program remains the best in the country!

Again, best wishes for the holiday season, and happy New Year!

Susan V. Garstang, M.D.
Residency Program Director

Note: for those of you alumni out there who may be seeking a job change, please be aware that I keep every job offer that comes into this office (several per month), from all over the country. I'd be happy to share these with you at your request. Just email or call me with preferred location or job type, and I'll send you the information.



Teaching Medical Students
Patrick Foye, M.D.,
Director of Medical Student Education

Our PM&R department continues to be very actively involved in teaching medical students here at New Jersey Medical School. In fact, we currently teach within all four years of the medical school curriculum. Within the first and second year courses (CORE-1 and CORE-2, formerly "ICS"), we teach musculoskeletal physical exam skills. These sessions involve not only lecturing, but also running more than 30 hands-on small group workshops where the students learn and practice various musculoskeletal and neurologic physical exam maneuvers. While logistically this is a large undertaking for a relatively small department like ours, we are happy to fill the niche and help train tomorrow's physicians. Also, students greatly appreciate these sessions. Indeed many NJMS students who choose to do residency training in PM&R often comment that their first PM&R exposure/awareness was in these 1st/2nd year courses. For third year medical students, we offer clinical electives. For fourth year students, we have an ever-increasing number of elective rotations that are highly sought after by scores of students from NJMS and around the country. These electives include a variety of both clinical rotations and research rotations.

Meanwhile, for all fourth year NJMS students, we continue to provide the two-week mandatory clinical clerkship. Part of why I love being Clerkship Director is that it was within this same clerkship ~17 years ago that I myself decided to choose PM&R as my career specialty. But the clerkship is intended/geared for students who are NOT entering PM&R, to teach them valuable lessons in caring for patients with acute and chronic disabilities. While our two-week PM&R clerkship has been a mandatory requirement for all NJMS students for decades, we continually work to

improve on its successes. We have gradually been converting some of our traditional lectures into narrated PowerPoint presentations and other computer-based media, to allow for more "independent learning" by the students (while freeing up more time for them to be at their clinical rotation sites). We implemented an innovative Musculoskeletal Competency Checklist, which ensures that every student receiving his/her M.D. from NJMS has demonstrated competency in performing and understanding 31 musculoskeletal physical exam skills comprising the upper limbs, lower limbs, etc.

Our department embraces the work required to maintain, improve, and expand our educational contributions for NJMS students. Many thanks are due to those involved. Firstly, of course, kudos to our Chair's leadership in making this a priority. Next, I would like to personally thank Peter Yonclas, M.D., Assistant Professor of PM&R (a graduate of our school and residency), who recently completed years of excellent service as Co-Director of the clerkship. We also appreciate the entire faculty throughout the various sites, for their role in precepting these students. The resident physicians also play a huge role, which we formally acknowledge each June at the graduation dinner, where we present the Resident As Teacher award. (The 2008 recipient was Maya Capoor Evans, M.D.) Even the students themselves deserve credit, especially with the PM&R Student Interest Group, which was resurrected last year and has been extremely active in running disability-related movie nights, speaker programs, educational workshops and pre-exam review sessions for first-year students, etc.

Thus, in summary, our department's commitment and involvement in teaching our medical students remains vibrant. We thank all who make this possible, and we look forward to 2009 and beyond.

The following awards were presented in 2008 by the PM&R Department.



Mark your calendar:

April 23 – May 1, 2009

➤ **PM&R Board Review Course**

June 9-10, 2009

➤ **New Jersey PM&R Teacher of the Year Award and Graduation**

February 2009 (TBD)

➤ **Prosthetics and Orthotics Course**



FACULTY & ALUMNI NEWS

Dr. Davis shares with us that their new book, authored by himself, **Brian Davis, M.D. ('96)**, Dr. Alan Miller, M.D., and **Kimberly Heckert, M.D. ('08)**, "The 3-Minute Musculoskeletal & Peripheral Nerve Exam," is now available at Demos Medical Publishing and on Amazon.com. It is their hope that this book is a helpful tool for students, residents, and faculty.

Faculty Appointments

James F. Sumowski, Ph.D. is a postdoctoral fellow in the Neuropsychology & Neuroscience Laboratory of the Kessler Foundation Research Center. Dr. Sumowski studied School Psychology and Clinical Neuropsychology at Columbia University, and completed an internship in Clinical Neuropsychology at North Shore University Hospital / Long Island Jewish Medical Center. His current research examines patterns of neuropsychological functioning and functional neuroimaging associated with Multiple Sclerosis (MS), with a specific interest in how these patterns are moderated by cognitive reserve. In a separate line of research on cognitive rehabilitation, Dr. Sumowski seeks to apply robust memory phenomenon from the cognitive psychology literature to improve memory functioning among persons with neurologically-based memory impairment.

Karen Hwang, Ed.D. is a graduating postdoc in the SCI Outcomes Research Department under the supervision of Dr. David Tulskey. Her recent and ongoing research interests include romantic attachment in physical disability, religion/secularism in rehabilitation and health, and access to healthcare for people with disabilities. In 2007, Dr. Hwang received a Switzer Fellowship Training Grant to study access, coordination and quality of healthcare services for people with chronic SCI.

Faculty Awards/Honors

Joel A. DeLisa, M.D., M.S., was one of six doctors who were named as 2008 Gold Humanism Honor Society (GHHS) National Honorees. The awards were recently presented in San Antonio during a recognition ceremony at the annual meeting of the Association of American Medical Colleges (AAMC). This is the third year this award has been given. This prestigious award is given to those individuals who lead by example, influence innovation and commitment to assessing physicians' humanism and professional behaviors, and who make a difference on behalf of the profession of medicine.

Anna Barrett, M.D., Early Career Award, International Neuropsychological Society, 2008

Carol Gill, M.D., Selected VANJHCS Planetree Physician

Champion, 2008

Voted by their peers and listed as New Jersey's Top Doctors in New Jersey Monthly magazine as the four top physiatrists are **Gerard Malanga, M.D. ('92)**; **Gregory Mulford, M.D.**; **John Shumko, M.D. ('96)**; and **Todd Stitik, M.D. ('94)**. Three of the four are alumni of our residency program.

Todd P. Stitik, M.D. has been selected to the Editorial Board of Women's Health in Osteopaedics.

Faculty Publications

Articles

Yu X, Tsibane T, McGraw PA, House FS, Keefer CJ, Hicar MD, Tumpey TM, Pappas C, Perrone LA, Martinez O, Stevens J, Wilson IA, Aguilar PV, **Altschuler EL**, Basler CF, Crowe JE Jr. Neutralizing antibodies derived from the B cells of 1918 influenza pandemic survivors. *Nature*. 2008;455:532-536.

Altschuler EL, Hu J. Mirror therapy in a patient with a fractured wrist and no active wrist extension. *Scand J Plast Reconstr Surg Hand Surg*. 2008;42:110-1.

Altschuler EL. Play with online virtual pets as a method to improve mirror neuron and real world functioning in autistic children. *Med Hypotheses*. 2008;70:748-749.

Huang AE, Hon AJ, **Altschuler EL**. Thickness and the Koffka ring effect. *Perception*. 2008;37(9):1458-60.

Liang C, **Armento M**. Symptomatic Spinal Intradural Arachnoid Cyst and Tarlov Cyst in 12 yr-old male: case report and literature. *Am J Phys Med Rehabil* 2008; March;87(3)S43-44.

Suri P, Burns SP, **Bach JR**. Pneumothorax associated with mechanical insufflation-exsufflation and related factors. *Am J Phys Med Rehabil*. 2008;87:951-955.

Ishikawa Y, **Bach JR**, **Komaroff E**, Miura T, Jackson-Parekh R. Cough augmentation in Duchenne muscular dystrophy. *Am J Phys Med Rehabil*. 2008;87:726-730.

Bach JR, Mahajan K, Lipa B, Saporito L, Concalves M, **Komaroff E**. Lung insufflation capacity in neuromuscular disease. *Am J Phys Med Rehabil*. 2008;87:720-725.

Bach JR, Concalves M, Eisenberg M, Ishikawa Y, **Altschuler E**, Winck JC, **Komaroff E**. A ventilator requirement index. *Am J Phys Med Rehabil*. 2008;87:285-291.

Bach JR. The use of mechanical ventilation is appropriate in children with genetically proven spinal muscular atrophy type 1: the motion for. *Paediatr Respir Rev*. 2008;9:45-50; quiz 50; discussion 55-6.

Petterson SC, **Barrance P**, Buchanan T, Binder-Macleod S, Snyder-Mackler L. Mechanisms underlying quadriceps weakness in knee osteoarthritis. *Med Sci Sports Exerc.* 2008;40:422-7.

Adair JC, **Barrett AM**. Spatial neglect: clinical and neuroscience review: a wealth of information on the poverty of spatial attention. *Ann N Y Acad Sci.* 2008;1142:21-43.

Garza JP, Eslenger PJ, **Barrett AM**. Perceptual-attentional and motor-intentional bias in near and far space. *Brain Cogn.* 2008;68:9-14.

Jones KE, Craver-Lemley C, **Barrett AM**. Asymmetrical visual-spatial attention in college students diagnosed with ADD/ADHD. *Cogn Behav Neurol.* 2008;21:176-8.

Barrett AM, Craver-Lemley CE. Is it what you see, or how you say it? Spatial bias in young and aged subjects. *J Int Neuropsychol Soc.* 2008;14:562-70.

Mordkoff JT, Halterman R, **Chen P**. Why does the effect of short-SOA exogenous cuing on simple RT depend on the number of display locations? *Psychon Bull Rev.* 2008;15:819-824.

Chen P, Moore C, Mordkoff JT. On the spatial metric of short-SOA costs of exogenous cuing. *Am J Psychol.* 2008;121:229-240.

Chiaravalloti ND, **DeLuca J**. Cognitive impairment in multiple sclerosis. *Lancet Neurol.* 2008;7:1139-1151.

Goverover Y, **Chiaravalloti N**, **DeLuca J**. Self-generation to improve learning and memory of functional activities in persons with multiple sclerosis: meal preparation and managing finances. *Arch Phys Med Rehabil.* 2008;89:1514-1521.

Myers CE, Hopkins RO, **DeLuca J**, Moore NB, Wolansky LJ, Sumner JM, Gluck MA. Learning and generalization deficits in patients with memory impairments due to anterior communicating artery aneurysm rupture or hypoxic brain injury. *Neuropsychology.* 2008;22:681-686.

DeLuca J, Genova HM, Hillary FG, **Wylie G**. Neural correlates of cognitive fatigue in multiple sclerosis using functional MRI. *J Neurol Sci.* 2008;270:28-39.

Kalmar JH, Gaudino EA, Moore NB, **DeLuca J**. The relationship between cognitive deficits and everyday functional activities in multiple sclerosis. *Neuropsychology.* 2008;22:442-449.

Brose SW, Boninger ML, Fullerton B, McCann T, Collinger JL, Impink PG, **Dyson-Hudson TA**. Shoulder ultrasound abnormalities, physical examination findings, and pain in

manual wheelchair users with spinal cord injury. *Arch Phys Med Rehabil.* 2008;89:2086-2093.

Shah RR, Haghpanah S, **Elovic EP**, Flanagan SR, Behnager A, Nguyen V, Page SJ, Fang ZP, Chae J. MRI findings in the painful poststroke shoulder. *Stroke.* 2008;39:1808-1813.

Elovic EP, Brashear A, Kaelin D, Liu J, Millis SR, Barron R, Turkel C. Repeated treatments with botulinum toxin type a produce sustained decreases in the limitations associated with focal upper-limb poststroke spasticity for caregivers and patients. *Arch Phys Med Rehabil.* 2008;89:799-806.

Flanagan SR, Kwasnica C, Brown AW, **Elovic EP**, Kothari S. Congenital and acquired brain injury. 2. Medical rehabilitation in acute and subacute settings. *Arch Phys Med Rehabil.* 2008 ;89:S9-S14.

Brown AW, **Elovic EP**, Kothari S, Flanagan SR, Kwasnica C. Congenital and acquired brain injury. 1. Epidemiology, pathophysiology, prognostication, innovative treatments, and prevention. *Arch Phys Med Rehabil.* 2008;89:S3-S8.

Kothari S, Flanagan SR, Kwasnica C, Brown AW, **Elovic EP**. Congenital and acquired brain injury. 5. Emerging concepts in prognostication, evaluation, and treatment. *Arch Phys Med Rehabil.* 2008;89:S27-S31.

Elovic EP, Kothari S, Flanagan SR, Kwasnica C, Brown AW. Congenital and acquired brain injury. 4. Outpatient and community reintegration. *Arch Phys Med Rehabil.* 2008;89:S21-S6.

Kwasnica C, Brown AW, **Elovic EP**, Kothari S, Flanagan SR. Congenital and acquired brain injury. 3. Spectrum of the acquired brain injury population. *Arch Phys Med Rehabil.* 2008;89:S15-S20.

Elovic EP, Jasey NN Jr, Eisenberg ME. The use of atypical antipsychotics after traumatic brain injury. *J Head Trauma Rehabil.* 2008;23:132-135.

Banerjea R, Sambamoorthi U, Weaver F, Maney M, Pogach LM, **Findley T**. Risk of stroke, heart attack, and diabetes complications among veterans with spinal cord injury. *Arch Phys Med Rehabil.* 2008;89:1448-1453.

Chaudry H, Schleip R, Ji Z, Bukiet B, Maney M, **Findley T**. Three-dimensional mathematical model for deformation of human fasciae in manual therapy. *J Am Osteopath Assoc.* 2008;108:379-390.

Shen Y, Findley PA, Maney M, Pogach LM, Crystal S, Rajan M, **Findley TW**. Department of Veterans Affairs-Medicare dual beneficiaries with stroke: Where do they get care? *J Rehabil Res Dev.* 2008;45:43-52.

Sisto SA, **Forrest GF**, Faghri PD. Technology for mobility and quality of life in spinal cord injury. *IEEE Eng Med Biol Mag*. 2008;27:56-68.

Forrest GF, Sisto SA, Asselin P, Mores J, Bond Q, LaFountaine MF, Harkema S. Locomotor training with incremental changes in velocity: muscle and metabolic responses. *Top Spinal Cord Inj Rehabil*. 2008;14:16-22.

Kamin S, **Garstang S**. Vascular Disease of the Spinal Cord. *Top Spinal Cord Inj Rehab*. 2008;14(2)42-52.

Marino RJ, Jones L, **Kirshblum S**, Tal J, Dasgupta A. Reliability and repeatability of the motor and sensory examination of the International Standards for neurological Classification of Spinal Cord Injury. *J Spinal Cord Med*. 2008;31:166-170.

Kirshblum S, Fichtenbaum J. Breaking the news in spinal cord injury. *J Spinal Cord Med*. 2008;31:7-12.

Lequerica AH, Forschheimer M, Tate DG, Roller S, Toussaint L. Ways of coping and perceived stress in women with spinal cord injury. *J Health Psychol*. 2008;13:348-354.

Votruba KL, Rapport LJ, Vangel SJ Jr, Hanks RA, **Lequerica A**, Whitman RD, Langenecker S. Impulsivity and traumatic brain injury: the relations among behavioral observation, performance measures and rating scales. *J Head Trauma Rehabilitation*. 2008;23:65-73.

Yochim BP, **Lequerica A**, MacNeill SE, Lichtenberg PA. Cognitive initiation and depression as predictors of future instrumental activities of daily living among older medical rehabilitation patients. *J Clin Exp Neuropsychol*. 2008;30:236-244.

Duggan CH, Albright KJ, **Lequerica A**. Using the ICF to code and analyse women's disability narratives. *Disabil Rehabil*. 2008;30:978-990.

Malanga G, Reiter RD, Garay E. Update on tizanidine for muscle spasticity and emerging indications. *Exp Opin Pharmacother*. 2008;9:2209-2215.

Malanga GA, Ramirez-Del Toro JA. Common injuries of the foot and ankle in the child and adolescent athlete. *Phys Med Rehabil Clin N Am*. 2008;19:347-371.

Malanga G, Wolff E. Evidence-informed management of chronic low back pain with trigger point injections. *Spine J*. 2008;8:243-252.

Malanga G, Wolff E. Evidence-informed management of chronic low back pain with nonsteroidal anti-inflammatory drugs, muscle relaxants and simple analgesics. *Spine J*.

2008;8:173-184.

O'Brien AR, Chiaravalloti N, Goverover Y, **Deluca J**. Evidenced-based cognitive rehabilitation for persons with multiple sclerosis: a review of the literature. *Arch Phys Med Rehabil*. 2008;89:761-769.

Stitik T, Kezi A, Jong-Hyun Kim. Synvisc in Knee Osteoarthritis. *Future Rheumatol*. 2008; 3(3); 215-222.

De Sanctis P, Katz R, **Wylie GR**, Sehatpour P, Alexopoulos GS, Foxe JJ. Enhanced and bilateralized visual sensory processing in the ventral stream may be a feature of normal aging. *Neurobiol Aging*. 2008;29:1576-1586.

Wylie GR, Foxe JJ, Taylor TL. Forgetting as an active process: an fMRI investigation of item-method-directed forgetting. *Cereb Cortex*. 2008;18:670-682.

Commentaries

Kast RE, **Altschuler EL**. The earliest example of the hyperactivity subtype of attention deficit hyperactivity disorder (ADHD) in Jan Steen's 'The Village School' (c. 1670). *S Afr Med J*. 2008;98:594-595.

Holcombe AO, **Altschuler EL**, Over HJ. A developmental theory of synaesthesia, with long historical roots: A comment on Hochel & Milan (2008). *Cogn Neuropsychol*. 2008 Oct 1:1.

Altschuler EL. Brain contusion/sudden cardiopulmonary arrest syndrome in A Painful Case from James Joyce's Dubliners. *S Afr Med J*. 2008;98:442.

Altschuler EL. Doping: similar problems arise in medical clinics.. *Nature*. 2008;455(7210):167.

Dyson-Hudson TA, Komaroff E. Acupuncture study hypotheses should rely on scientific, not imaginary, models. Author reply. *Arch of Phys Med & Rehab*. 2008;89(1), 194-5.

Chaudry H, **Findley T**. Comment on "Physical properties of a single polymeric nanofiber". *Appl Phys Lett*. 2008;93:166101-1.

Gans BM. Impact of the "60% rule" on inpatient medical rehabilitation. *Am J Phys Med Rehabil*. 2008;87:255-257.



Letters to the Editor

Kast RE, **Altschuler EL**. Both etanercept and infliximab can elevate tumor necrosis factor (TNF)-alpha and be the cause of treatment related new onset disease: the need to measure circulating TNF-alpha. *J Rheumatol*. 2008;35:1679.

Kast RE, **Altschuler EL**. Intraperitoneal lavage with imiquimod to eliminate epithelial ovarian cancer micro metastases. *Med Hypotheses*. 2008;70:1223-4.

Altschuler EL, Kariuki YM. Did the 1918 flu virus cause the Black Death? *Med Hypotheses*. 2008; 71:986-987.

Edwards WT. Correspondence Reply to L.A. Rozendaal and A.J. van Soest regarding "Effect of joint stiffness on standing stability". *Gait Posture*. 2008;28:528-529.

Foye PM. Dextrose prolotherapy for recalcitrant coccygodynia fractures. *J Orthop Surg (Hong Kong)*. 2008;16:270.

Foye PM. Ganglion impar blocks via coccygeal versus sacrococcygeal joints. *Reg Anesth Pain Med*. 2008;33:279-280.

Foye PM. Safe Ganglion Impar Blocks for Visceral and Coccyx Pain. *Techniques in Regional and Pain Management*. 2008; 12:122-123.

Foye PM. Genetic testing for all forms of myotubular/centronuclear myopathy. *Clin Neuropathol*. 2008;27:113.

Books

DeLuca J, Kalmar JH, eds. *Information Processing Speed in Clinical Population (Studies on Neuropsychology, Neurology and Cognition)*. New York, NY: Taylor and Francis; 2008.

Schultheis MT, **DeLuca J**, Chute DL, eds. *Handbook for the Assessment of Driving Capacity*. Amsterdam; Boston: Academic Press/Elsevier; 2009.

Book Chapters

Garrett B, Shatzer H, **Bach JR**. Respiratory treatment and equipment. In: Sisto SA, Druin E, Sliwinski MM, eds. *Spinal Cord Injuries: Management and Rehabilitation*. St. Louis: Mosby/Elsevier; 2009: 69-103.

Kalmar JH, **Chiaravalloti N**. Information processing speed in multiple sclerosis: assessment and treatment. In: DeLuca J, Kalmar JH, eds. *Information Processing Speed in Clinical Population*. New York, NY: Taylor and Francis; 2008:153-172.

Aronoff GM, Bruns D, **Cole JL**, et al, for Chronic Pain Panel

Members. Chronic pain In: Hegman KT, Feinber SD, Genovese E, Korevaar WC, Mueller KL, eds. *ACOEM's Occupational Medicine Practice Guideline*, 2nd Ed., Elk Grove Village, IL: American College of Occupational and Environmental Medicine; 2008: Chap. 6.

Gracies JM, **Elovic E**, Zorowitz R, McGuire J, Simpson D. Traditional pharmacologic treatments for spasticity. Part I: Local treatments. In Brashear A, Mayer NH, eds. *Etiology, Evaluation, Management and the role of Botulium Toxin*. New York, NY: We Move; 2008:57-78.

Gracies JM, **Elovic E**, Zorowitz R, McGuire J, Simpson D. Traditional pharmacologic treatments for spasticity. Part II: Systemic treatments. In Brashear A, Mayer NH, eds. *Etiology, Evaluation, Management and the role of Botulium Toxin*. New York, NY: We Move; 2008: 79-109.

Faghri PD, **Garstang SV**, Kida S. Functional electrical stimulation. In: Sisto SA, Druin E, Sliwinski MM, eds. *Spinal Cord Injuries: Management and Rehabilitation*. St. Louis: Mosby/Elsevier; 2009:407-429.

Kirshblum S, **Benevento B**. Understanding spinal cord injury and advances in recovery. In: Sisto SA, Druin E, Sliwinski MM, eds. *Spinal Cord Injuries: Management and Rehabilitation*. St. Louis: Mosby/Elsevier; 2009:1-17.

Kirshblum S. Medical management and complications of spinal cord injury. In: Sisto SA, Druin E, Sliwinski MM, eds. *Spinal Cord Injuries: Management and Rehabilitation*. St. Louis: Mosby/Elsevier; 2009:18-36.

Vocaturro LC. Psychological adjustment to spinal cord injury. In: Sisto SA, Druin E, Sliwinski MM, eds. *Spinal Cord Injuries: Management and Rehabilitation*. St. Louis: Mosby/Elsevier; 2009:104-120.

New Faculty Grants Since Our Last Issue

Anna Barrett, M.D., received a R01 grant, "Building a Science for Treatment of Spatial Neglect." 9/01/08 to 8/31/12. Total award: \$2,193,731.

Anna Barrett, M.D. Consultancy to O'Brien Technologies, Inc./Phase II/III. 10/15/08 to 11/30/09. \$95,257.

David Tulsy, Ph.D., received a NIDRR Supplement, "The Northern New Jersey Brain Injury System – TBI-QOL Collaborative Supplement." 10/1/08 to 9/30/09. Total funding: \$213,955

David Tulsy, Ph.D. "Measuring Quality of Life in Traumatic Brain Injury: The Next Generation of Instruments." NIDRR Supplement, 10/1/08 to 9/30/09. \$213,965

Paradigm Paralysis and Ignaz Philip Semmelweis *John Bach, M.D.*

“All truth passes through three stages.

First it is ridiculed.

Second, it is violently opposed.

Third, it is accepted as being self-evident.

Arthur Schopenhauer (1788-1860)

A surgeon general reported that there were 100,000 excess deaths in American hospitals, most of which due to ventilator associated pneumonias and other infections caused by lapses in cleanliness.

The Greek God of Medicine Asclepius' daughter Hygeia was credited with having discovered that diseases can be prevented by cleanliness. Around the same time the Egyptians, Babylonians, Indians, and Jews also spoke of the importance of hand washing and cleanliness. It was later discussed in Medieval Europe. In 1752 English physician general of the army John Pringle advocated cleanliness in his *Observations of the Diseases of the Army*. In 1843 Oliver Wendell Holmes suggested that infection was a possible cause of childbed fever and that infection was carried “from bed to bed as rat-killers carry their poison from one household to another.” Little attention was paid to Holmes, the Indians, or Hygeia.

In the late 18th century, Vienna was the center of western civilization and culture. It had a population of about 250,000. The Hapsburg armies had driven away the Turks. The Austro-Hungarian Empire had magnificent monasteries, Mozart and Haydn were active, and there was general peace and prosperity. At the same time there were 2000 to 10,000 prostitutes and 500 to 4000 kept mistresses and many single women. Unwed mothers accounted for one-half of all births. Poverty forced these women to deliver in charity hospitals where unmarried mothers were exposed to scorn and ridicule. In August 1784 a 100 year old poor house for orphans, infirm, and the aged was expanded into the Viennese General Hospital. The hospital accommodated 2000 patients and had 20 physicians and 140 attendants who slept in the same rooms with the patients.

Diseases were classified by their symptom groupings. Epidemics were thought to be caused by a noxious atmosphere. The prevailing paradigm was that diseases were caused by deviations from normal life, e.g. excesses of humidity, temperature, exercise, rich food, work, and so on, as was the thinking 2000 years earlier. Disease involving fever and inflammation were associated with excessive heat as was overeating and exercise so the

treatment was to reduce the heat, “antiphlogistic regimen”. Treatments included dietary restrictions, laxatives, emetics, cooling lotions, and blood letting. Diseases associated with weakness, overwork, and undernourishment were treated by tonics, alcohol, rest, and rich foods, “supportive therapy”. Patients have elements of both fever and malnourishment were first given supportive and later antiphlogistic therapy. The latter was largely blood letting. Leeches were used for virtually all conditions and diseases including pre-surgery and for treating hemorrhages. As many as 50 leeches would be placed on all body surfaces including the mouth, vagina, and rectum. Those in the mouth might migrate to the airway and cause suffocation. Leeches also carried diseases like syphilis between patients.

Surgery was performed at the patient's bedside and without anesthesia. Fifty percent of all surgical patients died. Surgeons, considering themselves gentlemen, could not conceive of their hands being “dirty” and, so, often did not wash them. Caesarian sections were performed to save the child of a certainly dying mother. Poor woman often had rickets. This caused restricted birth canals and made vaginal deliveries and survival even less likely. In 88 years from opening in 1784, the Vienna General Hospital had 1.4 million admissions of which 14% died. This provided 6 cadavers per day for medical students. The students spent so much time in the morgue that they also hung out there when not otherwise occupied. They often went from the morgue with their clothing oozing or stained with cadaver tissues directly to deliver babies. Such stained clothing was considered a “badge of distinction” for the students.

In the 1830s the Vienna General Hospital became the foremost research and teaching hospital in Europe because of use of the stethoscope, chest physical diagnosis methods like percussion, and correlations with pathological anatomy on autopsies. However, much of the faculty disdained these methods and concentrated on miasma (toxic atmosphere) and other factors for etiology of disease. Johannes Klein became in charge of the obstetrical ward in 1822 and deaths from childbed fever soared to 5 to 10%, still among the lowest in Europe where some hospitals had 100% mortality rates over an up to 3 year period. His service was separated into one managed by midwives who did no autopsies, and a larger one managed by physicians who did. Death rates were 10 times higher in the physician ward. Besides delivering babies after working on cadavers, they also performed vaginal examinations on multiple, often as many as 20 women per day. Death rates were 10 times higher for women delivering in the hospital than for those delivering

on the streets or at home. In the 18th and 19th centuries poor women who could not afford midwives went to hospitals to deliver children. The service accommodated 800 women and was usually full. Neonatal and perinatal mortality was also 80% at the hospital but much lower at home.

Childbed (puerperal) fever became apparent 2 to 4 days after confinement and killed over 50% of those affected in 2 weeks. Physicians blamed the air of the more crowded physician-managed service. They blamed girdles, sedentary lifestyle, diet, patients' friends, bed coverings, engorged breasts, bad air, retention of menstruation, cold drinks, patients' interests, and so on.

In 1847 a 27 year old Hungarian obstetrician working at the Allgemeines Krankenhaus in Vienna, Ignaz Philipp Semmelweis (b. July 1, 1818 - d. August 13, 1865), lost a pathologist colleague and friend Jacob Kolletschka when he was accidentally pricked by a knife when doing a post-mortem examination and died from a generalized infection that resembled that which was killing the women delivering babies in crowded hospital wards. Semmelweis had been taught as a student in Hungary that disease symptoms were manifestations of diseased organs and not the wrath of God. Semmelweis realized that mortality rates were highest when babies were delivered by medical students who also performed autopsies and lower when performed by midwives who did not do so. He realized that, even though they washed their hands, the students and faculty must have been bringing "invisible cadaver particles" that were absorbed into the mothers' blood as they had been for his colleague, resulting in their deaths. The microscope had been around since the early 1600s but Semmelweis was apparently unaware of it and pathologists felt that it was useless until Pasteur saw the organisms that caused puerperal fever in 1879. The doctors did not change their soiled clothing or use disinfectants and could not believe that the enormity of the problem was simply due to not being sufficiently clean. The women were dying from puerperal (childbed) fever, a generalized infection with skin abscesses, peritonitis, pleuritis, phlebitis, meningitis, and sepsis. The general thought was that the women were dying from "miasma" or noxious air related to weather or other atmospheric or electrical disturbances or possibly the strain of young women being "exposed" to male doctors even though many of these women were prostitutes. Semmelweis instituted an aggressive program of hand-scrubbing along with cleaning of surgical instruments with chlorine solution, cleaning of linen, and dressings such that cadaver smell was gone and within one month mortality was down to 2% from a baseline of 13 to 30%. He further demonstrated extraordinary reduction in neonatal mortality by using

antiseptic measures on pregnant animals. He realized with guilt that before discovering this that he himself had caused the deaths of numerous women. Guilt did not burden the Vienna medical establishment that paid no attention to the young Hungarian of the lowly occupation of obstetrics who was telling them that they were responsible for the deaths of so many women, in essence, making them feel ridiculous. Obstetrics was thought to be more appropriate for midwives. It was Semmelweis' third choice after pathology and medicine.

His boss, Johannes Klein, was unsympathetic to the Hungarian independence movement and wary of non-Austrians in general. Instead of promoting the life-saving measures that Semmelweis had defined, Klein, in an academic atmosphere strongly opposed to all innovation, dismissed him, and he was harassed until he returned to his native Pest, Hungary. There he got an unpaid post in obstetrics in May 1851, used his hygienic methods, and reduced mortality from over 10% to 1-2%. Meanwhile, chemist Justus von Liebig insisted that the women were dying from chemical rather than biological reasons and convinced Klein to cease the chlorine cleanings. Mortality rose again to over 10%.

Political and social paradigms prevented Klein and the Viennese from "seeing" Semmelweis' science. Semmelweis then published a book, "The Etiology, Concept, and Prophylaxis of Childbed Fever" in 1860 at age 42. Instead of resulting in the savings of the lives of thousands of women and babies, the book was ignored. Semmelweis' outrage resulted in him publishing letters denouncing specific European obstetricians as murderers. When he used a more moderate tone, he was ignored anyway. (Inglis 1965 p 164 cited in Great Feuds in Medicine). He was barred from publishing in major medical journals. "Semmelweis was not prepared to obey the conventions of polite medical disputation..." In July 1865 his irritating behavior resulted in his involuntary incarceration in an insane asylum. It was said that he became irrational July 13, 1865, worsened, and was incarcerated in a mental hospital of poor reputation on July 29, 1865 at age 47, brought there by trickery. The 3 physicians who signed the commitment paper were not trained in psychiatry. When he tried to escape, he was severely beaten and died from a resulting hand infection that became gangrenous leading to his death on August 13, 1865. No priest was called for the final sacraments. After his death, his assistants' applications for his former hospital post were rejected in favor of a man with no training in obstetrics and mortality rates increased over 600%. In Etiology he had said, "If I am not allowed to see this fortunate time (victory over puerperal fever deaths) with my own eyes...my death will nevertheless be brightened by the conviction that sooner or later this time

will inevitably arrive” (Robinson 1929, p. 644 cited in Great Feuds in Medicine). Semmelweis’ work paved the way for the understanding that contagious diseases were caused by microorganisms. Why does it continue to be so difficult for physicians to learn from the obvious evidence in front of their noses? You don’t believe me, yet? There will be more to come.



Graduating Post-Doctoral Fellows
John DeLuca, Ph.D., ABPP

The following Fellows have completed their Research Fellowships in the Department of Physical Medicine and Rehabilitation:

Margaret Schmitt, Ph.D., completed her post-doc fellowship from the Neuropsychology and Neuroscience Lab. During her fellowship, Dr. Schmitt conducted an independent line of research investigating the contribution of individual difference characteristics to positive aspects of adjustment to disability. Through her work with Nancy Chiaravalloti, Ph.D., and John DeLuca, Ph.D., ABPP, Dr. Schmitt expanded this line of research to include individuals with Multiple Sclerosis (MS), identifying self-efficacy as a predictor of functional outcomes in persons with MS. Dr. Schmitt’s diligent research earned her the Mitchell Rosenthal, Ph.D. Postdoctoral Fellow Research Award from the department. Dr. Schmitt has obtained a position as a staff psychologist position for the James A. Haley Veterans’ Hospital in the Spinal Injury Long-term Care Unit.

Gerald Voelbel, Ph.D., completed his post-doc fellowship in the Neuropsychology and Neuroscience Lab. Dr. Voelbel’s research concentrated on cognitive issues in traumatic brain injury and functional neuroimaging; in particular, near infrared spectroscopy. Dr. Voelbel obtained a position as an Assistant Professor at New York University in the Steinhardt School of Culture, Education, and Human Development for the Department of Occupational Therapy.

Nitin Moholkar, Ph.D., completed is post-doc fellowship in the Rehabilitation Engineering Analysis Laboratory (REAL). Dr. Moholkar’s research focused on balance and posture in health and injury, concentrating on patterns of motion on a moving platform and the response (EMG and ankle moment) of the ankle to rearward and rotational perturbation. Dr. Moholkar took some well-deserved time-off and is currently looking for a research position.

Karen Hwang, Ph.D., is completing her post-doctoral fellowship with KMRREC in the Spinal Cord Injury Lab. Dr. Hwang’s research focuses on “access, coordination, and quality of healthcare services for people with SCI. A Switzer

Training Fellowship awarded to her in October 2007 is funding Dr. Hwang’s research.

We want to thank all of our post-doctoral graduates for their dedication and hard work. The Department of PM&R at UMDNJ-New Jersey Medical School and Kessler Medical Rehabilitation Research and Education Center congratulate them all and wish them continued future success.



Too Much, Too Little

We have more degrees, but less common sense;
More knowledge, but less judgment.

We have more experts, but more problems.
More medicine, but less wellness.

We spend too recklessly,
Laugh too little,
Drive too fast,
Get too angry too quickly,
Stay up too late,
Read too little,
Watch TV too much,
And pray too seldom.

We’ve multiplied our possessions, but reduced our values.
We talk too much, love too little and lie too often.

We’ve learned to make a living but not a life.
We’ve added years to life, but not life to years.

We have taller buildings, but shorter tempers;
wider freeways, but narrower viewpoints.

We spend more, but have less.
We buy more, but enjoy it less.

We’ve been all the way to the moon, and back, but have trouble crossing the street to meet our neighbors.

We’ve conquered outer space, but not inner space.
We’ve split the atom, but not our prejudice.

We write more, learn less;
Plan more, but accomplish less.
We’ve learned to rush, but not to wait.
We have higher incomes, but lower morals.

We build more computers to hold more information,
To produce more copies, but have less communication.

We are long on quantity, but short on quality.

These are the times of fast foods and slow digestion;
Tall men and short characters.
More leisure and less fun;
More kinds of food, but less nutrition.

Two incomes, but more divorces;
Fancier houses, but broken homes.



A Baker's Delight

Chocolate-Peppermint Cookies



Makes 6 dozen

NEWLY MINTED Indulge in this version of the minty classic, with a holiday-inspired topping of crushed red-and-white candies.

- 1 cup all-purpose flour, plus more for surface
- 1/2 cup unsweetened Dutch-process cocoa powder
- 1/2 teaspoon baking soda
- 1/2 teaspoon baking powder
- 1/2 teaspoon salt
- 2½ ounces (5 tablespoons) unsalted butter, softened
- 3/4 cup sugar
- 1 large egg
- 1 large egg yolk
- 3/4 teaspoon pure peppermint extract
- 8 large candy canes or 30 peppermint candies, crushed
- 2 pounds white chocolate, coarsely chopped

1. Preheat oven to 325°. Sift flour, cocoa powder, baking soda, baking powder, and salt into a bowl. Beat butter and sugar with a mixer on medium-high speed for 1 minute. Reduce speed to medium-low, and add egg, then yolk, beating well after each addition. Beat in peppermint extract. Slowly add flour mixture, and beat until just incorporated. Shape dough into 2 disks, wrap each in plastic, and refrigerate until firm, at least 1 hour (or up to 2 days).
2. Roll out 1 disk of dough on a lightly floured surface to 1/8-inch thickness. Freeze until firm, about 15 minutes. Using a 2-inch round cutter, cut out circles, and place 1 inch apart on parchment-lined baking sheets. Roll and cut scraps once. Freeze cookies until firm, about 15 minutes. Repeat with remaining disk.
3. Bake until cookies are dry to the touch, about 12 minutes. Transfer parchment, with cookies, to wire racks, and let

cool. (Undecorated cookies will keep, covered, for up to 3 days).

4. Sift crushed candy, and separate larger pieces from dust, reserving both. Melt chocolate in a heatproof bowl set over a pot of gently simmering water. Remove from heat. Dunk cookies into melted chocolate. Using a fork, turn to coat, let excess drip off, and gently scrape bottom against edge of bowl. Place on parchment-lined baking sheets, and sprinkle ¼ teaspoon of either candy pieces or dust on top. Repeat, sprinkling half the cookies with pieces and the rest with dust. Refrigerate until set, up to 3 hours. Decorated cookies are best served the same day.

Compliments of Martha Stewart Living

For the pooch in your family...

Christmas Dog-erations



These festive cheese and cranberry cookies can be tied with ribbon and hung on the Christmas tree for the 12 days of Christmas – if they last that long. Leave one on a plate with a glass of milk for Santa Paws, too!

Makes 30-40
Preparation time: 30 minutes, plus hardening
Cooking time: 25-30 minutes

- 10 oz wholemeal wheat- and gluten-free flour
- 4 fl oz olive oil
- 7 oz low-fat Cheddar cheese, grated
- 3 oz dried cranberries, chopped
- 1 tablespoon chopped mint
- 3½ oz cold water
- 1 egg, beaten, to glaze

For the frosting:
8 oz low-fat cream cheese
4 tablespoons olive oil
Natural red food coloring

1. Place all the cookie ingredients, except the water, in a large bowl and mix until thoroughly combined. Slowly add the measured water to make a smooth dough. Knead the dough on a lightly floured surface until firm and then roll out to 1/4 inch thick.
2. Cut out shapes with a festive cookie cutter. Use a skewer to make a hole approximately ¼ inch (5 mm) in diameter in each cookie, through which to thread the ribbon. Transfer the cookies to a greased baking sheet, spaced ½ inch (1 cm) apart, and brush with egg.

3. Bake the cookies in a preheated oven, 325°F for 25-30 minutes until firm to the touch. Remove from the oven and leave to cool and harden for 1-2 hours.
4. To make the frosting, beat together the cream cheese, oil and food coloring until fluffy. Transfer to a piping bag fitted with a fine nozzle and use to decorate the cookies. Refrigerate for 2-3 hours. Thread each cookie with a piece of ribbon approximately 6 inches long and hang from the tree.

Taken from Pupsnacks by Stephanie Mehanna

