ALUMNI PULSE

UMDNJ-New Jersey Medical School
Department of Physical Medicine and Rehabilitation
August 2009

✦✦✦✦✦

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

The external Accreditation Council on Graduate Medical Education (ACGME) PM&R Residency Review Committee (RRC) reviewed our residency training program on May 6, 2009 and the Spinal Cord Injury Medicine subspecialty training program on May 7th. We should find out the results after the August RRC Meeting. We are obviously hoping for a five-year accreditation, which is the maximum a program can receive.

The new residents and fellows have arrived. Their information is on page 5. The graduating trainees and where they are going is also presented on page 5. This was an outstanding group and we will miss them.

Dr. Susan Garstang is moving her clinical practice to the Veterans Affairs New Jersey Health Care System (VANJHCS), but will still continue as our Residency Program Director. This is an opportunity for her to be more involved in teaching medical students and residents during clinical activities. She will remain on faculty at the New Jersey Medical School.

Our trainees have made 62 academic presentations and national meetings and they have had 15 peer-reviewed publications within the last three years. One of our residents is President of the Residents and Fellows Council of the American Academy of Physical Medicine and Rehabilitation, and another resident is the President of the Residents and Fellows Council of the Association of Academic Physiatrists. He is also one of two PM&R resident representatives to the Organization of Resident Representatives of the AAMC.

We currently have 26 residents: 11 at the Kessler Institute; 8 at the VA NJ Health Care System; 4 at University Hospital; 2 at Children's Specialized Hospital; and one at Mountainside Hospital.

We are beginning the accreditation process for a Pediatric Rehabilitation Medicine Fellowship (Children's Specialized Hospital) and a Neuromuscular Fellowship (VANJHCS). We currently have a Musculoskeletal/Pain Medicine and an SCI Fellowship. We did not fill the Stroke or the TBI Fellowships this academic year (2009-2010).

We continue to put on our annual Board Review Course. This was our 21st course. We had 207 participants (189 paying) from 24 states, as well as participants from Canada, Puerto Rico, Barbados and Israel.

No significant progress has been made with respect to the new Henry Kessler Research building. The Kessler Research Foundation employees have been awarded about $2.5 million in new research grants for the period of January 2009 through June 8th. Elie Elovic resigned to become the PM&R Chair at the University of Utah. There is an active search using a search firm to fill this important Research Laboratory (TBI) Director.

The Veterans Affairs New Jersey Health Care System is growing as the Federal Government is putting significantly more resources into this health care system (page 12).

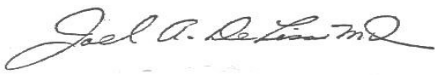
Our medical student clerkships (mandatory and elective) are going very well. Eleven UMDNJ-NJMS students matched in Physiatry as their career choice (2008-2009). Our medical student PM&R Interest Group is very energetic, and this has raised the interest of medical students in our specialty early in their schooling.

Congratulations to the Kessler Institute for Rehabilitation for its #2 rank with respect to rehabilitation hospitals. Our strong training programs (resident, clinical and postdoctoral fellowships), the research from the Kessler Foundation Research Center, and our annual Board Review Course are important in this achievement.

I have completed a revision of the department history and it will make up the majority of the December Alumni Pulse.

I hope each of you are doing well in your personal and professional lives.

Best regards,



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

✦✦✦✦✦

from the residency director…

Greetings! Hope all of you are well.

My fourth year here as Program Director is drawing to an end (my, how time flies!). I am proud to see another class graduate and go out into the world. Of the ten seniors graduating this June, two will be going into private practice, one will be joining the VA, and the other seven will be doing fellowships (two here at UMDNJ/Kessler). Notable among those doing fellowships is one person doing Pediatric Rehabilitation here at Children's Specialized, which has motivated us to start working on accreditation for that program. We also have two residents who got accepted into Anesthesia-based ACGME accredited Pain Medicine fellowship, which is a first for our residents. And the other graduates once again have accepted some of the most competitive fellowships in the country: interventional pain, spine and sports, and several others. You can see the complete list on the following pages.

The residency and SCI Fellowship had the ACGME RRC Site Visit in May 2009 for renewal of accreditation. We are eagerly awaiting the results, and are hopeful for a five-year accreditation term. In other news, I have decided to change my clinical practice site to the VA, while remaining on faculty at New Jersey Medical School and, of course, continuing as the Residency Program Director. I plan to start at the East Orange VA in September, where I will be joining the faculty on the 13th floor, doing general PM&R. I am really excited about this change, as it will allow me to spend a lot more time every day teaching residents and medical students, while working with a great group of colleagues! In the meantime, I will be taking a long-awaited vacation to Glacier National Park – I plan to bring my bear bells so I can avoid becoming grizzly bear dinner!

Please visit our website at: http://njms.umdnj.edu/departments/physical_medicine___rehabilitation/residency/index.cfm. I would love to have your suggestions for improvements. I remain the webmaster, and am always looking for content, so if you want more information on the website or have ideas for developing the alumni section, please let me know.☺

To those of you in practice, 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!

Best wishes,

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 e-mail or call me with preferred location or job type, and I'll send you the information.***

✦✦✦✦✦

A View from the Coordinator

Greetings PM&R Family & Friends:

I can hardly believe it has been one year that I've been program coordinator and I am as excited now as I was then about my role in our residency program. Dr. DeLisa and Dr. Garstang are excellent leaders and role models and I am tremendously grateful to them for allowing me this opportunity. I absolutely love working with the residents, fellows and the postdocs. There is never a dull moment in residency coordination and the work never ends.☺ Fortified with music CDs and plenty of drink and snacks, my daily 100+ mile travel to and from work is well worth the time often spent sitting in traffic. I've learned the words to almost all the songs, have memorized most signage along the way and have the traffic patterns down to a science. And oh yes ~ I get up extra early each day to work off those daily snacks. *Wuhu!*

Anyway, this year has been great for our department in terms of teamwork. With an even smaller administrative staff than in prior years, I believe we pulled together a successful site visit for both the PM&R and SCI programs in May of this year, which I am hopeful will merit us a five-year accreditation. Also I had the benefit of attending the AAP meeting in Colorado Springs in February and was very impressed to hear in the coordinator's workshops how highly respected our residency program is; and I was commended for being the coordinator in such a distinguished program. I was even asked for my "two cents" worth of feedback in one of the workshops I attended and received positive reaction from the group after sharing some thoughts about leadership responsibility and how it works within the team. However, one of my proudest moments at the conference was listening to our two new awesome chief residents, who as part of a residents' panel, responded to some very tough questions posed by our wonderful coordinators group. I kept thinking (*sometimes out loud*) ~ these are *my* residents; they are from *my* program, and believe me they have had to fill some pretty big shoes following our previous awesome chiefs ~ *Way to go team*!

We bade farewell, at least for now, to one of the best PM&R graduating classes and welcomed a very enthusiastic and talented incoming class. We even have one resident who came to us from the US Army. Our PGY3's, 4's and fellows have gained a special place in my heart over the year and I work tirelessly and some late hours to try to help all of them in any way I can (until when some of them notice the time on the e-mails and send me home for the night ~ thanks you all; I do follow doctor's orders☺). But this is 'par for the course' when time and efficiency are requirements for doing one's best to resolve issues and process paperwork for individuals who depend on you for assistance ~ and I appreciate the opportunity to do just that. We have also matched a great new incoming class for 2010. I look forward to meeting our incoming group again.

So as we embark upon this next year, I wish all of you much success in your careers and I look forward to seeing, hearing or reading about your great achievements in the future. I like to believe that we can lead a horse to water; he can either chose to drink, retreat, or depending upon its' depth keep traveling through the water to the other side. We all have choices and I pray you make the best one for your family, patients and career.

Our program continues to strive for excellence and will remain a true competitor in the world of physical medicine and rehabilitation. ERAS (Electronic Residency Application System) opens on September 1, 2009 and I look forward to receiving some awesome candidates for our Chair and Director to review for the 2011 year. For those of you who are interested ~ apply early. Our deadline ends on November 1st.

God Bless and keep you healthy, wealthy and wise!

Doreen

✦✦✦✦✦

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

Our department has been very active in the medical school over the past year, including teaching within all four years of the NJMS curriculum. In addition teaching

musculoskeletal physical exam skills to first and second year students, and our mandatory clerkship for ~160 senior medical students per year, our department also hosted 96 elective rotations for third and fourth year students.

We were thrilled to see that twelve graduating seniors from NJMS applied for PM&R residencies, and that three of these matched with our own PM&R residency program. Our PM&R student interest club also remains active, with students at various years in medical school indicating that they, too, are considering future careers in PM&R.

✦✦✦✦✦

The following awards were presented in 2009 by the PM&R Department.

Name of Award	Name
PM&R Medical Student Award	*Dana Clark, M.D.*
Resident as Teacher Award	*Jennifer Epperlein, D.O.*
Mitchell Rosenthal, Ph.D., Resident Research Award	*Gina Benaquista, D.O.*
Mitchell Rosenthal, Ph.D., Fellow Research Award	*James F. Sumowski, Ph.D.*
National Teaching Award	*Steven Flanagan, M.D.*
Annual Teacher of the Year Award	*Mylan Lam, M.D.*
Alumni Award	*Gerard Malanga, M.D.*
Mentor Award	*Susan Garstang, M.D.*
James P. McLean Award for Resident Teaching Residents	*Jonathan Kirschner, M.D.*

2009 Board Review Course

This year marked the 21st Annual Physical Medicine & Rehabilitation Review Course. The Course was held from April 23th to May 3rd at The Westminster Hotel in Livingston, New Jersey. We are proud to announce that not only was the course well attended, but our efforts to "go electronic" were successful and well received. This year's course handouts were issued on DVD, with optional printed copies. Most people opted only for the electronic version. We also had images of the slides on the DVD, and educated the course attendants in how to type notes directly onto the PDF image of each slide. Comments on these changes were overall quite positive, and next year we plan to continue this technology.

Dr. Steven Flanagan Receives 2000 NJMS Teacher of the Year Award in PM&R

On June 9th and 10th, 2008, Steven Flanagan, M.D. presented several lectures to our trainees and received our department's Teacher of the Year Award. Dr. Flanagan is Professor and Chairman of the Department of Rehabilitation Medicine, New York University School of Medicine, and the Medical Director of the Rusk Institute of Rehabilitation Medicine, New York University Langone Medical Center. Dr. Flanagan lectured on topics related to Traumatic Brain Injury, including conducting a review of TBI pathophysiology and neuroimaging with the residents, and giving lectures to a large audience during our Annual Research Symposium including "Aging with Traumatic Brain Injury: Changes in Mortality and Long-Term Health Problems" and "TBI: Emerging Prospects for Assessments and Treatments".

Chief Residents Are Selected for 2009-2010

The following residents are congratulated for their selection as chief residents for AY 2009-10. (Note that our chief residents are nominated by vote of both residents and faculty with equal weighting.) The Administrative Chief is responsible for call schedules, vacation schedules, and other administrative issues. The Academic Chief Resident is responsible for the didactic curriculum, including coordination and scheduling of lectures, and administering the quarterly exams.

- **James Wyss, M.D.**, Administrative Chief Resident
- **Brett Gerstman, M.D.**, Academic Chief Resident

AAP Accepts Resident Posters and Abstracts

At the annual meeting of the Association of Academic Physiatrists in Colorado Springs, CO February 2009, 14 posters were accepted from our PM&R residents. Under our school's GME policy, these residents were entitled to receive reimbursement for their airfare, course registration and two nights' accommodation, subject to UMDNJ's usual restrictions on travel reimbursement. The following residents are congratulated for this accomplishment (some residents presented multiple posters).

- Neeti Bathia
- Gina Benaquista
- Margie Donlon
- Jen Epperlein
- Anupama Ganga
- Brett Gerstman
- Lucy Liang
- Stephanie K. Liu
- Amrish Patel
- Lisa Varghese-Kroll
- James Wyss

Resident Awards

At February 2009 AAP meeting, PM&R residents were appointed as follows:

- Dr. Gina Benaquista, Fellow Representative

In addition, we currently have the top Resident positions in both the AAP and the AAPM&R!!

- Brett Gerstman is the President of the AAPM&R Resident Physician Council
- James Wyss is the Chair of the AAP Resident and Fellows Council

We are also well represented on the housestaff union (Committee on Interns and Residents):

- CIR/SEIU Department Representative: Amrish Patel, MD

PM&R Department Welcomes Incoming Residents…

The faculty and trainees welcome the following members of the PM&R residency class of 2012, who entered our program on July 1, 2009.

SuAnn Chen, MD
Med Sch: UMDNJ-New Jersey Medical School, NJ
PGY-1: , St. Barnabas Hospital, NJ

Eduardo Cruz-Colon, MD
Med Sch: Universidad Central Del Caribe, PR
PGY-1: San Juan VA Medical Center, PR

Amanda Farag, MD
Med Sch: UMDNJ-New Jersey Medical School, NJ
PGY-1: Internal Medicine, UMDNJ-New Jersey Medical School, NJ

Debra Ibrahim, DO
Med Sch: New York College of Osteopathic Medicine of New York Institute of Technology, NY
PGY-1: Christ Hospital, UMDNJ-School of Osteopathic Medicine, NY

Monika Krzyzek, DO
Med Sch: Arizona College of Osteopathic Medicine of Midwestern University, AZ
PGY-1: William Beaumont Army Medical Center, TX

Anthony Lee, MD
Med Sch: UMDNJ-New Jersey Medical School, NJ
PGY-1: Morristown Memorial Hospital, NJ

Kirk Lercher, MD
Med Sch: UMDNJ-New Jersey Medical School, NJ
PGY-1: UMDNJ-New Jersey Medical School, NJ

Christine Pfisterer, DO
Med Sch: Lake Erie College of Osteopathic Medicine, PA
PGY-1: Good Samaritan Hospital Medical Center, NY

Christine Roque, DO
Med Sch: UMDNJ-School of Osteopathic Medicine, NJ
PGY-1: Long Beach Medical Center, NY

Mark Sison, MD, PT
Med Sch: University of Santo Tomas Faculty of Medicine & Surgery, the Philippines
PGY-1: St. Joseph Hospital, Chicago, IL

Alon Terry, MD
Med Sch: Joan and Sanford I. Weill Medical College of Cornell University
PGY-1: UPMC Shadyside Hospital, PA

…and Bids Farewell to the Class of 2009!

Graduating Residents

Steve Aydin, DO – *Pain Medicine Fellowship, U. Michigan, MI*
Gina Benaquista, DO – *Spinal Cord Injury Medicine Fellowship, UMDNJ/Kessler, NJ*
Jennifer Epperlein, DO – *Private Practice, NJ*
Maya Evans, MD – *Pediatric Rehabilitation Fellowship, UMDNJ/Children's Specialized Hospital, NJ*
Jonathan Kirschner, MD – *Interventional Spine/Pain Fellowship, York, PA*
Lucy Liang, MD – *Neuromuscular Medicine Fellowship, Harvard/Massachusetts General Hospital, Boston, MA*
Arik Mizrachi, MD – *Pain Medicine Fellowship, U Pittsburgh Medical Center, PA*
Joshua Reimer, MD – *Sports and Spine Fellowship, Napa Valley, CA*
Michael Rhee, MD – *Private Practice, NJ*
Elizabeth Varghese-Kroll, MD *– VAMC, Virginia*

Graduating Clinical Fellows

Omar Gomez-Medina, MD (TBI) – VA San Juan, PR
Jessica Bloomgarden, MD (SCI) – Academic SCI position, Mount Sinai Department of PM&R, NY
Priti Vohra, DO (MSK/Pain) – pending
Stacey Franz, DO, PT (MSK/Pain) – pending

PM&R Department Welcomes Incoming Clinical Fellows

Maya Evans, MD – Pediatric Rehabilitation
Residency: UMDNJ-New Jersey Medical School, NJ

Gina Benaquista, DO – Spinal Cord Injury Medicine
Residency: UMDNJ-New Jersey Medical School, NJ

Joseph Mejia, DO – **MSK/Pain/Spine**
Residency: New York Univ/Rusk Inst of Rehab, NY

Residents' Publications

Varghese-Kroll, E, Elovic EP. Contralateral Weakness and Fatigue After High-Dose Botulinum Toxin Injection for Managementof Poststroke Spasticity. Am J Phys Med Rehabil, 2009; 88:495-499.

Kirschner J, Foye P, Cole J. Piriformis Syndrome, Diagnosis and Treatment. *Muscle & Nerve* 2009; 1-9.

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, Mahajan K, Lipa B, Saporito L, Goncalves M, Komaroff E. Lung Insuffulation Capacity in Neuromuscular Disease. *Am J Phys Med Rehabil* 2008;87:720-725.

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

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.

Reimer J, Altschuler EL. Unilateral Predominant Toe Walking Gait in a Patient with Ankylosing Spondylitis-Visual Vignette. *Am J Phys Med Rehabil.* 2008; 87(1):84.

Liang CW, Armento MJ. Symptomatic Spinal Intradural Arachnoid Cyst and Tarlov Cyst in a 12-yr-Old Male: Case Report and Literature Review. *Am J Phys Med Rehabil*, 2008 Mar; 87(3):S43-44.

FACULTY & ALUMNI NEWS

Congratulations to **Juan Carlos Arango, Ph.D.**, (Class of ’06) for his outstanding contributions to the science of rehabilitation psychology. Dr. Arango is the recipient of the 2009 Emerging Professional Award presented by the American Psychological Association Division 45, Society for the Psychological Study of Ethic Minority Issues.

D**r. Arango** is also the recipient of 2009 Mitch Rosenthal Division 22 Early Career Award, presented by the APA Division 22, Rehabilitation Psychology. This award is presented to the individual that the committee judges as having made the most significant contributions to the science of rehabilitation psychology during the first ten years since earning their doctoral degree.

Nancy Chiaravalloti, Ph.D. (Class of ‘01/current faculty) is the recipient of an Early Career Award from the American Psychological Association for 2009, Division 40, Clinical Neuropsychology.

We congratulate **Brian Greenwald, M.D.** (Class of ’99/ former faculty) on receiving the 2009 Mount Sinai Medical Center Physician of the Year Award in late June. Dr. Greenwald shares that this is an honor given to one physician each year at the medical center by the nursing staff.

Congratulations to **Kelly Scollon-Grieve, M.D.** (Class of 2011) and her husband on the birth of their first child, *Brady Thomas Grieve*. Little Brady was born on July 6, 2009. He weighed 9 lbs., 3 oz. and was 22 inches long.

Faculty Appointments

Ariz R. Mehta, M.D. has joined the department as a Clinical Assistant Professor. He did his Internship in Internal Medicine here at UMDNJ as well as his Residency here in PM&R. Dr. Mehta will be working closely with our faculty in teaching our medical students and residents. He is interested in clinical research involving electrodiagnostics and spinal interventions in the comprehensive rehabilitative management of patients with neuromuscular diseases. He is also transitioning his practice to a solo private practice with a focus on general outpatient and interventional physiatry in Jersey City, NJ.

Faculty Awards/Honors

Patrick Foye, M.D., Associate Professor of PM&R at NJMS, has been named to the Master Educator Guild of UMDNJ. The Master Educator Guild recognizes select faculty who "demonstrate exceptional teaching skills, creativity in curriculum design or innovations in the delivery of education... and engender enthusiasm among their students and are regarded by their peers as an excellent educator."

Gerard Malanga, M.D. recently received an award from Baylor College of Medicine/University of Texas Medical School at Houston. This was the Annual William P. Blocker Lectureship award.

Todd Stitik, M.D. has been named to New Jersey Top Docs for 2008-2009.

Faculty Publications

"Best Research Evidence for Physical Medicine and Rehabilitation**."** Eugene Komaroff, PhD**,** Associate Professor of PM&R, UMDNJ-NJMS; Joel A. DeLisa, MD, **MS**, Professor and Chair of PM&R, UMDNJ-NJMS. *J Spinal Cord Med*, Feb 2009;32(1):3-5.

Carlozzi, N. E., & Long, P. J. (2008). CSA, PTSS and gender: Impact of trauma definition and frequency on findings. *Journal of Childhood and Adolescent Trauma, 1*(4), 273-286.

Bauman, W. A., Schwartz, E., Song, I. S. Y., Kirshblum, S., Cirnigliaro, C., Morrison, N., & Spungen, A. (2008). Dual

energy X-ray absorptiometry overestimates bone mineral density of the lumbar spine in persons with spinal cord injury. *Spinal Cord*. On-line pre-printing at: http://www.nature.com/doifinder/10.1038/sc.2008.169.

Marino, R. J., Jones, L., Kirshblum, S., Tal, J., & Dasgupta, A. (2008) Reliability and repeatability of the motor and sensory examination of the International Standards for Neurological classification of spinal cord injury. *J Spinal Cord Inj Med., 31*, 166-170.

Moholkar, N., Gade, V.K., Allen, J., & Edwards, W.T. (2009). Initial electro-mechanical response to rearward perturbation. *Gait Posture* (epub ahead of print).

Chen P., Erdahl, L. and Barrett, A.M. (2009). Monocular Patching May Induce Ipsilateral "Where" Spatial Bias. Neuropsychologia, 47(3), 711-716.

Heckert K, Adler U, Komaroff E & Barrett, AM (2009). Post-acute re-assessment may prevent dysphagia-associated morbidity. Stroke. Published online, February 19, 2009, 10.1161/STROKEAHA.108.533489.

Chiaravalloti, N.D., Balzano, J., Moore, N.B. & DeLuca, J. The open-trial selective reminding test (OT-SRT) as a tool for the assessment of learning and memory. *The Clinical Neuropsychologist,*2009;23(2), 231-254.

Dyson-Hudson, T.A. & Nash, M.S. Guideline-driven assessment of cardiovascular disease and related risks after spinal cord injury. *Top Spinal Cord Rehabilitation*, 2009:14(3), 32-45.

Foye PM. Myotubular Myopathy: Longevity and Orthopaedic Complications. *J of Ped Orthopaedics*, 29(3):315-317, April/May 2009.

Foye PM. Imaging Studies Detecting Retrorectal Tumors. *Turkish J of Gastroenterology*. 20(1):81, Jan 2009.

Genova, H.M., Sumowski, J.F., Chiaravalloti, N., Voelbel, G.T., DeLuca, J. Cognition in multiple sclerosis: a review of neuropsychological and fMRI research. *Frontiers in BioScience*, 2009;14, 1730-44.

Kwarciak, AM, Sisto, SA, Yarossi, M, Price, R, Komaroff, E, Boninger, ML. Redefining the manual wheelchair stroke cycle: the identification and impact of non-porpulsive pushrim contract. *Archives of Physical Medicine and Rehabilitation*, 2009;90(1), 20-26.

Sumowski, J.F., Chiaravalloti, N.D., & DeLuca, J. (2009). Cognitive reserve protects against cognitive dysfunction in multiple sclerosis. Journal of Clinical and Experimental Neropsychology, DOI: 10.1080/13803390902740643

DeLuca, J., Genova, H.M., Capili, E.J., & Wylie, G.R. (2009). Functional neuroimaging of fatigue. *Physical Medicine and Rehabilitation Clinics of North America*, 20, 325-337.

DeLuca, John. (2009). Chronic Fatigue Syndrome and malingering. In Joel E. Morgan & Jerry J. Sweet (eds), *Neuropsychology of Malingering Casebook* (245-253). Great Britain: Psychology Press.

Dubowsky, S.R., Sisto, S.A., & Langrana, N.A. (2009). Comparison of kinematics, kinetics, and EMG throughout wheelchair propulsion in able-bodied and persons with paraplegia: An integrative approach. *J Biomech Eng*, 131(2), 021015.

Wininger, M., Kim, N.H., & Craelius, W. (2009). Spatial resolution of spontaneous accelerations in reaching tasks. J Biomech, 42(1), 29-34.

Flanagan, S.R., Elovic, E.P., and Sandel, M.E. (2009). Managing agitation associated with traumatic brain injury: behavorial versus pharmacologic intervention? *Archives of PM&R*, 1, 76-80.

Goverover Y, Hillary FG, Chiaravalloti N, Arango-Lasprilla JC, DeLuca J. A functional application of the spacing effect to improve learning and memory in persons with multiple sclerosis. J Clin Exper Neurpsych. 2009, 31 (5), 513-522.

Sumowski JF, Chiaravalloti N, Wylie G, DeLuca J. Cognitive reserve moderates the negative effect of brain atrophy on cognitive efficiency in multiple sclerosis. J Intl Neuropsych Soc. 2009, 15, 600-612.

Varghese-Kroll, Elovic EP. Contralateral Weakness and Fatigue after High-dose Botulinum Toxin Injection for Management of Poststroke Spasticity. Am J Phys Med Rehabil 2009;88:495-499.

Wales DJ, McKay H, Altschuler EL. Defect motifs for spherical topologies. Physical Review B 79 (22) (June 1) 2009. (Note while called Physical 'Review' this is a journal for the finest PRIMARY research papers, NOT reviews. Those are published in journal called Reviews of Modern Physics.)

Genova HM, Hillary FC, Wylie G, Rypma B, DeLuca J. Examination of processing speed deficits in multiple sclerosis using functional magnetic resonance imaging. J Int Neuropsych Soc. 2009, 15, 383-393.

Altschuler EL, Kariuki YM, Jobanputra A. Extant blood samples to deduce the strains of the 1890 and possibly earlier pandemic influenzas. Med Hypotheses. 2009 May 23. [Epub ahead of print.]

Kohl AD, Wylie GR, Genova HM, Hillary FG, DeLuca J. The neural correlates of cognitive fatigue in traumatic brain injury using functional MRI. Brain Injury, May 2009; 23(5)420-432.

Foye PM, Patel SL. Paracoccygeal Corkscrew Approach to Ganglion Impar Injections for Tailbone Pain. Pain Practice (the official journal of the World Institute of Pain). 2009 Sept; 9(4):317-321.

Kirschner JS, Foye PM, Cole JL. Piriformis Syndrome, Diagnosis and Treatment. Muscle Nerve. 2009, 40;10-18.

Ramachandran VS, Altschuler EL. The use of visual feedback, in particular mirror 5 visual feedback, in restoring brain function. Brain (In Press, 2009).

Wylie GR, Graber HL, Voelbel GT, Kohl AD, DeLuca J, Pei Y, Xu Y, Barbour RL. Using co-variations in the Hb signal to detect visual activation: A near infrared spectroscopic imaging study. NeuroImage 47 (2009) 473-781.

New Faculty Grants Since Our Last Issue

Elie Elovic, M.D. "Qualitative Study for PRO Development for Post Stroke Limb Spasticity" from Health Research Associates for the period from 9/11/2008 through 11/07/2008 in the amount of $8,225.

Elie Elovic, M.D. "A Multi-Center, Parallel-Group Randomized Double Blind Placebo-Controlled Trial of Amantadine Hydochloride in the Treatment of Chronic TBI Irritability and Aggression, A Replication Study" NIDRR funded subcontract from Carolinas Medical Center for the period from 12/01/2008 through 11/30/2013 in the amount of $450,000.

Nancy Chiaravalloti, PhD. National Institute on Disability and Rehabilitation Research, Department of Education, "Advanced Rehabilitation Research Training (AART) Center on Neurocognitive Rehabilitation. 7/1/09 – 6/30/14. Total Costs $749,057.

"Impact of Cognitive Reserve on Memory Functioning in Multiple Sclerosis." K99-R00 award. Dr. James Sumowski, $497,520 NIH/NINDS funded.

"The First Step to Investigate the Role of the Superior Colliculus in Spatial Neglect: An fMRI Study." Dr. Glenn Wylie, $49,071. Award by The University of Pennsylvania and CENT.

"Advance Brain Imaging in Traumatic Brain Injury." Dr. Glenn Wylie, $469,453. Awarded by The New Jersey Commission on Brain Injury Research.

"Health-Related Quality of Life in Huntington's Disease Research and Practice: Development of the HD-HROOL." Dr. Noelle Carlozzi, $155,000. NIH/NINDS funded.

Spinal Cord Injury Research and Outcomes and Assessment Research, a pilot study. Dr. Noelle Carlozzi, $8,780. Awarded by UMDNJ.

"Predicting Fall Risk in Acute Rehabilitation and Long-Term Care via Innovative Targeted Cognitive Assessment." Dr. Cristin McKenna, $120,744. Awarded by Select Medical.

✦✦✦✦✦

Obama's Silver Bullet
John Bach, M.D.

On February 20th, President Obama said that there is "no silver bullet" to fix the economy or our environmental problems. Perhaps the President would not recognize a "silver bullet" if he shot himself in the foot with one! Why is it so difficult "to see" a silver bullet?

Just as my neuromuscular patients weaken and are not sustainable unless given respiratory muscle aids, their "silver bullet," one day, our national debt, which is increasing by 2 trillion dollars per year, can also result in our collapse. Is this sustainable? Of course not. Do politicians who are in office for only a few years and want votes from powerful unions and other large constituencies face or try to solve the problem? Not at all.

The human population has been doubling every 37 to 42 years. From 1900 to 2007 the population increased from about 1 billion to 6.5 billion with the average person using 4 times the energy of people in 1900. To use agricultural products as a replacement energy source would require planting ½ the earth to do so but the earth is already being made to sustain a population 3 times the size that is sustainable without the fertilizer and pesticides produced from natural gas and petroleum. With over 3 or 4 billion people on the planet the plundering of the earth takes the form of destroying forests, overexploiting soils, and overgrazing to desertification. By 2050 with an expected population of 9 billion we will be using the resources of more than 2 planets. If we do not quickly find a peaceful means to control population it will certainly be done by war, by starvation due to the falling off agricultural production in an increasingly hot world with less arable land, by pestilence, or by apocalyptic catastrophe, asteroid or volcano. Obviously, the population cannot keep doubling. Do any politicians or "religious leaders" speak about these obvious facts?

As an adolescent, I could not imagine the Orwellian year 1984. The advent of the year 2000 was even more

inconceivable! Well, both are now long past. Indeed, the future is always quickly upon us and what is not sustainable cannot be sustained. How do physicians, considered among the intellectual elite of our society, respond to the unsustainable nature of progressive muscle weakness and ventilatory failure. They ignore it, of course, and let their patients go into acute respiratory failure. Considering that physicians are uninterested in learning how to save the lives of their patients after 30 years of my publications about how to do so, should we expect from our politicians and the public in general to stave off approaching catastrophe? The Chinese fortune cookie that I opened last month, put it nicely, "If you keep heading in the direction that you are headed, you will end up there."

There have been 5 major extinction periods: the Ordovician, Devonian, Permian, Triassic, and Cretaceous, and many smaller ones. The first two wiped out 85% of species. The Triassic (210 million) and Cretaceous (65 million years ago) wiped out 70 to 75% of species. The Permian extinction 245 million years years ago wiped out 95% of species and opened the way to mammals but eliminating the dinosaurs. Even ocean species were devastated. It took 80 million years for life to recover. Smaller extinctions like the Frasnian wiped out certain species. The big and little extinctions have been caused by global warming and cooling, changing sea levels, ocean anoxia, epidemics, methane leaks from the sea floor, meteor and comet impacts, super volcanos, catastrophic solar flares, and severe hurricanes known as hypercanes. A solar flare can release the energy of a billion hydrogen bombs and high energy particles. Such a flare would kill most life on Earth without leaving a historical trace. Cooling seems to have caused the Ordovician, Devonian, and Permian extinctions. The Manson meteor impact that wiped out the dinosaurs was the equivalent of 100 million megatons or one Hiroshima-sized bomb for everyone on the Earth with a billion bombs left over. The meteor landed in a shallow sea when oxygen levels were 10% higher than today, and the world very combustible. Aerosols of sulfuric acid with sulfur from sea rock rained on the Earth burning skin and lungs. Small burrowing mammals were relatively protected. For 4 billion years the ancestors of all life extant today escaped the billions of potential fracture points in their evolution. While the previous mass extinctions are "inconvenient" to say the least, the current rate of species extinctions is greater than during any of the previous mass extinctions and is entirely to human activities.

Every 1 billion years the sun's intensity increases by almost 10%. In several billion years the sun will become a red giant and enlarge to the degree that it will encompass Mercury, Venus, and eventually the Earth itself. As the sun's intensity increased in the past, life developed and expanded over the face of the Earth. An effect of life was to take carbon from the atmosphere and to bury it in the form of coal, petroleum, natural gas (largely clathrates in the north Atlantic), into the soils and forests, and to dissolve it in the oceans. Largely over the last 100 years our species has reversed this process, returning the buried carbon to a thin atmospheric shell around the Earth into which we and all other species of plants and animals have no alternative but to live. Now the oceans, which contain 50 times more CO2 than the atmosphere, are almost saturated with carbon dioxide and our future production will more completely enter the atmosphere unbuffered, causing atmospheric levels to increase much more rapidly. Al Gore presented to the world a graph that showed that over the last 600,000 years global temperatures precisely paralleled atmospheric CO2 levels. As CO2 levels exceed 2000 ppm the seas will boil and the Earth transform into Venus with temperatures of 800^{o} and an atmosphere sufficiently heavy to crush steel. We are rapidly approaching 350 ppm on a planet for which levels should not exceed 240 ppm. Even if no more CO2 or other greenhouse gases are produced, it should take about 50 years for planetary temperatures to equilibrate to the current atmospheric CO2 levels. The doubling of atmospheric CO_2 that will occur in this century will result in at least a 5 to 10^{o} increase in the Earth's temperature. Unfortunately, CO2 production has not stopped but is accelerating, global temperatures increasing, and species continue to disappear at unprecedented rates.

Even worse, positive feedback loops are "kicking in". Little did anyone know when Jebb got his brother the Florida Electoral College votes to make him president, that he would fiddle away our money, ignore the environment, and bankrupt America. Flannery's "the Weathermakers" summarized the problem very nicely. Except for life burning and burying the atmospheres' CO2 to lower the Earth's temperature, the increase in solar intensity over the last 4 billion years would have made the Earth uninhabitable. Trillions of tiny marine organisms capture atmospheric CO2 to make their shells and lock the carbon up, keeping it from being re-evaporated. As they die, the carbon is tied up in limestone. Since 1850 man has put 100 billion tons of carbon into the atmosphere, about 7 billion tons per year. Nature adds about 200 billion tons per year by the belchings of volcanoes and plant decay. We, however, have upset the equilibrium. Over the next 1.1 billion years the sun's intensity will increase another 10% and, even without man-made global warming, this will result in the planet reaching 891^{o}. Water vapor retains $2/3^{rd}$ of the heat trapped by all greenhouse gases.

On the other hand, a drop of 0.1% in solar radiation would result in an ice age. The burial of organic matter dropped atmospheric carbon dioxide levels to under 170 ppm (parts per million) and the Earth froze to the equators at 710 and later at 600 million years ago when a mile of ice covered most of North America and Europe. The Earth's climatic stability over the last 8000 years has been due to the actions of humans to slowly increase atmospheric CO2 levels to provide a temperate climate buy heating their homes and food and burning carbon resources. One trillion tons of carbon rest in living organisms. The amount underground is far greater. There is 50 times more carbon in the seas than in the

atmosphere. Since cold seas can hold much more CO2 than warm ones, the release of CO2 by the warming seas is one positive feedback loop of global warming. Presently, there is a balance between carbonate concentration and CO2 absorbed by the water but as the CO2 concentration increases in the seas, the carbonate is being used up and the oceans are becoming increasingly acidic and the water less able to absorb CO2. The same happens when PaCO2 increases in the human body faster than the kidney's capacity to retain bicarbonate and we go into acute respiratory failure. In the 1980s the ocean was taking up 2 gigatons of carbon per year. This is decreasing rapidly. As surface ocean waters heat, these waters remain on the surface and ocean water circulation decreases. Blooms of plankton draw large quantities of carbon into the oceans and sink when circulation is good. Higher surface water temperatures decrease plankton turnover and carbon sinking into ocean depths adding to the positive-feedback loop. Once the Arctic and Greenland ice are gone ocean levels will rise 23'.

Collapse of the Amazon Rain Forests

At normal temperatures soil bacterial decomposition is slow and allows carbon to accumulate. Increasing temperatures accelerates decompensation, causing CO2 to be evaporated into the atmosphere, another positive feedback loop. The plants of the rain forests create their own rain fall by transpiring. As CO2 levels increase in the atmosphere, vegetation keeps its stomata closed for longer periods, decreasing transpiration and rainfall. Decreasing rainfall is also due to a persistent El Niño that develops with global warming. With the reduction in rainfall and an Amazon basin-wide increase in temperature of 10^{o} F the forest will collapse and the heated soils will decompose and release almost 200 gigatons more of CO2. This would increase atmospheric CO2 content to 1000 ppm.

Methane Release from the Sea Floor

Clathrates are methane bubbles in ice. Massive volumes are buried in sea beds, perhaps twice the energy of all other fossil fuels combined. Clathrates form when the ocean bottom temperatures are below 34^{o} F. There are between 13,100 and 55,020 trillion cubic yeads of clathrates by comparison to 482 trillion cubic yards of recoverable natural gas in the world. If the temperature of the ocean floor increases, the clathrates dissolve and the methane is released as happened 55 million years ago. It is also possible that it was the release of clathrates 245 million years ago that caused the biggest extinction of all time known as the Permo-Triassic extinction event. It is thought that volcanic outpouring of greenhouse gases led to an increase in global temperature of 11^{o} F and that released the Clathrates. Atmospheric oxygen also decreased from 21% to 10% as the methane oxidized to water vapor and CO2.

Snow and ice reflect 80 to 90% of the sun's rays into space whereas water reflects 5 to 10%. Without radiation of heat into space, the Earth would heat up to the temperature of the sun.

Methane makes up 1.5 ppm of the atmosphere but its concentration has doubled over the last 200 years and it creates a 60 times greater greenhouse effect than CO2. It will cause about 16% of global warming this century. Nitrous oxide is 270 times more effective as a greenhouse gas than is CO2. It enters the atmosphere from burning fossil fuels and from fertilizers and remains there for 150 years. Chlorofluorohydrocarbons are 10,000 more efficient at capturing heat than CO2 and are strictly man-made.

55 million years ago the Earth heated by 9 to 18^{o} due to a sudden release of methane and 3000 gigatons of carbon into the atmosphere. Oceans acidified as atmospheric CO2 levels rose from 500 to reach 2000 ppm. Methane as fossil fuel buried in sediments at the bottom of the oceans was released into the atmosphere as magma from below heated it. An explosion caused the methane to combine with oxygen to result in gigatons of CO2 being ejected into the atmosphere. It took 20,000 years for the Earth to reabsorb the carbon, most probably by surface water plankton bloom.

Oil is a result of the remains of plankton in deep, oxygen-poor ocean basins and estuaries. Organic phytoplankton sediments are compressed, forced through crevices into porous strata, and cooked at over 200^{o} F for millions of years. Above the strata rock is needed to prevent its escape. Hotter temperatures result in gas. By 1995 consumption averaged 24 billion barrels per year. Jeffrey Dukes of the University of Utah wrote that each gallon of gasoline is the result of 100 tons of ancient plant life.(4223) Over 425 years of ancient fossil sunlight is burned per year.

Besides limited natural resources, greenhouse gas waste products will limit human expansion. For every 18^{o} F increase in air temperature the air holds twice as much water vapor. The warming of the troposphere and increasing humidity in the warmer air is resulting in permanent El Niño activity which can affect 2/3rds of the world with drought, floods, and extreme storm activity including the most devastating hurricane in over 200 years, Mitch, and the first hurricane to strike South America. Twenty-five million acres burned in 1997-8 alone because of the extreme weather. Plankton, upon which most lake life depend, have declined to 30% of levels 25 years ago because greater stratification of water temperatures is decreasing water mixing and nutrients no longer surface and oxygen no longer penetrates deep into the waters. Lakes are warming and dying everywhere.

At the poles, the interface between sea ice and salt water promotes plankton growth which supports the entire food chain. There has been a 20% decrease in sea ice extent since

1950. The plankton are disappearing along with the sea ice and with this, the krill, penguins, albatrosses, seals, and whales. Only nutrient poor jelly-like salps are thriving.

The great Earth system, Gaia, is trapped in a vicious circle of positive feedback. Extra heat, from any source, whether from greenhouse gases, the disappearance of the Arctic ice or the Amazon forest, is amplified, and its effects are more than additive. It is almost as if we had lit a fire to keep warm, and failed to notice, as we piled on the fuel, that the fire was out of control and the furniture had ignited. When that happens, little time is left to put out the fire. Global warming, like a fire, is accelerating and little or no time may be left to prevent the positive feedback loops. If we just go on for another 40 or 50 years faffing around, they'll have no chance at all, it'll be back to the stone age. There'll be people around still. But civilization will go.

James Lovelock, "Nuclear Power is the Only Green Solution"

The rate of increase in global temperature is currently 0.31^{o} F per decade. With increasing population, saturation of the oceans with CO2, and positive feedback loops this rate will certainly increase. At the end of the last ice age when atmospheric CO2 levels rose by 100 ppm the earth's temperature increased by 9^{o} F. Global dimming by human made particulate matter dumped into the atmosphere is dampening this increase.
So, what is the "silver bullet"? Is it an "economic stimulus package" that pours more borrowed money into social programs and entitlements, highways and school construction, medical bureaucracy for more "big brother" computerization of what used to be a humanitarian profession, medicine, none of which with any potential to result in any real profit to pay back the debts? How can money be "invested?"

On January 30th and 31st I was in Reykjavík, Iceland, where 10 white collar criminals made off to the Cayman Islands with $7 billion. Amateurs you say! In the U.S. Madoff made off with $60 billion alone. Well, multiplying by a factor of 1000, Iceland's population becomes 300,000,000 and its debt, $7 trillion or one-half the per capita debt of Americans but you don't see us complaining in the streets! Despite Iceland's embarrassing (and our soon to be bankrupt) position, their gasoline stations pump hydrogen for their buses and other mass transit, their sidewalks are heated by the pipes that deliver hot geyser water to heat and supply electricity for all their homes. If there were a planetary grid, the people of Iceland could export energy without needing nuclear, solar, or wind sources.

Australia is the only country in which per capita energy consumption exceeds that of Americans. However, because of 500^{o} C horizontal rock formations 2 ½ miles below the surface, within 30 years geothermal energy has the potential to provide all of the electrical power for the country. Water will be pumped down into the formation and return as steam to supply all of Australia's electricity needs.

What about the United States? We have potential sources of energy that make all others pale by comparison. Indeed, every 600,000 years the pressures build and the untapped energy erupts to threaten the existence of every species on the globe. The source is called "Yellowstone National Park." The 40 mile perimeter park is actually the mouth of a volcano that must inevitably blow and with the energy up to 2500 times that of the Mount St. Helen's eruption to create a volcanic winter that can wipe out most of the species on earth and cover large parts of the United States with 100 feet of ash. Might a few drops of this energy be siphoned off to provide the energy for the entire country? or rather, the entire continents of North and South America? Less than 5 miles below the surface the lava of the "park" is $15{,}000^{o}$. It should not be difficult to make steam at that temperature. With the technology of horizontal drilling (what the Kuwaitis were accused of to incite Sadam's invasion) it should be possible to build power plants miles from the park itself. What is Obama waiting for? Does the volcano need to shower us all with "silver bullets" before we wake up (or are put to sleep permanently by another eruption)? Geothermal energy is totally free of "greenhouse gases" and with the global petroleum production peak rapidly approaching and when demand soars again once Indian and Chinese economies rebound a bit, without Yellowstone neither we, nor the rest of the world, has any chance at all. Are any other "silver bullets" lying around? Maybe atomic fusion? Maybe solar power its technology improves a great deal to make it far more efficient than it already is. There is evidence that wind power might also work. Certainly, pouring money into Iraq, into the World Bank, and into the current stimulus package is not going to help us manufacture any "silver bullets."

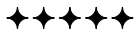
As Ayn Rand warned in the 1940s, "our once effective capitalist society has become a welfare state on the verge of bankruptcy with the communist government of China holding our economic strings. This can only lead to financial catastrophe for the U.S." How little did she really know! The exponential rate of world population increase and the "paradigm paralysis" of the American people whose former manufacturing and economic success resulted in a narcissism of assumed but unsustainable entitlements, leaves little cause for optimism. Einstein said, "Only two things are infinite, the Universe and human stupidity, and I'm not sure about the former." Well, although already infinite, the latter is increasing exponentially.

Carl Sagen said, "There are countless trillions of worlds in our universe, most certainly with intelligent life much advanced from our world. The events of these next few centuries are a critical turning point that will have a profound influence on the future for our descendants, our species, and our entire planet. If we continue to fall prey to the superstitions of pagan religions (western religions and other),

to greed, and to stupidity, there will be no future that anyone would desire to see. With a burgeoning population and dissipation and waste of natural resources it is unlikely that we will have the opportunity to survive long enough to replenish the resources that we need, from any other world. Even now we could propel a spaceship to other planets and nearby stars using nuclear fission but the lack of trust in international politics led to a treaty banning the placement of nuclear material into outer space. If humans do not learn how to work together for common goals, we are not likely to survive."

"Denial ain't just a river in Egypt." --- Mark Twain

It is time for a "Silver Bullet!" Let's put some of the "stimulus package" into real resources of greenhouse gas-free energy and pay back some of the debt rather than continue to export jobs to Saudi Arabia by buying their oil.



The New Improved Lemony Fresh VA

Gautam Malhotra, M.D.

Since graduating from residency in 2005, I have been truly blessed to be a full-time attending physician in the VA New Jersey health care system (VANJHCS). My fellow alumni usually have interesting stories to share with me when we talk about their time in the VA system. Sometimes you recall the stunning pathology displayed with nearly every case. Other times you remind me of the colorful characteristics of some of our more spirited patients. Though almost always, there is also a sense of nostalgia and appreciation for the time spent caring for and learning from the veteran population.

Under the progressive direction of Dr. Chae Im, the physical medicine and rehabilitation service (PMRS) at VANJHCS has undergone significant changes. Dr. Delisa thought it might be interesting for me to update you on what our current PMR residents' experience is like in the VA system today.

Inpatient

PMRS at VANJHCS maintains four inpatient rehabilitation beds at the Lyons campus. The geriatric extended care service (comprised of internists, geriatricians, & palliative care specialists) serves as primary caregiver for these patients while PMRS acts as a consulting service. Residents rotating at Lyons are often surprised at how different the role of a consulting physiatrist can be when comparing to the intense primary role they serve at Kessler. Functional considerations then become the primary emphasis as medical perturbations are seamlessly managed by the internists. During the recent CARF evaluation, VANJHCS was again commended for appropriately utilizing this paradigm and scoring in the top 10%. Our residents were also involved at the time of their visit, allowing for exposure to details of the accreditation process.

On the other hand, by implementing a system for direct requests to therapy, Dr. Im has significantly dropped the number of inpatient consultations at the East Orange campus. Lyons nursing home patients requiring maintenance therapy also no longer require documentation by physiatric services. This has led to an enormous capacity for outpatient management and consequently associated opportunities for meaningful learning experiences

Injections

PMRS at the Lyons campus now has its own dedicated outpatient clinic area. Residents participate in a Wednesday afternoon dedicated entirely to injection clinic. Here they routinely perform most blind peripheral joint and soft tissue injections. Botulinum toxin injections are performed using a combination of motor point and EMG guidance at the East Orange campus. Nearly all faculty are routinely performing ultrasound guided injections of joints including glenohumeral, acromioclavicular, hip, carpo- metacarpal, and ankle. Dr. Rex Ma initiated, and continues to lead the way, for residents to learn ultrasound associated injection techniques, appreciation of anatomy, and even some diagnosis!

Wheelchairs, Prosthetics, and Orthotics

PMRS and prosthetics staffs have endeavored to work very closely over the past three years. The assessment and provision of powered mobility devices has been streamlined significantly. Residents appreciate the pragmatic and focused nature of these evaluations for eventual implementation into their private practices. Both campuses have dedicated liaisons who also serve as a resource for residents.

The recent hiring of certified prosthetist/orthotist Brian Bedotto has afforded VANJHCS the ability to now offer veterans comprehensive interdisciplinary care with open access on a daily basis. Old and new amputees are provided quality componentry including energy storing and/or microprocessor technology. Brian routinely comes upstairs for informal lunchtime question-and-answer didactic sessions.

Electrodiagnosis

VANJHCS continues to provide consistent exposure to electrodiagnostic caseload and neuromuscular pathology for the residency program. Nearly all of the attending physicians participate in electrodiagnostic encounters in order to offer diversity of techniques and analysis. A newer model CADWELL machine was recently purchased a allowing for direct upload of data and waveforms (yup... no more typing in numbers!). Electrodiagnostic clinic is anticipated to also be made available at the Lyons campus sometime in the future.

Mild Traumatic Brain Injury

Residents rotating through VANJHCS are exposed to the

complexities of treating mild traumatic brain injury (mTBI), the signature injury of Operation Enduring Freedom and Operation Iraqi Freedom. Under the direction of Drs. Im and Shenoy, VANJHCS has developed a multidisciplinary team to address various components of an mTBI including vestibular rehab, neuropsychology, community reintegration, psychopharmacology, and close continuous follow-up by case managers. While it is unfortunate that there is scant literature to guide clinicians at this time, residents in training are appreciating the excitement of contributing to a nascent field.

Didactics

VA faculty continues to lecture on various topics throughout the year as well as at the review course. A formal system for lunchtime didactic sessions has been introduced at East Orange. Future sessions hope to incorporate speakers from hand surgery, vascular surgery, orthopedic surgery, radiology, neurology, pathology and prosthetics. The VA rotations continue to be strong sources of hands-on and bedside teaching.

The People

It is abundantly clear to the current residents that camaraderie is a fundamental requirement for the people working at VANJHCS despite a number of changes in staffing over the past four years. Dr. Patricia Young left VANJHCS for Virginia where she initially started a private practice. Today she is a full-time physician for the Department of Defense. Around the time of Dr. Young's departure, Dr. Wen Kang Feng also passed away. Both physicians were soon replaced by Dr. Pankaj Patel and Dr. Gautam Malhotra. Dr. Patel was previously a private practicing physiatrist in Connecticut who was voted one of Connecticut's top doctors of 2003. Dr. Malhotra and later Dr. Nigel Shenoy started working for the VANJHCS directly after graduating from the Kessler program in 2005 and 2007 respectively.

Other long-established members of the VA PMRS family recently left for retirement. Donna Tancredi had served our veterans as cardiac rehabilitation tech long enough to have been exposed to every resident (except Denise Campagnolo) that graduated from the program. Jeffrey Coley served as PMRS coordinator and general all-round “go to” guy for many years.

The Future

Our future plans include accommodating another resident, electrodiagnostic encounters at Lyons, additional ultrasound guided procedures, development of cardiac and pulmonary rehab, and continuing to blaze the trail of mTBI treatment. An influx of veterans is anticipated at our doorstep with a brand-new set of problems.

Already our musculoskeletal focus seems to be shifting from general geriatric degenerative care to more subacute problems in a younger weekend-warrior and sports associated population. There have been times when I am treating father and son, 2 veterans on the same visit. So next time you ask, you'll know why the future feels excitingly wide open to me at the VA…

Follow the three R's:

- Respect for self,
- Respect for others, and
- Responsibility for all your actions.

Remember that not getting what you want is sometimes a wonderful stroke of luck.
Learn the rules so you know how to break them properly.
Don't let a little dispute injure a great relationship.
When you realize you've made a mistake, take immediate steps to correct it.
Spend some time alone each day.
Open your arms to change, but don't give up your values.
Remember that silence is sometimes the best answer.
Live a good, honorable life. Then when you get older and think back, you'll be able to enjoy it a second time.
A loving atmosphere in your home is the foundation for your life.
Share your knowledge. It is a way to achieve immortality.
Be gentle with the earth.
Once a year, go some place you've never seen before.
Remember the best relationship is one in which your love for each other exceeds your need for each other.
Judge your success by what you had to give up in order to get it.
When you lose, don't lose the lesson.
Taken into account that great love and great achievement involve great risk.

✦✦✦✦✦

Culinary Corner

For a soothing side dish

Corn and Zucchini Sauté with Basil

Serves 4

Prep time: 15 mins.
Total time: 15 mins.

6 ears corn, husks and silks removed
1 tablespoon olive oil
1 medium zucchini, halved lengthwise and thinly sliced crosswise
1 garlic clove, minced
Coarse salt and ground pepper
1 cup fresh basil leaves, torn
1 teaspoon white-wine vinegar

Per serving: 158 cal; 5.1 g fat (0.7 g sat fat); 5.3 g protein; 28 g carb; 4.6 g fiber

From Everyday Food by Martha Stewart

✦✦✦

For a cool, refreshing ending to your summertime meal.

Lemon Mousse with Fresh Berries

Serves 8

A very pretty, fresh-tasting dessert that can be assembled a day ahead

- 1 cup plus 1 tablespoon sugar
- 3/4 cup fresh lemon juice
- 6 large egg yolks
- 2 large eggs
- 1-1/2 tablespoons grated lemon peel
- 1 12-ounce basket strawberries, hulled, halved (or quartered if large)
- 1 6-ounce basket fresh blueberries
- 1 6-ounce basket fresh raspberries
- 1 6-ounce basket fresh blackberries
- 2 cups chilled whipping cream
- 8 whole strawberries (for garnish)
- Fresh mint sprigs

Combine 1 cup sugar, lemon juice, 6 egg yolks, 2 whole eggs and grated lemon peel in large metal bowl. Set bowl over saucepan of simmering water (do not allow bowl to touch water). Whisk until mixture thickens and thermometer inserted into mixture registers 160°F. Transfer lemon curd to another large bowl. Chill until cool, whisking occasionally.

Toss halved strawberries, blueberries, raspberries, blackberries and remaining 1 tablespoon sugar in another large bowl.

Using an electric mixer, beat 1-1/2 cups cream in medium bowl until medium-firm peaks form. Fold 1/3 of whipped cream into lemon curd to lighten, then fold in remaining whipped cream.

Divide berry mixture among 8 dessert bowls or wineglasses. Spoon lemon mousse over berries. (Can be prepared 1 day ahead. Cover and refrigerate.)

Using electric mixer, beat remaining 1/2 cup cream in medium bowl until stiff peaks form. Spoon whipped cream atop desserts or transfer whipped cream to pastry bag fitted with large star tip and pipe atop desserts. Garnish with whole strawberries and mint sprigs.

Compliments of epicurious.com

✦✦✦

For the pooch in your family

Canine Coolers

Keep your best friend cool on hot summer days with a refreshing canine cooler. Serve by the poochie pool or under the shade of your dog's favorite tree. Choose from the suggestions below or make up your own!

Makes 8-10
Prep time: 15 mins.

Paw-ty Punch
3½ fl oz (100 ml) apple juice
3½ fl oz (100 ml) cranberry juice
1 teaspoon pure vanilla extract

Optional: rawhide chew sticks

Mix the punch ingredients together in a jug. Pour the punch into popsicle molds or ice-cube trays. If you want, replace standard lollipop sticks with rawhide chew sticks. Freeze and feed to cool canines on hot summer days.

Taken from PUPSNACKS

2009 Graduation
















Dr. Garstang's Farewell Luncheon



Please Support the
Physical Medicine & Rehabilitation Residency Training Program

❑ **Yes!** I'd like to support the *PM&R Residency Training Program.*
Your gift to this discretionary fund provides support for Residents to attend conferences, present research studies, and other expenses related to their training. Enclosed is my/our donation of:

❑ $500 ❑ $250 ❑ $200 ❑ $100 ❑ $50 ❑ Other _____

Please make your check payable to the PM&R Residency Training Fund and send it with this page.
Your donation is tax deductible to the full extent of the law.

Information filed with the Attorney General concerning this charitable solicitation may be obtained from the Attorney General of the State of New Jersey by calling 973-504-6215.
Registration with the Attorney General does not imply endorsement.

Alumnus Name_____

Address: _____
Street City State ZIP Code

Thank You for Your Contribution

✦✦✦✦✦

ATTENTION ALUMNI!!

PLEASE LET US KNOW WHAT YOU ARE DOING – IF THERE HAVE BEEN ANY RECENT DEVELOPMENTS IN YOUR JOB OR PERSONAL LIFE (MARRIAGE, BIRTH, ACADEMIC APPOINTMENTS, AWARDS, OTHER INFORMATION/NEWS),
WE'D LOVE TO HEAR FROM YOU!

_____

_____

_____

_____

PLEASE SEND TO:

DOREEN MUHAMMAD, RESIDENCY PROGRAM ASSISTANT
UMDNJ-NJMS, DEPT. OF PHYSICAL MEDICINE & REHABILITATION
ADMC, SUITE 101, 30 BERGEN STREET, P.O. Box 1709
NEWARK, NJ 07101-1709
E-mail: muhammde@umdnj.edu
Telephone Number: (973) 972-3606
Fax: (973) 972-5148