Greetings friends and colleagues,

In May, Dr. Jefferson Slimp will retire after 30 years on the faculty. In 1983, Dr. Walter Stolov and Dr. Slimp established our intraoperative neuromonitoring program; Dr. Slimp has been the director since day one. In honor of his notable career, we have featured the internationally recognized program that he has developed and fostered for the past three decades.

On the research front, I am pleased to report that a Chicago area foundation has made a very generous donation in support of Dr. Casey Childer’s work on X-Linked Myotubular Myopathy. And in December, the *New England Journal of Medicine* published an article co-authored by Dr. Sureyya Dikmen and Joan Machamer (Dr. Randall Chesnut of Neurosurgery is the PI) that is expected to have global impact on traumatic brain injury care. To learn more about this study, please turn to page 4.

Finally, we are introducing a new section in our newsletter—the alumni corner, where we will feature updates from our former residents, fellows and students. Our first installment comes from Leighton Chan, MD, PhD, who completed his PMR Residency at the UW in 1994 and then stayed on as faculty until 2007 before taking a job as chief of Rehabilitation Medicine at the NIH.

Thank you for your continued interest and support of the department. Contact us at rehab@uw.edu with questions or comments.

Peter Esselman, MD, MPT  
Professor and Chairman

**Spotlight: Neuromonitoring Program**

When someone has surgery on the brain, spinal cord or spine or peripheral nerves, surgeons often request neuromonitoring to help them protect the nervous system from injury that could occur during surgery. Neuromonitoring utilizes electrical tests of the nervous system that monitor the function of the brain or spinal cord.

Our neuromonitoring program was developed in 1983 by Drs. Walter Stolov and Jefferson Slimp. Dr. Slimp has been the program director since the beginning, and after an impressive 30-year career, he is officially retiring in May. Dr. Gregory Kinney will assume the role of director.

*Spotlight continued on page 2*
cal recordings with microelectrodes to help identify the best location for specific interventions to treat brain disorders or the placement of deep brain stimulating electrodes in parts of the brain that control movement for the treatment of Parkinson’s disease, essential tremor, and dystonia. Since 1996, Dr. Slimp has been part of the movement disorder clinic and has performed the programming of deep brain stimulators.

Our Team
Our program utilizes a staff of three neurophysiologists, one physician and 11 electrodiagnostic technologists. The technologists apply the electrodes to the patients and use computerized equipment to collect the electrophysiological data in the operating room. They are directly supervised on a continuous basis by PhD neurophysiologists – Drs. Jefferson Slimp, Gregory Kinney, Robert Holdefer - who analyze and interpret the data either in the operating room or through special internet connections between their office locations and the operating room equipment.

Efficacy
Some of the most compelling studies supporting the diagnostic effectiveness of neuromonitoring are from surveys of the scoliosis research society on the incidence of complications following surgical repair of scoliosis. These studies show a decrease of approximately 50% in the occurrence of paralysis over the years that neuromonitoring has been in practice. While it is accepted that rigorous scientific study using randomized controlled trials is not ethical at this time, our team under the direction of Dr. Holdefer, is involved in applying other equivalent scientific methods to demonstrate the diagnostic efficacy of neuromonitoring.

Acknowledgments
“I still recall that day when Dr. Stolov asked me to join him and Dr. Kraft in his office to see if I would help him in developing an evoked potential monitoring program for UWMC,” remembers Dr. Slimp. “I still don’t know why I answered so quickly that I would. Perhaps I was momentarily clairvoyant that it would become a major part of my career but in reality I thought it would be a short-term contract. However, thirty years later a career has been made. I would be remiss if I did not acknowledge those stellar individuals that provided me with the mentoring that I surely needed: Drs. Walter Stolov, Marjorie Anderson, George Kraft, and Arnold Towe. I owe my professional life to their tutelage and inspiration.”

“The work with Dr. Slimp over the last 12 years has been a great experience,” says Dr. Kinney. “Under his guidance and leadership, our neuromonitoring program has become one of the finest in the country, with a highly qualified team of neurophysiologists and technologists providing a high level of care for a wide array of surgical procedures. I look forward to taking over as director and holding the program to the high standards set by Drs. Slimp and Stolov.”

In Dr. Slimp’s tenure as director, the program has responded to changing demands, resulting in a several fold increase in the cases monitored from about 40 cases per year in 1983 to the current level of over 2,000 cases per year. The team has been involved in the development and application of the latest technological changes in neuromonitoring and is internationally recognized and well-published monitoring program.

Currently, the neuromonitoring program provides 24/7 monitoring for approximately 20 different orthopedic, neurological and pediatric plastic surgeons at three hospitals: UW Medical Center, Harborview Medical Center and Seattle Children’s. The majority of our monitoring is done for the following cases:

- spine operations that put the spinal cord at risk
- surgeries on the long bones of the arms or legs that put peripheral nerves at risk
- tumor removals, aneurysm treatments, arteriovenous malformation resection, and nerve repairs that put the brain, spinal cord, or peripheral nerves at risk
- pediatric plastic surgery procedures that involve the resection of facial tumors and tumors of the shoulder that put the facial nerve or the brachial plexus at risk
- tumor removals, aneurysm treatments, arteriovenous malformation resection, and nerve repairs that put the brain, spinal cord, or peripheral nerves at risk
- pediatric plastic surgery procedures that involve the resection of facial tumors and tumors of the shoulder that put the facial nerve or the brachial plexus at risk

In order to perform a complete evaluation of a patient’s brain and/or spinal cord function, electrodes are placed on various locations on the patient’s arms, legs and head. The electrodes allow the team to test different parts of the nervous system including: sensory information that goes to the brain from the skin, ears, or the eyes (touch, hearing and vision); motor information that comes from the brain to the muscles (ability to move); and spinal cord reflex activity.

Another specialized aspect of neuromonitoring that Dr. Slimp, together with Dr. Marjorie Anderson, became involved with in the 1990’s is the use of electrical recordings with microelectrodes to help identify the best location for specific interventions to treat brain disorders or the placement of deep brain stimulating electrodes in parts of the brain that control movement for the treatment of Parkinson’s disease, essential tremor, and dystonia. Since 1996, Dr. Slimp has been part of the movement disorder clinic and has performed the programming of deep brain stimulators.
Departmental grant proposals on the rise

UW Rehabilitation Medicine has a deep commitment to advancing the field of rehabilitation medicine through research. In 2012, the department had growth in the number of submitted grant proposals. The figures below are derived from the department’s new grants database which tracks proposals, funding sources, incoming awards, and more.

<table>
<thead>
<tr>
<th>PROPOSALS SUBMITTED BY CALENDAR YEAR</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>All proposals submitted</td>
<td>43</td>
<td>44</td>
<td>71</td>
</tr>
<tr>
<td>Awarded (of the above proposals)</td>
<td>15</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Award success rate</td>
<td>35%</td>
<td>23%</td>
<td>28%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AWARDS RECEIVED BY CALENDAR YEAR</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>All incoming awards for calendar year</td>
<td>42</td>
<td>49</td>
<td>46</td>
</tr>
</tbody>
</table>

Meet the Grants Team

Our successful research funding year after year is due in large part to our dedicated and hard-working grants staff. The team utilizes a cradle-to-grave service model, where each grants specialist works with a specific group of Principal Investigators (PI’s) and handles all of their pre- and post-award grant needs.

**Elin Martin**, grants manager, works closely with our early-career/new investigators. Elin’s role (beyond the proposals and post award activity) involves team management and problem solving. She’s also working on process improvement and documentation regarding grants and approval processes, as well as metrics regarding grants activity/funding (see above). She has been with the department for 5 years, though she has been with the UW for the past 12 years.

**Christine Krauss**, grants analyst, assists with grant proposal preparation and submission for faculty with training grants. She also manages fiscal and regulatory monitoring of research grants from award through close-out. Christine has been with the department since December 2008, but happens to have a long history with the UW starting her employment as a student hourly worker in 1992.

**Thao Chau**, grants analyst, joined the department in October 2012, but has worked for the UW a total of 6 years. Like Christine, her role includes overseeing pre- and post-award activities for faculty with clinical trials and animal studies.

**Alexis Tristan**, fiscal specialist, has been with the department since May 2007. Alexis works with all grant award finances, including monthly budget reconciliations, bank deposits, processing quarterly reports, setting up new budgets, annual audits and database entry.
The Where There’s a Will There’s a Cure Foundation recently made its first ever donation to support the work being done by Dr. Martin “Casey” Childers, professor, in the Department of Rehabilitation Medicine. Daniel and Melanie Whiston of Geneva, IL formed the foundation in 2012 to fund research for treatments of Myotubular Myopathy. Daniel Whiston and his father, Brian Whiston, presented the $50,000 donation prior to a lecture given by Dr. Childers at the Institute for Stem Cell and Regenerative Medicine on April 2nd.

Thank you Daniel and Melanie, and to their family and friends!

**Chicago Area Foundation Funds X-Linked Myotubular Myopathy Research**

Dr. Sureyya Dikmen, professor and Joanie Machamer, research scientist, were co-authors on the paper, “A trial of intracranial pressure monitoring in traumatic brain injury” funded by NIH and published in the prestigious *New England Journal of Medicine* (NEJM). Dr. Randall Chesnut, professor of Neurological Surgery, is the Principal Investigator. The results of this paper are expected to have dramatic global impact on traumatic brain injury care.

Intracranial-pressure (ICP) monitoring is considered the standard of care for severe traumatic brain injury in the developed world, despite the lack of rigorous assessment to support its use due to ethical dilemmas.

Since 2007, the research team that included investigators from the United States and Latin America conducted a randomized clinical trial evaluating the efficacy of ICP monitoring in the management of severe TBI in the ICU at 6 sites in Bolivia and Ecuador. The study centers in these two particular South American countries were chosen because they did not use ICP monitors but routinely treated ICP based on clinical examination and CT imaging.

The study compared two different treatment protocols on outcomes. One protocol required care to be directed in response to monitored ICP values. In the other protocol, treatment was guided by the results of serial CT imaging, and clinical examinations. Patients were randomly assigned to one of these two groups and examined over 6 months.

The most important results of this study were that there were no differences between the two groups on a composite outcome based on mortality, functional status and neuropsychological abilities over 6 months post-injury. However, the group that received care in response to monitored ICP was associated with fewer treatments and a shorter ICU stay.

This study is important because it shows that although ICP monitored treatment of those with severe TBI is considered standard of care in high income countries, this study does not show its superiority over management guided by neurological examination and serial CT imaging.

Staff News

Kathleen Pinney celebrates 25 years of service at the UW

Kathleen Pinney, assistant to the chair, celebrated 25 years of service at the UW this March. She is a dedicated, hardworking and thoughtful employee—a true asset to the department. Kathleen was only supposed to fill in for 6 weeks, but then chairman, Dr. Stolov, asked her to stay and we are so grateful she accepted. She has an impeccable memory and is extremely organized. We are incredibly fortunate to have her on our team. Congratulations, Kathleen!

Pamela Graber receives UW School of Medicine Service Excellence Award

Pamela Graber, administrator, is the recipient of a Winter 2013 UW School of Medicine Service Excellence Award. The Dean’s office recognizes people who represent the values of excellent service and commitment to the School of Medicine’s mission. As a recipient of the award, Pamela has demonstrated her dedication to the mission through effective mentoring, inspiring leadership and exemplary service to others. Congratulations, Pamela!

2013 PM&R Review Course a Success

The University of Washington’s annual Physical Medicine & Rehabilitation Medicine Review Course celebrated its 30th year in March. Course co-chairs Karen Barr, MD and Jennifer Zumsteg, MD implemented several new lectures to expand review topic coverage and worked to optimize the use of technology during the week-long course, including online question blocks for attendees. The course continues to be popular and registration was up by an impressive 18% from last year. Drs. Barr and Zumsteg would like to extend their sincere gratitude to the department and GME staff, guest faculty and 45 University of Washington faculty members who all contributed to the success of the course. We look forward to another successful review course in 2014; look for details on the department’s website coming soon.

Upcoming Events:

REMEMBER!
DEPARTMENT OF REHABILITATION MEDICINE
UNIVERSITY OF WASHINGTON

28th Annual
Justus F. Lehmann Symposium
May 23, 2013
7:30 am to 4:00 pm, Center for Urban Horticulture

“The Role of Outcome Measurement in Rehabilitation Research and Practice: What We Measure and How”

with Carolyn Baum, PhD, OTR/L, FAOTA, Elias Michael Director of the Program in Occupational Therapy at Washington University

For more information, please visit: rehab.washington.edu/education/conteduc.asp

SAVE THE DATE!
DEPARTMENT OF REHABILITATION MEDICINE
UNIVERSITY OF WASHINGTON

3rd Annual
Wilbert E. Fordyce Lecture
October 15, 2013
Location TBA

with special guest John D. Loser, MD
UW Professor of Neurological Surgery and Anesthesiology

For more information, contact Alice Kim at evonisej@uw.edu
Alumni Corner

The following is an update from Leighton Chan, MD, MPH. Dr. Chan was a PM&R resident at the UW from 1990-94, and on the UW faculty from 1995-2007.

“I left Seattle and took a great job as the Chief of the Rehabilitation Medicine Department at the NIH Clinical Center, a 280 bed research hospital. I run a clinical department that helps support the clinical research performed by about 300 NIH intramural investigators. In addition, I get to do my own research. We have a pretty robust rehab research program, supporting everything from biomechanics and robotics, to epidemiology and instrument development.

While I still have ongoing Medicare analyses and Pulmonary Rehab trials, our largest collaborations have been with the Social Security Administration (SSA) and the Department of Defense (DoD). Our work with SSA has focused on improving their disability determination process in two ways: 1) identifying individuals who are likely to become disabled or die quickly and 2) developing computer adaptive disability tests that will speed up the determination process. We also have a large collaboration with the DoD in relation to TBI. Our department houses the rehab/phenotyping core for the Center for Neuroscience and Regenerative Medicine, one of the largest TBI research collaborations in the world (funded at over $70 million). Our department supports over 20 clinical trials and our research protocols have enrolled more than 2,000 civilians and soldiers with TBI.

On the home front, my wife Beth (a former physical therapist from Harborview) now practices pediatric PT in Bethesda and our kids (Josh age 10, and Nani, age 8) are growing up fast. Miss you guys!”

-Dr. Leighton Chan

Call for Alumni Updates

We love to hear from our former students, residents and fellows. Let us know what you’ve been up to. Send an email to rehab@uw.edu with “alumni update” in the subject. Photos are optional, but appreciated.

Introducing the 2013-2014 Chief Residents

Congratulations to Mindy Loveless, MD, and Felicia Skelton, MD, for being selected by their co-residents as the 2013-2014 chief residents.

The entire residency program extends their sincere gratitude to current chief residents Matthew Grierson, MD, and Elana Katz, MD, for a terrific year of leadership.
Faculty News, Awards & Honors:

Three Occupational Therapy faculty members honored by AOTA

Three occupational therapy faculty members will receive awards at the American Occupational Therapy Association (AOTA) annual conference April 24-28 in San Diego.

Dr. Janet Powell, associate professor and division head, will receive an American Occupational Therapy Foundation (AOTF) Leadership Service Commendation. The AOTF is a branch of the AOTA organization that supports research efforts. Dr. Powell will be honored for her service as a multi-year member of the AOTF Dissertation Research Grant Review Committee.

Dr. Tracy Jirikowic, assistant professor, was named to the prestigious AOTA Roster of Fellows for her "leadership, scholarship, and education in development disabilities."

Ms. Beth Rollinger, lecturer, will be honored with an AOTA Recognition of Achievement Award for her outstanding work, commitment, and long-standing contributions in the area of fieldwork education and mentorship.

Dr. Kanny receives the WOTA Presidential Commendation Award

Dr. Elizabeth Kanny, associate professor emeritus, and formerly Head, Division of Occupational Therapy, received the Presidential Commendation Award at the Annual Washington Occupational Therapy Conference in October 2012. This award expresses the appreciation of WOTA for extraordinary contributions to the advancement of occupational therapy through legislative involvement, political support, advocacy efforts or leadership in promoting occupational therapy and health care issues.

Dr. Krabak advanced to fellow of the American College of Sports Medicine

Dr. Brian Krabak, clinical associate professor, was recently advanced to Fellow for the American College of Sports Medicine (ACSM). It is a peer review process that requires letters of recommendation from sports medicine experts from around the country and review by the ACSM Credentials Committee. The purpose of the ACSM Fellows is to recognize distinguished professional achievement in research and/or service and to encourage continued service/leadership to the College. Dr. Stanley Herring, clinical professor, is also a fellow.

Dr. McCoy elected to the Catherine Worthingham Fellows of the APTA

Dr. Sally Westcott McCoy, professor, has been elected to the Catherine Worthingham Fellows of the American Physical Therapy Association (APTA). This is an outstanding achievement and is the highest designation of membership within APTA. Members are chosen based on their contributions to the profession through leadership, influence, and achievements demonstrating frequent and sustained efforts to advance the profession for a period of 15 or more years. Dr. McCoy will be recognized at APTA's Conference and Exposition in Salt Lake City on June 27.
We are sending this electronic newsletter via a U of W Mailman List.
To subscribe, please email us at: rehab@uw.edu

If you have feedback on this edition or an item that you think should be included in a future newsletter, please email the editor, Randi Blaisdell:
blaisr@uw.edu

Visit us on the web!
http://rehab.washington.edu

Maximizing potential across the lifespan

Faculty News cont’d from page 7

Dr. Bombardier gives the Mitchell Rosenthal Memorial Research Lecture

Dr. Patterson featured in “Discovering Harborview”
Bellevue Reporter editor Craig Groshart wrote about his 'eye-opening' discoveries during a tour of Harborview Medical Center earlier this year. Part of Groshart's tour included a demonstration of SnowWorld, a groundbreaking experiment in virtual reality for pain control developed by Dr. Dave Patterson, professor, and his colleague, Dr. Hunter Hoffman. You may read the article here: http://www.bellevuereporter.com/opinion/189591901.html

Welcome New Faculty
Dr. Scott Campea joins the faculty as an assistant professor and Medical Director of Inpatient Rehabilitation at the VA Puget Sound Health Care System. His primary clinical interests are inpatient rehabilitation, specifically for people with spinal cord dysfunction. He also coordinates care for patients with multiple sclerosis (MS) and amyotrophic lateral sclerosis (ALS). Dr. Campea earned his medical degree from the University of Pennsylvania School of Medicine. He completed his physical medicine and rehabilitation residency at The Rusk Institute of Rehabilitation Medicine, NYU Langone Medical Center, and spinal cord injury medicine fellowship at Stanford University Medical Center.