

DEPARTMENT OF Rehabilitation Medicine

VOLUME IV, ISSUE 1 SPRING 2011

LETTER FROM THE CHAIRMAN



Greetings UW Rehabilitation Medicine friends and colleagues,

The department is proud to announce the launch of a new clinical program, our *Spinal Cord Injury (SCI) Transitions and Wellness program*, made possible by a grant from the Craig H. Neilsen Foundation and a generous matching gift from Mr. Kevin Salvini, his family and friends.

The *Transitions* program is the result of tremendous effort and careful planning by the members of our SCI subcommittee, a core group of rehabilitation staff from Harborview and UW Medical Center chosen for their expertise in SCI to collaborate across both institutions over the continuum of SCI rehabilitative care. Under the strong leadership of Dr. Maria Reyes, the group recognized the service challenges that the SCI population face as they transition from inpatient rehabilitation into the first two years of community living post-injury. Over a period of 2 years, the group developed the interdisciplinary program, *Transitions*. I would like to thank the SCI subcommittee for remaining committed to expanding and improving the services we provide to our SCI patients. We are pleased to provide you with an overview of the innovative program in this issue of the newsletter.

Thank you for reading. Contact us at rehab@uw.edu with questions or comments.

Peter Esselman, MD
Professor and Chairman

PATIENT CARE: New SCI *Transitions Program* Paves Way to Independence, Quality of Life



Dr. Maria Reyes,
Medical Director,
UW Medicine
SCI Rehabilitation

For someone with a spinal cord injury (SCI), appropriate rehabilitative care is the first step toward maximizing functioning and quality of life. But what happens when a patient leaves the hospital? Navigating a new life after release from rehabilitative care can be a challenge for people with SCI.

“Promoting long-term health in a person with SCI hinges not only on good medical care, but on learning about and adopting healthful habits and

Story continued on page 2

CALENDAR

- **March 27 - April 2, 2011**
PM&R Board Review Course
Hotel Deca
- **April 29-30, 2011**
Stroke Rehabilitation Symposium
Harborview Medical Ctr.
- **May 20, 2011**
Justus F. Lehmann Symposium
Center for Urban Horticulture

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lifestyle choices,” said Maria R. (Rina) Reyes, M.D., UW assistant professor in the Department of Rehabilitation Medicine and medical director of the UW Medicine SCI Rehabilitation Program. “Outside the healthcare setting, a person has the potential to fulfill physical, emotional, social and intellectual needs.”

Now, thanks to generous private support, participants in the new *Transitions Health Maintenance and Wellness Program* have access to services beyond the top-ranked rehabilitative care they receive at UW Medicine —services that aim to help them make the transition to independence.

The newly launched *Transitions* program is made possible by a \$95,000 grant from the Craig H. Neilsen Foundation and a matching gift from Mr. Kenny Salvini, his family and friends. The Neilsen Foundation, which has provided UW Medicine with generous program and research funding in recent years, is dedicated to supporting treatment- and cure-based SCI research as well as innovative programs that improve quality of life for individuals with SCI.

“*Transitions* promotes lifelong wellness, independence and participation by introducing and encouraging healthful practices as individuals with SCI make the shift from acute, inpatient care to community living,” Reyes explained.

A resource for patients during the critical first two years after injury, *Transitions* will directly serve about 100 individuals each year — primarily Washington residents, but also patients from Alaska, Montana and Idaho — and is a resource for our broader SCI population as well.

The individualized program provides opportunities to participate in supervised adapted exercise, join community recreation programs, master adapted driving skills, make use of technology that promotes vocational exploration, and access counseling services. The program components, most of which are not funded by the most common insurers in Washington, include:

Education:

A recurring educational series reviews medical complications, nutrition and weight management, coping and pain-management strategies, and vocational and social resources.

Mobility:

A twice-weekly group exercise class using specialized equipment helps to maximize independence and safety and motivates participants to integrate exercise into daily life.



Adaptive Driving:

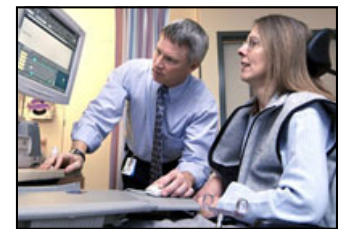
Scholarships offer eligible individuals the opportunity to complete adapted driving evaluation and training, thereby fostering independence.

Community Recreation:

The program supports participation in community-based adapted exercise, yoga and aquatics classes, and in adapted fishing and sailing trips.

Computer Access Program:

A pool of laptop computers for short-term loan will encourage exploration of community resources and assist with prevocational preparation after discharge.



Rehabilitation Psychology:

The program provides eligible individuals with rehabilitation psychology visits to address mood and adjustment, to provide strategies to manage pain and to maintain a healthy lifestyle.

Drawing on the expertise of the UW Medicine SCI Rehabilitation Program, *Transitions* provides a multidimensional and groundbreaking level of post-rehabilitative care in our community that integrates wellness and redefines health promotion after SCI.



To learn more about *Transitions*, including eligibility and referral information, please visit:

<http://sci.washington.edu/transitions>

RESEARCH: Veteran's Affairs Motion Analysis Lab

In our last issue, we featured our Human Motion Analysis Lab (HMAL) at the University of Washington. In this edition, we're pleased to highlight the Veteran's Affairs (VA) Motion Analysis Laboratory (VA MAL). The VA MAL, directed by Michael Hahn, PhD, is one of a number of research laboratories under the umbrella of the VA Rehabilitation Research Center of Excellence in Limb Loss Prevention and Prosthetic Engineering. The Research Center has been funded in part for 10 years with more than \$1 million per year in investigator initiated grants from the Department of Defense (DoD), National Institutes of Health (NIH), and the VA.

The VA MAL's primary research focus has been in the area of prosthetic engineering for the evaluation and development of prosthetic componentry as well as understanding the human adaptations that result from amputation. Incorporated within this general theme has been the evaluation of impact absorbing prosthetic pylons (one of 3 major components in a prosthetic leg), torsional characteristics of prosthetic limbs, energy storage and release characteristics of prosthetic feet, as well as microprocessor controlled prosthetic knees.

The VA MAL has been involved in collaborative development projects with scientists from University of Michigan, Massachusetts Institute of Technology (MIT), and University of Texas (UT) Southwestern, to develop innovative socket designs, prosthetic feet and control systems for powered prosthetic limbs.

The VA MAL has been a focal point for the training and development of future scientists, having supported graduate students in Electrical Engineering, Mechanical Engineering, Bioengineering, Rehabilitation Sciences, as well as resident physicians and research fellows in Rehabilitation Medicine.

A number of newly funded grants will explore the effects of prosthetic foot stiffness and their effect on impact loading of the remaining limb to determine their contributions

to secondary degenerative arthritis, gait characteristics and efficiency of ambulation, as well as, balance and stability.

VA MAL Current Research Projects:

Prosthetic foot stiffness and degenerative arthritis:

David Morgenroth, MD, acting assistant professor, recently received grant funding for a five-year VA Career Development Award.

Dr. Morgenroth's primary project on this grant explores the effects of prosthetic foot stiffness on the loading forces at the knee joint during walking.

The results of this study will help guide clinicians in optimizing prosthetic prescription to reduce knee joint loading and thus help reduce the higher than normal prevalence of knee osteoarthritis in lower extremity amputees.



Flexible Keel Prosthetic foot



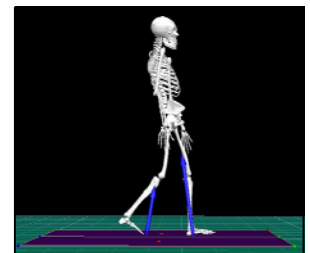
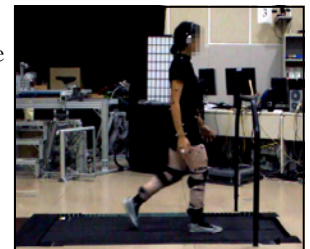
Knee radiograph demonstrating severe medial compartment degenerative joint disease

Gait characteristics and efficiency of ambulation:

Andrew Sawers, MSPO, doctoral student in the Rehabilitation Science program has been involved in two main projects in the VA MAL.

The first project identified the instantaneous center of rotation in a series of prosthetic feet to better understand their contributions to locomotion among lower limb amputees.

Currently Andrew is using a split-belt, instrumented treadmill to investigate motor learning strategies that may make motor re-learning safer and less demanding for a variety of rehabilitation populations.



Instrumented treadmill views

EDUCATION & TRAINING: Master of P&O Program News

The Division of Prosthetics & Orthotics will welcome the inaugural Master of Prosthetics and Orthotics (MPO) student cohort in September 2011.



*Ann Yamane, C.O.,
Division Head,
Prosthetics & Orthotics*

The initial conversations about moving to an MPO program began in 2006 after consensus at the O&P Education Summit and the National Commission on Orthotic and Prosthetic Education ([NCOPE](#)) Strategic Planning Meeting both supported moving primary O&P education to an entry-level master degree. The decision was based largely on the increasing responsibilities of the practitioner, advances in technology and material science, and the need to integrate evidence-based practice into the educational process to form a foundation for effective clinical practice.

The University of Washington started the official transition process in April 2008, and received approval for their new MPO degree from the UW Board of Regents in September 2010. The P&O faculty was fortunate to have Jean Deitz, Ph.D., OTR, professor emerita, as Chair of the MPO Committee. Dr. Deitz skillfully mentored the faculty throughout the two and a half year process.

In preparation for the new curriculum, the P&O faculty examined the level of academic rigor of the core prosthetics and orthotics courses. Existing courses have been revised and new courses related to the provision of evidence-based practice, emerging technologies, and professional practice in P&O have been added.

To learn more about the MPO Program, please visit:

<http://rehab.washington.edu/education/degree/po/>

SPOTLIGHT: Spring Has Sprung in HMC's Rehabilitation Therapy Department Adaptive Gardening Program



Several years ago, a seed was planted in the rehabilitation therapy department and slowly it has been germinating. This past fall, a group of rehabilitation therapists were able to see this seed begin to bloom with the help of a grant from the Funding Allocations Committee and

assistance from both the HMC Carpentry and Grounds departments. This 'seed' has taken shape in the form of an accessible garden out in the View Park area on the West side of the hospital.

The HMC Therapy Garden is for patients who are currently receiving services on inpatient rehabilitation and psychiatry or in the Comprehensive Outpatient Rehabilitation Program.

The garden is designed as another method for patients to reach their therapy goals including: leisure exploration and participation, improving standing tolerance or upper extremity functioning, challenging cognitive skills required

for planning and problem solving when managing a garden, learning how to maneuver a wheelchair out in the community, developing new ways to manage stress and providing opportunities for social connection.

The garden is a safe environment where people of all ages, abilities and backgrounds can come together to see growth in their recovery and in the garden.

We look forward to seeing this program take root this spring and summer. Take a minute to step outside, get some fresh air and find out what's growing in the garden!

FACULTY NEWS, AWARDS & HONORS:

Welcome New Faculty



Molly Cooper, CPO, joins the faculty as a teaching associate in the Division of Prosthetics and Orthotics (P&O). Ms. Cooper's expertise is in lower extremity prosthetics. Her research interests include traumatic brain injury as it relates to prosthetics and documentation procedures in P&O. Ms. Cooper received her BS in Prosthetics and Orthotics from the UW Department of Rehabilitation Medicine. She completed her [NCOPE](#) sanctioned residencies in prosthetics and orthotics at the Center for O&P Care in Louisville, KY.



Ellen McGough, PT, MEd, PhD joins the faculty as an assistant professor in the Division of Physical Therapy (PT). Dr. McGough's clinical interests are in the areas of musculoskeletal, neurological and geriatric physical therapy. Her research is focused on identifying functional markers and neuroimaging markers for cognitive impairment and dementia in older adults. Dr. McGough received her BS in Physical Therapy and Microbiology from the University of Wisconsin, La Crosse. She completed both her MEd and PhD at the University of Washington.

Neurology Section of APTA establishes Lectureship in honor of Dr. Anne Shumway-Cook



The Neurology Section of the American Physical Therapy Association (APTA) recently announced the inauguration of the annual "Anne Shumway-Cook Lecture: Translating Neurorehabilitation Research into Practice." The lecture was established to acknowledge and honor an individual who has made significant contribution to the area of neurologic physical therapy research and practice. The lecture was named in honor of **Anne Shumway-Cook**, PT, PhD, FAPTA, for her pioneering and exceptional contribution to neurorehabilitation research that translates knowledge from science to the practice of physical therapy.

Dr. Westcott McCoy on Editorial Board of *Physical Therapy*



Sarah Westcott McCoy, PhD, associate professor, was named to the editorial board of *Physical Therapy Journal* (PTJ). The PTJ is the journal of the American Physical Therapy Association (APTA) and is the leading international journal for research and physical therapy related fields. The PTJ has a circulation of approximately 77,000.

Faculty Promotion



Effective February 1, **Janna Friedly**, MD, was appointed to assistant professor. Dr. Friedly's primary clinical interest is the rehabilitation of people with amputations.

Dr. Friedly's research interests include health services research, improvement of health care delivery systems to persons with disability, outcomes research and quality improvement.

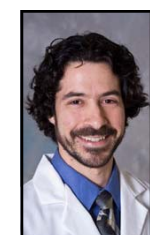
Dr. Jirikowic Elected Chair of American OT Association DDIS



Tracy Jirikowic, PhD, OTR/L, was elected Chair of the American Occupational Therapy Association Developmental Disabilities Special Interest Section (DDIS).

The goal of the DDIS is to focus on how OT assessment and intervention can facilitate the inclusion of individuals with developmental disabilities in home, school, work, and community life.

Dr. Morgenroth: Excellence in Research Writing Award



David Morgenroth, MD, acting assistant professor, was awarded the Ernest W. Johnson/ Association of Academic Physiatrists Excellence in Research Writing Award for a publication in the

American Journal of PM&R. The award is given for the best paper whose first author is in training as a medical student, resident or fellow.



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[HTTP://REHAB.WASHINGTON.EDU](http://rehab.washington.edu)

UW Department of Rehabilitation Medicine Banner Image by: Janet Schukar

ACCOLADES:

3 PM&R Residents Accepted into RMSTP Program



Dr. Mamie Air



Dr. Joe Elias



Dr. Elana Katz

Congratulations to second year Physical Medicine and Rehabilitation (PM&R) residents Mamie Air, MD, Joe Elias, MD, and Elana Katz, MD. Drs. Air, Elias, and Katz have all been accepted into the Association of Academic Physiatrists (AAP) Rehabilitation Medicine Scientist Training Program (RMSTP).

The [RMSTP](#) provides research training, mentorship and career development support for physiatrists committed to developing careers in academic medicine and research.

MARK YOUR CALENDAR:

May 8, 2011: 3rd Annual Traumatic Brain Injury Artist Showcase

The UW Traumatic Brain Injury Model System (UW TBIMS) and the Brain Injury Association of Washington are hosting the 3rd Annual Traumatic Brain Injury Artist Showcase, *Recreating Me: Exploring & Healing through Creative Expression*, beginning May 8 through May 18 at the [Museum of History and Industry](#) in Seattle, Washington.

The TBI art show is a multi-media display of art created by brain injury survivors and includes visual, musical, written and spoken creations.

For more information, please visit the UW TBIMS Website:
<http://depts.washington.edu/uwtbi/Education/artshow.htm>



Looking Out Breathing In by Hilde Pfurtscheller