Scholarly Activities
Department of Physical Medicine and Rehabilitation
December 14- February 15

REGULAR FACULTY

James Atchison:
Lectures:
12/16/14- Fellowship lecture- NMH Topic: Functional Measures

2/6/15- CME- NMH Lake Forest Hospital Topic: Optimizing Strategies to Manage Chronic Musculoskeletal Pain

2/9-2/10- Grand Rounds at Stanford University (CA) Topic #1: CRPS- Anesthesia Pain Center
Topic #2: Rational Pharmacology- Division of PMR&R

2/17/15- Fellowship Lecture- NMH Topic: WC/SSI/Disability/Impairment

Presentations:
2/19/15- The Chicago Bar Association- presentation Topic: Treating Pain in the 21st Century

Randy Calisoff:
Lecture:
1/13/15- Fellowship Lecture- NMH Topic: Fibromyalgia/Myofascial Pain

Chih-Hung Chang:
Grant Review:
Nursing and Related Clinical Sciences Study Section (NRCS) (permanent member), Center for Scientific Review, National Institutes of Health

Leora Cherney:
Publications:
Carpenter, J. & Cherney, L. R. Increasing aphasia treatment intensity in an acute inpatient rehabilitation program: A feasibility study. Aphasiology, Accepted for publication.

Presentations:
Cherney, L. R. (2015, February). Aphasia treatment across the modalities. Workshop presented at the University of Wisconsin – Eau Claire, Eau Claire, WI.


Deborah Gaebler:
Accepted for Publication:

Grant Awards:
Gaebler, D., Marciniak, CM., Co-I, Cerebral Palsy International Research Foundation, “Women with Disabilities: Promoting Patient-Centered Care in Mammography Screening” 3 year grant awarded


Gaebler, D., Co-I, Canadian Institutes of Health Research, “Evaluation of the effectiveness of robotic gait training and gait-focused physical therapy programs for children and youth with cerebral palsy: A mixed methods RCT” 5 year grant awarded to Holland Bloorview Kids Rehabilitation Hospital(Toronto).

R. Norman Harden:
Reviews:

Abstracts:


Conference:
Allen Heinemann:
Peer reviewed publications:


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

Arun Jayaraman:
Grant Proposal:
4 year CDMRP DOD grant proposal entitled " Impact of Powered Knee-Ankle Prosthesis on Everyday Community Mobility and Social Interaction in Individuals with Transfemoral Amputations ", Co-I Michael Goldfrab Vanderbilt University

Eric B. Larson:
Publications:

Presentations:

Christina Marciniak:
Publications:

Marciniak, CM. Li X. Zhou P. An Examination of Motor Unit Number Index in Adults with cerebral Palsy. Accepted for publication. Journal of Electromyography and Kinesiology

Grants Awards:
Gaebler, D., Marciniak, CM., Co-I, Cerebral Palsy International Research Foundation, “Women with Disabilities: Promoting Patient-Centered Care in Mammography Screening” 3 year grant awarded

Debjani Mukherjee:
Courses:
Course Instructor, MH&B 406: The Practice of Medical Humanities and Bioethics. Winter quarter. MA in Medical Humanities and Bioethics Program, Northwestern University.
Lectures:

**Mukherjee, D.** Ethics and researcher-participant relationship: On being a human subject. SMPP seminar series, RIC. December 5, 2014.

**Mukherjee, D.** Rehabilitation and Disability Ethics. Lecture-discussion for delegates visiting Northwestern Radiology from Ibadan, Nigeria as part of an NIH Fogarty Grant to improve research capabilities. December 15, 2014.

In January 2015, **Debjani Mukherjee, Ph.D.** assumed the role of Ethical/Legal editor of the official journal of the American Academy of Physical Medicine and Rehabilitation - PM&R: The journal of injury, function and rehabilitation.

**Christopher Reger:**

Abstracts:

Lectures:
NUPOC lecture January 28, 2015. Guidelines for physician referral

Conference:
American academy of orthotists and prosthetists- Hanger Education fair: Thursday February 5. Las Vegas ,NV; Prosthetic management of the medically complex patient

**Elliott Roth:**

Publications:
Regina S. Eum,1 Ronald T. Seel,2 Richard Goldstein,3 Allen W. Brown,4 Thomas K. Watanabe,5 Nathan D. Zasler,6 **Elliott J. Roth,**7 Ross D. Zafonte,3 and Mel B. Glenn3 "Predicting Institutionalization after Traumatic Brain Injury Inpatient Rehabilitation" JOURNAL OF NEUROTRAUMA 32:280–286 (February 15, 2015)DOI: 10.1089/neu.2014.3351

**Diane Rowles:**

Presentations:
Guest Lecture: Grand Rounds Vanderbilt Medical School, Department of Physical Medicine and Rehabilitation Vanderbilt Stallworth Rehabilitation Hospital, Nashville, TN. "Sexual Functioning and Fertility Following Spinal Cord Impairment", November 20, 2014

**Zev Rymer** (with other PM&R Faculty):

Publications:


Presentations:

Vineeta T Swaroop:
Publications:

Li-Qun Zhang:
Publications:

RESEARCH FACULTY

Randal Beer:
Publications:

Anne Deutsch:
Poster Presentation/abstract:

Professional Service:
Chair, Rehabilitation Nursing Foundation Research Fund Committee, 2015

Assaf Dvorkin:
Presentations:
Can I get your attention for a minute? Visuo-haptic environments for assessment and training of attention following brain injury. Department of Psychology, Interdisciplinary Center Herzliya, Israel, December 11, 2014

Linda Ehrlich-Jones:
Peer reviewed publications:

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

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

Marylou Guihan:
Publication:
“A Multi-Site Quality Improvement Project to Standardize the Assessment of Pressure Ulcer Healing in Veterans with Spinal Cord Injuries/Disorders” (Advances in Skin & Wound Care)

Grants:
Implementing a Checklist to Improve Skin Health in Outpatients with SCI (SCI QUERI)
April, 2015

Grant Proposals:
“Rates and Outcomes of Pressure Ulcer Surgery for Veterans with SCI/D” (VA HSR&D pilot)
December, 2014
“Patterns of health care use for male vs female Gulf War Veterans” (VA HSR&D Investigator Initiated Research) December, 2014

Mehdi Mirbagheri:
Publications:


Nina L. Suresh:
Publications:

Submitted to Stroke journal: “Increased opacity of ultrasound images in stroke-impaired hand muscles “ by Sudarshan Srivatsan, BS, William Zev Rymer, MD, PhD, Nina L Suresh, PhD. Feb 19, 2015

Grants Submitted:
American Heart Association Scientist Development Grant : Tracking the evolution of spasticity in acute stroke. Jan 22, 2015(Submitted as Principal PI)

NIH R21 Exploratory Grant: Tracking the evolution of spasticity in acute stroke. Feb 19, 2015(Submitted as Principal PI)

For Andrew Lai, Doctoral Candidate, Department of BioEngineering Northwestern University. Midwest Affiliate MWA Winter 2015 Predoctoral Fellowship, application number 15PRE25780004. Jan 14, 2015(Submitted as Co-Sponsor)

For Jourdan Ewoldt, Undergraduate, Department of Bioengineering, Johns Hopkins University. Midwest Affiliate Winter 2015 Undergraduate Student Research Program. “Quantification of the Spastic Response to the Modified Ashworth Test in Acute Stroke Subjects.”. Feb 3, 2015 (Submitted as Supervisor)
Conferences:
Accepted / IEEE EMBS conference on Neural Engineering (Conference paper) : “Fatigue-Related Alterations to Intra-Muscular Coherence” Lara M. McManus*, Student Member, IEEE, Xiaogang Hu, William Z. Rymer, Nina L. Suresh and Madeleine M. Lowery, Member, IEEE Jan 2015.

Meetings:
Research Grand Rounds, Rehabilitation Institute of Chicago “It takes a village to track spasticity, acute to chronic changes post-stroke”. Feb 9, 2015

ADJUNCT / OTHER FACULTY

Ross Arena:
Peer Reviewed Publications:


Arena R. Functional capacity and exercise training have earned a primary role in the assessment and treatment of patients with heart failure. Heart Failure Clinics. 2015;11:xv-xvii


Cahalin LP and Arena R. Breathing Exercises and Inspiratory Muscle Training in Heart Failure. *Heart Failure Clinics*. 2015;11:149-172


Active Funded Projects:

Comparing aerobic training to combined aerobic and inspiratory Muscle training in patients with pulmonary arterial hypertension: A Randomized controlled trial. Brazilian National Council for Scientific and Technological Development, 346,000 Reals (Visiting Professor Exterior).


Feasibility of urgent care partial pressure of end-tidal carbon dioxide measurement for heart failure patients: prognostic and randomized controlled study. Special program of international cooperation, Brazilian National Council for Scientific and Technological Development, 536,000 Reals (Special Visiting Researcher).
Interleukin-1 blockade in recently decompensated heart failure. NHLBI, $677,769 (co-investigator)

Heart failure substudy: A randomized, double-blind, placebo-controlled, event driven trial of quarterly subcutaneous canakinumab in the prevention of recurrent cardiovascular events among stable post-myocardial infarction patients with elevated hsCRP (CANTOS). Novartis Pharmaceuticals, 150,000 (Co-investigator)

Exercise therapy to reduce heart failure symptoms; sorting mechanisms and benefits. VA Merit Award, $1,100,000 (Co-investigator)

Invited Speaker Presentations:


New Indications for Cardiac Rehabilitation Programs. 30th Uruguayan Cardiology Congress, Montevideo, Uruguay, December 2014.

Worksite Health and Wellness Programs as a Model for Primary Prevention Cardiac Rehabilitation. 30th Uruguayan Cardiology Congress, Montevideo, Uruguay, December 2014.

Special Appointments/Distinctions:

Guest Editor, Progress in Cardiovascular Disease: 2013 Global Congress on Physical Activity - All Hearts Need Exercise: A Global Call to Action by the AHA

Guest Editor, Heart Failure Clinics: Exercise and Rehabilitation in Heart Failure: A Physiologic and Clinical Perspective

Guangdong Center Research Advisory Committee, Guangdong Work Injury Hospital in Guangzhou, China

Editorial Board Member, Progress in Cardiovascular Diseases

Clinical Research Expert Committee Member, University of California Irvine Institute for Clinical and Translational Science.

William Armstrong:

Presentations:

William Armstrong is currently in Cambodia from January 31st through February 26th. He is there to conduct the World Health Organization’s Wheelchair Service Training Program – Intermediate Level (http://www.who.int/disabilities/technology/en/), a 10 day training program, at Veterans International – Cambodia (http://www.ic-vic.org/) in Phnom Penh. This program will be attended by physical therapists, technicians and physicians from Phnom Penh and many other areas in Cambodia. These activities are supported by United States Aid for International Development (USAID).
William Armstrong is also a primary contributor in the development of an online, pre-learning training-of-trainers program relative to the WHO wheelchair training programs. The online program will prepare potential trainers for their in-person attendance at a training-of-trainers course. This work is conducted in collaboration with Management Sciences for Health (MSH) (http://www.msh.org/) and UCP (http://www.ucpla.org/programsservices/). These activities are also supported by United States Aid for International Development (USAID).

Rosemarie King:
Grant Reviewer:

Conference:
AHA Sessions, Chicago, 11/18/2015. Moderator, Symposium on Recognition and Risk of depression in stroke survivors and their caregivers


Chandramouli Krishnan:
Publications:


Sangeetha Madhavan:
Accepted for Publication:
NORTHEASTERN UNIVERSITY PROSTHETIC - ORTHOTIC CENTER

Publications:


Presentations:


Craig Heckathorne, Kathryn Waldera, Margaret Parker, Stefania Fatone and Steven Gard contributed a webinar, “Prostheses for Farmers and Ranchers: What Is Used, What Is Needed” (2014), available free of charge (or with a fee to receive 0.75 Continuing Education Credit if desired) on the Paul E. Leimkuehler Online Learning Center of the American Academy of Orthotists & Prosthetists. The webinar examines prosthetic components used by agricultural workers; determines work activities that are helped or hindered by prosthesis use; identifies prosthetic components that cause problems; and suggests further research and development.

Meetings:

Dr Stefania Fatone, PhD, was invited to moderate a free paper session on orthotics at the 41st American Academy of Orthotists and Prosthetists Annual Meeting & Scientific Symposium held on February 18-21, New Orleans, Louisiana.

Laboratory Visits/Events:
The Northwestern University Prosthetics-Orthotics Center (NUPOC) hosted a site visit and educational program, “Innovative Approaches to Rehabilitation” by Yeongchi Wu, MD, for a delegation of 12 healthcare professionals in rehabilitation from the Shandong Province, China, on December 17, 2014.

Ms. Suzanne McConn, BA, has joined NUPOC as a student investigator who will conduct research on “Fall Risk and Prosthetic Influence on Gait Biomechanics in Upper Limb Amputees” under the mentorship of Matthew Major, PhD, Principal Investigator of the study. Ms. McConn is a master’s degree student in biomedical engineering at Northwestern University and her research at NUPOC will be conducted in partial fulfillment of her MS degree. She completed her Bachelor of Arts Summa Cum Laude at Concordia (Moorhead, MN), where she majored in mathematics and Spanish with a minor in chemistry.

Felix Starker, Group Manager for Applied Biomechanics, Department Biomechatronic Systems at Fraunhofer Institute for Manufacturing Engineering and Automation (Stuttgart, Germany), returned to visit the new NUPOC research and education facilities on January 14, 2015, facilitated by Matthew Major, PhD. As a graduate student at Stuttgart University, Mr. Starker had been a Visiting Scholar at NUPOC, where he modified the Mauch Hydraulic Ankle in partial fulfillment of his diplom ingenieur, the German equivalent of a Master’s degree in engineering. Read more about Felix Starker and the Mauch Hydraulic Ankle in Capabilities 18(1)1-3, 2010.

Juan Fernando Ramirez-Patino, PhD, Associate Professor in Mechanical Engineering at the Universidad Nacional de Colombia, Sede Medellin, visited NUPOC on January 16, 2015, facilitated by Stefania Fatone, PhD. Drs Ramirez-Patino and Fatone are seeking collaborative opportunities.

Grant Submissions:

Stefania Fatone, PhD, and Deborah Gaebler-Spira, MD, were CoPIs on an application titled “Contribution of Footwear to Effectiveness of Leg Braces Used by Children with Cerebral Palsy to Assist Standing and Walking” submitted December 29, 2014 to The Auxiliary Board of NMH FY2016 Grant Initiative.

Stefania Fatone, PhD, and Pranitha Gottipati, PhD (post-doctoral fellow) were co-investigators on an application titled “Effects of surgery on gait and balance in patients with cervical spondylotic myelopathy” (PI: Nader Dadaleh, MD) submitted December 29, 2014 to The Auxiliary Board of NMH FY2016 Grant Initiative.


Letters of Intent:
**Stefania Fatone, PhD**, was a collaborator on a letter of intent titled “Numerical Model Protocol to Validate Skin-Like Sensors for Use in Prosthetic Sockets” (PI: Juan Fernando Ramirez-Patino, PhD) submitted January 6, 2015 to the National Academy of Sciences Partnerships for Enhanced Engagement in Research (PEER).
