Scholarly Activities
Department of Physical Medicine and Rehabilitation
September-November 2014

REGULAR FACULTY

Brenna Argall:
 Lectures:
 Turning Assistive Machines into Assistive Robots. Northwestern University, Evanston IL.
 October 29, 2014

James Atchison:
 Lectures:
 Interdisciplinary II- Anesthesia/ Pain Fellow Lecture (NMH) September 9, 2014


Opioid I- Anesthesia/ Pain Fellow Lecture (NMH) October 14, 2014

Faculty and Content Developer for Pri-Med's Annual Conference Midwest Program, in collaboration with ACP and Northwestern University. Rosemont, IL October 16, 2014

Opioids II- Anesthesia/Pain Fellow Lecture (NMH) October 21, 2014

Presentations:

Present at the Optum Health Education – 8th Annual Medical Director Forum. Title: “Optimal strategies to Manage Chronic Musculoskeletal Pain”. Las Vegas, NV, November 4, 2014


Rebecca Brashler:
 Teaching:
 M1 Class Fall of 2014 – Foundations of Clinical Ethics (Small Group Leader)

Chih-Hung Chang:
 Publications:
Grant Reviews:
Health Services Organization and Delivery Study Section (HSOD), Center for Scientific Review, National Institutes of Health

Nursing and Related Clinical Sciences Study Section (NRCS) (permanent member), Center for Scientific Review, National Institutes of Health

L. R. Cherney:
Elected to serve on the Executive Board of the Academy of Neurologic Communication Disorders and Sciences (ANCDS).

Presentations:

This poster has won a Meritorious Submission award, given to only 55 submissions of 1600 total submissions. This poster also won a Student Research Travel Award, which covers convention fees and travel expenses.


Deborah Gaebler:
Presentations:
Cerebral Palsy- Enhancing Clinical Outcomes with Technology- Challenges and Solutions, Key Note Speaker, Summer School of Neurorehabilitation, Baiona, Spain, September 14-19, 2014

Robots to the Rescue- Assisting Evaluation and Treatment Outcomes, Panel Discussion, Baiona, Spain, September 14-19, 2014

Teachings:
Area of Scholarly Concentration Enhances Medical Education, Feinberg School of Medicine, Northwestern University, Chicago www.feinberg.northwestern.edu/news/2014/10/AoSC-update.html

Robert N. Harden:
Publications:


Andres L Hendrix Jr:
Presentation:
New Lenox, IL (July 29, 2014)—The Silver Cross Neuroscience Institute will host a free Stroke from the Heart symposium on Saturday, Sept. 6 for physicians, physician assistants, nurses, paramedics and allied health professionals who are interested in increasing their knowledge of the management and treatment of acute stroke. September 2014

Allen Heinemann:
Peer reviewed publications:


Presentations:

1. **Heinemann AW**, Outcome measurement in USA: FIM, CARE tool and PROMIS, Keynote speaker, Regional Center of Knowledge Translation in Rehabilitation, Sunnaas Rehabilitation Hospital, Oslo, Norway, October 21, 2014.


Workshops:
Considerations in Evaluating the Effectiveness and Efficiency of Robot-Assisted Rehabilitation Therapy. Presented as part of the workshop “Maximizing clinical efficiency by harnessing technological advances,” International Society of Physical and Rehabilitation Medicine, Cancun, Mexico, June 3, 2014.

Elevating the Quality of Disability and Rehabilitation Research: Mandatory Use of the Reporting Guidelines. Presented as part of the workshop, “Meet the Editors.” International Society of Physical and Rehabilitation Medicine, Cancun, Mexico, June 4, 2014.

Lectures:
New Approaches to Measuring Quality of Life following Traumatic Brain Injury. RIC Academy, Chicago, IL, June 6, 2014.
Insider Perspective on Strategies to Improve Research Capacity-Building in Disability and Rehabilitation, Keynote speaker at the National Institute on Disability and Rehabilitation Research-sponsored Advanced Rehabilitation Research Training and Switzer Fellowship Summit, Arlington, VA, July 28, 2014.

Evidence, Theory, and Experience: Implementing Evidence in to Rehabilitation Practice (with Jennifer Moore and Jason Raad), RIC Grand Rounds, September 10, 2014.

Grant submitted:
Rick Hansen Institute - Implementing SCI-QOL into Clinical Practice: Enhancing Patient Outcomes using Common Data Elements and Implementation Science (PI)
Center of Excellence for PT Research

Grants in development:
PCORI, Effectiveness and Efficiency of Robot-Assisted Rehabilitation Therapy (Principal Investigator)

Professional Service:
Member, Institute of Medicine Standing Committee on Medical Experts to Assist Social Security on Disability Issues, 2014- present

Christina Marciniak


Abstracts:


Invited Lectures and Workshops:
Botulinum Toxins in the Treatment of Spasticity. Rush Regional Botulinum Toxin Course for Neurology and PMR Residents, 09/13/2014
Patient Assessment for Spasticity Interventions – Workshops Rush Regional Botulinum Toxin Course for Neurology and PMR Residents, 09/13/2014

Exercise and Rehabilitation in Parkinson’s Disease. Northwestern Medicine Parkinson’s Disease Symposium, 10/11/2014

Exercise in Parkinson's disease: what does the data tell us about neuroprotection and neurorestoration? AAPMR Annual Meeting Course Beyond L-Dopa: Exercise as Treatment in Parkinson Disease, 11/13/2014

Oral Research Presentations:
Osteoporosis in Adults with Cerebral Palsy, Oral Research Presentation, AAPMR Annual Meeting San Diego CA. November 14, 2014

Poster Research Presentations:

Course Director:
Let’s Talk: Update on Aphasia. AAPMR Annual Meeting. San Diego CA. November 15, 2014

Committee Updates:
American Board of Electrodiagnostic Medicine – Credentials Committee Member

Promoted to Chairperson of Panel A of the Northwestern IRB

Debjsan Mukherjee:
Publications:
ISSN: 00314005

Presentations:

Zev Rymer (with other PM&R Faculty):

Publications:
Published “Locomotor training modifies soleius monosynaptic motoneuron responses in human spinal cord injury” by Smith AC, Rymer WZ, Knikou M in Exp Brain Res. PMID: 25205562

Published “Control of motor unit firing during step-like increases in voluntary force” by Hu X, Rymer WZ, Suresh, NL in Front Hum Neurosci. PMID: 25309395

Published “Anomalous EMG-force relations during low-force isometric tasks in hemiparetic stroke survivors” by Suresh NL, Concepcion, NS, Madoff J, Rymer WZ in Exp Brain Res. PMID: 25224701

Presentations:
Lecture at Hand, Brain and Technology Conference in Ascona, Switzerland, 09/08/2014

Lecture at SSNR2014 on “How to assess and manage spasticity during rehabilitation” in Parador de Baiona, Spain, 09/16/2014

Invited talk at WeRob on “How to best use exoskeletons” with Dr. Arun Jayaraman, 09/17/2014

Gayle Spill:
Panel Presentation at the Annual American Society of Bioethics and Humanities, San Diego, CA, October 2014.

Preya Tarsney:

RESEARCH FACULTY

Anne Deutsch:
Peer reviewed Publications:

Presentations:


**Linda Ehrlich-Jones:**

Peer reviewed publications:


Presentations:

Song J, Lindquist LA, Chang RW, Semanik PA, Ehrlich-Jones LS, Lee J, Sohn M-W, & Dunlop DD. Sedentary Behavior is a Distinct Factor from Low Level of Moderate-to-Vigorous Activity for Incident Frailty. American College of Rheumatology Annual Scientific Meeting, Boston, MA, November 17, 2014.


Dunlop DD. The Association Between Accelerometer Monitored Sedentary Behavior and Observed Physical Function Loss. American College of Rheumatology Annual Scientific Meeting, Boston, MA, November 18, 2014.

Grants submitted:
NIH/NINR R21 Ehrlich-Jones (Principal Investigator)
Smart-FIT: Smartphone Fatigue Innovations Trial in Lupus

Grants in development:
NIH/NIAMS U01Ehrlich-Jones/Ramsey-Goldman (Principal Investigators)
Activity and Nutrition Trial in Lupus to Energize and Renew (ANTLER)

Honors:
2014 Addie Thomas Service Award from the Association of Rheumatology Health Professionals

Ongoing service:
Co-Chair WFO, Northwestern University
Rheumatology Research Foundation, Member, Board of Directors

Annie Simon:
Publications:


Fey NP, Simon AM, Young AJ and Hargrove LJ. Controlling knee swing initiation and ankle plantarflexion with an active prosthesis on level and inclined surfaces at variable walking speeds. IEEE Journal of Translational Engineering in Health and Medicine, 2014.

Conference Abstracts:

Presentations:
Department of Physical Medicine and Rehabilitation Grand Rounds, Medical College of Wisconsin, “Development of a neural interface for powered lowered limb prosthetics”, Milwaukee, WI.

Department of Rehabilitation Sciences, University of Pittsburgh, Pittsburgh, PA.
ADJUNCT / OTHER FACULTY

Rosemarie King:
Conference:

Jacqueline D Neal:
Academics:
Accepted to Northwestern Searle Teaching Fellowship for this academic year.

Theresa Pape:
Grant Proposal “Cross-cutting TMS Technology with Advanced Imaging for NeuroRehabilitation Treatment Applications”, Department of Defense, Defense University Research Instrumentation Program.

NORTHWESTERN UNIVERSITY PROSTHETIC - ORTHOTIC CENTER

Publications:


Fatone S, Johnson WB, Kwak S Using a 3D model of the AFO-Leg to explore the effects of combinations of axis misalignments. Prosthetics Orthotics International (in press).


Presentations:


Wong AWK, Heinemann AW, Ehrlich-Jones L, Connelly L, Semik P, Fatone S. “Comparison of the Orthotics and Prosthetics Users’ Survey (OPUS) and Orthotics and Focus on Therapeutic Outcomes (FOTO) Functional Status Measures for Persons with Lower Limb Amputation.” Presented at the American Congress of Rehabilitation Medicine, Toronto, ON, Canada, October 7-11, 2014.


Major MJ. “Clinical and Biomechanical Measures for Evaluating Postural Control in Individuals with Lower Limb Amputation.” Presented at the Jesse Brown VA Medical Center Research Seminar, Chicago, IL, November 14, 2014.


Cerutti, A, Bondre N, Major MJ. “Accelerometer-based systems used to collect patient gait data in and out of the clinic.” Presented at the Midwest Chapter of the American Academy of Orthotists and Prosthetists, One Day Fall Symposium, Hickory Hills, IL, November 15, 2014.

Meetings:

John Brinkmann and Chris Robinson attended the American Orthotic & Prosthetic Association National Assembly in Las Vegas Nevada, September 4-7, 2014.

Dr. Steven Gard attended the Lippincott Williams & Wilkins Journal Symposium in Philadelphia, PA, September 18-19, 2014.

Dr. Yeongchi Wu was an invited speaker at the VAMC in Minneapolis, MN, September 26, 2014, where he toured the biomedical engineering research laboratory of Andrew Hansen, PhD. At the VAMC, Dr. Wu presented “Post-operative & Pre-prosthetic Management of Residual Limbs” and “Dilatancy Prosthetic-Orthotic Technology” to medical and engineering staff.

Dr. Stefania Fatone attended the Archives of Physical Medicine and Rehabilitation (APMR) Editorial Board meeting held on October 8, 2014. The APMR Editorial Board met in conjunction with the American Congress of Rehabilitation Medicine (ACRM) 91st Annual Conference held October 7-11, 2014 in Toronto, Canada.

Defenses:


Laboratory Visits/Events:

Matt Quigley, a recent graduate of the Masters in Clinical Prosthetics and Orthotics program at La Trobe University in Melbourne Australia, joined NUPOC as a Research Extern from October 1 to November 30, 2014. Mr. Quigley is working under the guidance of Dr. Stefania Fatone helping with focus groups to be held as part of the newly funded NIH project “Interface Monitoring System to Promote Residual Limb Health” on which Dr. Fatone is Co-PI.

Appointments:

Lilly Tran, MS, has joined NUPOC as a Research Engineer. She completed her master’s degree at Columbia University in Mechanical Engineering with a focus in biomechanics; and conducted her undergraduate work in Mechanical Engineering at Syracuse University. She will contribute to multiple projects led by Drs. Fatone, Gard and Major.
Michael Cavanaugh, CPO /L, has joined the NUPOC teaching faculty as Lecturer. Mr. Cavanaugh is a graduate of NUPOC prosthetics and orthotics programs and an ABC-Certified Prosthetist Orthotist, licensed to practice in the State of Illinois. He brings 8 years of clinical experience, along with his background as an industrial engineer prior to entering the P&O field. In addition to course design and teaching experience at the University of Iowa, Mr. Cavanaugh has developed individualized teaching methods for children and young adults with autism.

Grant Submissions:

Stefania Fatone, PhD, was PI on a CDMRP Peer Reviewed Orthopedic Research Program Expansion Award proposal titled “Functional performance evaluation of the northwestern university flexible subischial vacuum (NU-FlexSIV) socket for persons with transfemoral amputation” submitted on October 24, 2014. Drs Steven Gard and Thomas Schnitzer are co-investigators on this proposal.

Stefania Fatone, PhD, was PI on a Peer Reviewed Orthopedic Research Program Idea Development Award proposal titled “No longer smooth: introducing striations into prosthetic socket construction to improve suspension, rotation, fit and comfort” submitted on October 24, 2014. Dr Steven Gard is a co-investigator on this proposal.

Stefania Fatone, PhD, was a co-investigator on an NIH R03 proposal titled “Effects of surgery on gait and balance in patients with cervical spondylotic myelopathy” submitted on October 16, 2014. Nader Dahdaleh, MD, from the Department of Neurological Surgery is the PI

Steven Gard, PhD, and Yeongchi Wu, MD, were co-PI’s on a proposal entitled, “Development of a Dilatancy Orthotic Fabrication System for Idiopathic Scoliosis” that was submitted to the Institute for Sustainability and Energy at Northwestern (ISEN) on November 3, 2014.

Letters of Intent: