

Scholarly Activities
Department of Physical Medicine and Rehabilitation
December 2017 – February 2018

REGULAR FACULTY

Randy Calisoff

George C. Chang Chien, **Randy L. Calisoff**, and James W. Atchison. Chapter 18, "*Chronic Pain Rehabilitative Programs*," pages 65-67. In, J.E. Pope, T.R. Deer (eds), Treatment of Chronic Pain Conditions, DOI 10.1007/978-1-4939-6976-0_18
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Abstract "Effects of a 4-week Intensive Interdisciplinary Pain Management Program for Workers Compensation Patients with Complex Regional Pain Syndrome on Pain, Function and Opioid Use", accepted for presentation American Academy of Pain Medicine's 2018 Annual Meeting, April 26-29, Vancouver BC

Andrea Domenighetti

Submitted application to the AR3T call for innovative research projects in rehabilitation: "Development of a New 3D-Printed Tissue Scaffold for Discovery and Therapeutic Applications in Cerebral Palsy ". **Domenighetti** and Shah.

Awarded a Shirley Ryan AbilityLab-CHNF Infrastructure Center Grant: "Effect of Inflammation in Hypoxia-Induced Plasticity in Individuals with Spinal Cord Injury". Leung, Sandhu and **Domenighetti**.

Awarded financial support from the Shirley Ryan AbilityLab-Department of Physical Therapy (Northwestern) to investigate "Rescuing Myogenic Potential of Muscle Stem Cells in Children with Cerebral Palsy using Cytidine Analog 5-Azacytidine: a genetic and epigenetic profiling."

Presented at the 2018 AAP Annual Meeting. Atlanta, Georgia. "Developing a 3-D Printed Cell Culture Assay to Study Muscle Contractures in children with Cerebral Palsy". Angela M. Taylor, M. Hammersley, J. Hendricksen, R. Shah, **A. Domenighetti**.

Frontiers Journals - Working Group on "Professional Identity and an Academic Track in Translational Medicine".

Meeting with the EUREKA Institute for Translational Medicine. A nonprofit organization committed to preparing future leaders in translational medicine. Tucson AZ

Deborah Gaebler

C. Chambers, T. Sokhey, **D. Gaebler-Spira**, K. Kording: The integration of Probabilistic Information During Sensorimotor Estimation in Unimpaired in Children with Cerebral Palsy.

PLOS: <https://doi.org/10.1371/journal.pone.0188741>

“The Validity and Reliability of the Test of Arm Selective Control for Children with Cerebral Palsy: A Prospective Cross-sectional Study”, *Developmental Medicine & Child Neurology*.

Chapter: “Functional Dystonias”, SpringerLink online platform

Allen Heinemann

Peer-Reviewed Publications

Boninger ML, Field-Fote EC, Kirshblum SC, et al. Research progress from the SCI Model Systems (SCIMS): An interactive discussion on future directions. *The journal of spinal cord medicine*. 2018;41(2):216-222.

Carlozzi NE, Goodnight S, Umlauf A, et al. Motor-free composites from the National Institutes of Health Toolbox Cognition Battery (NIHTB-CB) for people with disabilities. *Rehabil Psychol*. 2017;62(4):464-473.

Carlozzi NE, Tulskey DS, Wolf TJ, et al. Construct validity of the NIH Toolbox Cognition Battery in individuals with stroke. *Rehabil Psychol*. 2017;62(4):443-454.

Cohen ML, Tulskey DS, Holdnack JA, et al. Cognition among community-dwelling individuals with spinal cord injury. *Rehabil Psychol*. 2017;62(4):425-434.

Gecht J, Mainz V, Boecker M, et al. Development of a short scale for assessing economic environmental aspects in patients with spinal diseases using Rasch analysis. *Health Qual Life Outcomes*. 2017;15(1):196.

Holdnack JA, Iverson GL, Silverberg ND, Tulskey DS, Heinemann AW. NIH toolbox cognition tests following traumatic brain injury: Frequency of low scores. *Rehabil Psychol*. 2017;62(4):474-484.

Holdnack JA, Tulskey DS, Slotkin J, et al. Nih toolbox premorbid ability adjustments: Application in a traumatic brain injury sample. *Rehabil Psychol*. 2017;62(4):496-508.
Johnson NX, Marquine MJ, Flores I, et al. Racial Differences in Neurocognitive Outcomes Post-Stroke: The Impact of Healthcare Variables. *J Int Neuropsychol Soc*. 2017;23(8):640-652.

Ketchum JM, Cuthbert JP, Deutsch A, et al. Representativeness of the Spinal Cord Injury Model Systems National Database. *Spinal Cord*. 2018;56(2):126-132.

LaVela SL, **Heinemann AW**, Etingen B, Miskovic A, Locatelli SM, Chen D. Relational empathy and holistic care in persons with spinal cord injuries. *The journal of spinal cord medicine*. 2017;40(1):30-42.

Magasi S, Harniss M, Tulsy DS, Cohen ML, Heaton RK, Heinemann AW. Test accommodations for individuals with neurological conditions completing the NIH Toolbox-Cognition Battery: An evaluation of frequency and appropriateness. *Rehabil Psychol*. 2017;62(4):455-463.

Magasi S, Wong A, Miskovic A, Tulsy D, Heinemann AW. Mobility Device Quality Affects Participation Outcomes for People With Disabilities: A Structural Equation Modeling Analysis. *Arch Phys Med Rehabil*. 2018;99(1):1-8.

Nitsch KP, Casaletto KB, Carlozzi NE, Tulsy DS, **Heinemann AW**, Heaton RK. Uncorrected versus demographically-corrected scores on the NIH Toolbox Cognition Battery in persons with traumatic brain injury and stroke. *Rehabil Psychol*. 2017;62(4):485-495.

Tulsy DS, Carlozzi NE, Holdnack J, et al. Using the NIH Toolbox Cognition Battery (NIHTB-CB) in individuals with traumatic brain injury. *Rehabil Psychol*. 2017;62(4):413-424.

Tulsy DS, Carlozzi NE, Holdnack J, et al. Using the NIH Toolbox Cognition Battery (NIHTB-CB) in Individuals With Traumatic Brain Injury. *Rehabilitation Psychology*. 2017;62(4):413-424.

Tulsy DS, **Heinemann AW**. The clinical utility and construct validity of the NIH Toolbox Cognition Battery (NIHTB-CB) in individuals with disabilities. *Rehabil Psychol*. 2017;62(4):409-412.

Tulsy DS, Holdnack JA, Cohen ML, et al. Factor structure of the NIH Toolbox Cognition Battery in individuals with acquired brain injury. *Rehabil Psychol*. 2017;62(4):435-442.

Wong AWK, Lau SCL, Cella D, et al. Linking of the quality of life in neurological disorders (Neuro-QoL) to the international classification of functioning, disability and health. *Quality of life research : an international journal of quality of life aspects of treatment, care and rehabilitation*. 2017;26(9):2435-2448.

Proposals Submitted

Geriatric Emergency Department Innovations (Dresden Heinemann co-PIs, AHRQ R01)
Dissemination and Implementation of the Emergency Medicine Geriatric Response and Evaluation Tool "EGRET" (Post AHRQ R21)
DOD CMDRP Prosthetics (Jayaraman)

Proposals in Development

NIDILRR RRTC on Employment of People with Physical Disabilities
NIDILRR DRRP on Community Living and Participation with UIC

Service Activities

Member, Committee on Functional Assessment for Adults with Disabilities, National Academies of Sciences, Engineering, and Medicine's, 2017 – present.
Member, Advisory Board, National Center for Medical Rehabilitation Research, 2016-2019.

Christina Marciniak

Marciniak C, McAllister P, Walker H, Brashear A, Edgley S, Deltombe T, Khatkova S, Banach M, Gul F, Vilain C, Picaut P. Efficacy and safety of abobotulinumtoxinA (Dysport®) for the treatment of hemiparesis in adults with upper limb spasticity previously treated with botulinum toxin: sub-analysis from a Phase 3, randomized controlled trial. *PM&R*. 2017 Dec;9(12): 1181-1190. PMID: 28625615

W. Zev Rymer

Mentor for Training in Grantsmanship for Rehabilitation Research (TIGRR) Workshop, Charleston, NC, January 9-13

Invited lecturer: "Strategies to Enhance Neural Plasticity Following Incomplete SCI in Man: Application of Acute Intermittent Hypoxia", UC Irvine, February 23

Diane Dudas Sheehan

Sheehan, D.D. & Grayhack, J. (2017). Pediatric Scoliosis and Kyphosis: An Overview of Diagnosis, Management, and Surgical Treatment. *Pediatric Annals*. 2017; 46(12):e472-e480
<https://doi.org/10.3928/19382359-20171113-01>

Teaching: Fall 2017 Small group Leader for Ethics in Action Class – M2 medical students, NU

PM&R Pediatric Resident Lecture - repeated series:
1/19/18 "Neuromuscular Scoliosis Evaluation and Management"

1/30/18 "Comprehensive Evaluation and Practical Treatment of Children with Wounds"

RESEARCH FACULTY

Anne Deutsch

Daras, L. C., Ingber, M. J., Carichner, J., Barch, D., Deutsch, A., Smith, L. M., ... Andress, J. Evaluating hospital readmission rates after discharge from inpatient rehabilitation. *Archives of Physical Medicine and Rehabilitation*. DOI: 10.1016/j.apmr.2017.07.008

Daras, L. C., Ingber, M. J., Deutsch, A., Hefele, J. G., & Perloff, J. Geographic region and profit status drive variation in hospital readmission outcomes among inpatient rehabilitation facilities in the United States. *Archives of Physical Medicine and Rehabilitation*. DOI: 10.1016/j.apmr.2017.11.011

Deutsch, A. (2017). Health policy. In P. D. Larsen (Ed.), *Lubkin's chronic illness: Impact and intervention* (10 ed., pp. 547-560). Jones & Bartlett Learning.

Peer-Reviewed Presentation: Post-Acute Care in the United States. University of Toronto, Rehabilitation Sciences. Toronto, Ontario, Canada. January 16, 2018

Linda Ehlich-Jones

Pinto D, Song J, Lee J, Chang RW, Semanik PA, Ehrlich-Jones LS, Pellegrini CA, & Dunlop DD. (2017). Association between sedentary time and quality of life from the Osteoarthritis Initiative: Who might benefit most from treatment? *Archives of Physical Medicine & Rehabilitation*, 98, 2485-2490.

Proposal Submitted: Rehabilitation Research and Training Center on Promoting Healthy Aging for People with Long-Term Physical Disabilities, Research Project 4: Adaptation and Implementation of an Evidence-Based Physical Activity Program for People with Parkinson's disease.

Member, Experts in Arthritis Advisory Committee for the US Bone and Joint Initiati

Marylou Guihan

Brennan MB, Huang ES, Lobo JM, Kang H, **Guihan M**, Basu A, Sohn MW. Longitudinal trends and predictors of statin use among patients with diabetes. *J Diabetes Complications*. 2018 Jan;32(1):27-33

2018 Association for Advancement of Wound Care (AAWC) - Pressure Ulcer Summit - Atlanta, GA Invited presentation: (2/10/18):

Guihan M, Bates-Jensen B, Hill J, Khan H, Thomason S, Powell-Cope G. Implementing the Spinal Cord Injury Pressure Ulcer Monitoring Tool (SCI-PUMT).

Sherri Lavela

Publications (published; in press, revised):

Etingen B, Miskevics S, **LaVela SL**. The relationship between pain interference and psychosocial well-being among Veterans with spinal cord injuries/disorders. *Journal of Neuroscience Nursing*. 2018;50(1):48-55.

Fix GM, VanDeusen Lukas C, Bolton RE, Hill JN, Mueller N, **LaVela SL**, Locatelli SM, Bokhour BG. Patient-Centered Care is a way of doing things: How healthcare employees conceptualize patient-centered care. *Health Expectations*. *Health Expect*. 2018;21(1):300-307.

Evans CT, Fitzpatrick MA, Jones MM, Burns SP, Poggensee L, Ramanathan S, **LaVela SL**, Safdar N, Suda KJ. Prevalence and factors associated with multidrug-resistant Gram-negative organisms in patients with spinal cord injury. *Infect Control Hosp Epidemiol*. 2017;38(12):1464-1471.

LaVela SL, Balbale SN, Hill JN. Experience of using Photovoice in individuals with spinal cord injury. *Topics in SCI Rehabilitation*. *In Press*.

Hill JN, Etingen B, Miskevics S, **LaVela SL**. Correlates of self-reported physical function in individuals with spinal cord injuries and disorders: does self-efficacy matter? *Spinal Cord*. *In Press*. [PMID: 28585558]

Etingen B, Locatelli SM, Miskevics S, **LaVela SL**. Examining the relationship between post-traumatic stress disorder and social participation among Veterans with spinal cord injuries and disorders. *Disability and Rehab. In Press*. 2017. [PMID: 28743195]

Ramanathan S, Suda KJ, Fitzpatrick MA, Poggensee L, **LaVela SL**, Burns SP, Evans CT. Response to Multi-drug-resistant Acinetobacter: Risk Factors and outcomes in veterans with spinal cord injuries and disorders. *Am J Infect Control*. In Press.

Bokhour, BG, Fix GM, Mueller NM, Barker AM, **LaVela SL**, Hill JN, Solomon JL, VanDeusen Lukas C. How can healthcare organizations implement patient-centered care? Examining a large-scale cultural transformation. *BMC Health Services Research*. In Press.

Hill JN, Locatelli SM, Bokhour B, Fix G, Solomon J, Muller N, **LaVela SL**. Use of the Consolidated Framework for Implementation Research (CFIR) to Evaluate Broad-Scale System Change. *BMC Research Notes*. (Revisions submitted)

LaVela SL, Etingen B, Locatelli SM, Heinemann AW. What determines low satisfaction with life in persons with SCI/D? *Journal of Spinal Cord Medicine*. Accepted with revisions.

Balbale SN, Gawron A, **LaVela SL**. Perceptions of patient-centered care among Veterans with gastroesophageal reflux disease on proton pump inhibitor therapy. *Patient Experience Journal*. (Revisions submitted)

Grants Funded:

National Multiple Sclerosis Foundation. *Evaluating the Use of Acute Intermittent Hypoxia to Enhance Motor Function in Persons with Multiple Sclerosis*. PI: **LaVela**; Co-I(s): Rymer, Jayaraman, Sandhu, Motl (Notice of funding – October 2017).

Department of Defense. *Perspectives and Preferences for Weight Management after Spinal Cord Injury*.

PI: **LaVela**; Co-I(s): Ehrlich-Jones, Heinemann, Applebaum, Pedersen, Pellegrini, Goldstein

Paralyzed Veterans of America Education Foundation. *Developing a Curriculum on Grief/Loss due to SCI for Health Providers*. PI: **LaVela**; Co-I(s): Bombardier, Burkhart.

[funding period: June 2017-June 2018]

Jessica Pedersen

Presented: Results of SurveyMonkey Survey Pertaining to Stowage of Wheelchairs Presented to stakeholders from airlines, consumer organizations, PVA, and participants of RESNA ANSI Standards Meeting on Air Travel, Telephone Conference, January 25, 2018.

Proposals Submitted:

Craig H. Neilsen Foundation. LOI “Clinical Evidence for Support of Spinal Curves in Wheelchair Seating”

Switzer Fellowship: Department of HHS, NIDILRR

Service Activities:

The Kids Equipment Network, Volunteer Equipment Clinic providing children with gently used wheelchairs and seating equipment, Alden Village, Bloomingdale, IL. December 16, 2017

Host of #2 Consumer Committee RESNA ANSI Standards Meeting on Air Travel

Ming Wu

Hsu CJ, Kim J, Roth EJ, Rymer WZ, **Wu M.**, [Forced Use of the Paretic Leg Induced by a Constraint Force Applied to the Nonparetic Leg in Individuals Poststroke During Walking.](#) Neurorehabil Neural Repair. 2017 Dec;31(12):1042-1052. doi: 10.1177/1545968317740972. Epub 2017 Nov 16. PMID: 29145773

NORTHWESTERN UNIVERSITY PROSTHETIC AND ORTHOTIC CENTER

Publications:

Dillon MP, Quigley M, and **Fatone S** (2017) "A Systematic Review Describing Incidence Rate and Prevalence of Dysvascular Partial Foot Amputation; How Both Have Changed Over Time and Compare to Transtibial Amputation." Systematic Reviews, 21;6(1):230. doi: 10.1186/s13643-017-0626-0.. <https://systematicreviewjournal.biomedcentral.com/articles/10.1186/s13643-017-0626-0>

Quigley M, Dillon M, **Fatone S** (in press) Development of shared decision making resources to help inform difficult healthcare decisions: an example focused on dysvascular partial foot and transtibial amputation. Prosthetics and Orthotics International.

Fatone S, Caldwell R (2018) Emboîture sous-ischiatique flexible avec prise sous vide mise au point par la Northwestern University pour les personnes ayant subi une amputation transfémorale – partie 1: description technique. [Northwestern University Flexible Subischial Vacuum Socket for Persons with Transfemoral Amputation: Part 1 Description of Technique.] Le Journal De L'Orthopedie, 18(66).

Major MJ, Serba CK, Chen X, Reimold N, Ndubuisi-Obi F, Gordon KE. Proactive Locomotor Adjustments Are Specific to Perturbation Uncertainty in Below-Knee Prosthesis Users. Scientific Reports, January 30 2018. <www.nature.com/articles/s41598-018-20207-5>

Presentations:

John Brinkmann, CPO, FAAOP, and **Spencer Leckrone (MPO 2018)**, presented the webinar "What Is 'Behavioral Science', and What Does It Mean for My Practice," for the AAOP Behavioral Sciences Society.

Steven A. Gard, PhD, was invited to speak about STEM opportunities in biomedical engineering (BME) and prosthetics and orthotics (P&O) during career day at Waubonsie Valley High School (Aurora, IL).

John T. Brinkmann, MA, CPO/L, FAAOP(D), Monica Minetola, MS, CPO, (BLP17) and Tyler Deleo, MSOP. Organized Session: An Introduction to Behavioral Science: Concepts, Research, and Skills. American Academy of Orthotists & Prosthetists Annual Meeting & Scientific Symposium, February 14-17, 2018, New Orleans, Louisiana.

Stefania Fatone, PhD, BPO (Hons) lectured on “Hemiplegic Gait” to the 2nd year residents at the Shirley Ann Ryan Ability Lab on December 8, 2017.

Stefania Fatone, PhD, BPO (Hons) presented along with Linda Wolter and Kathy Mustea on “Working with the Northwestern Office of Sponsored Research (OSR)” as part of the NUCATS Seminar Series on Navigating the Research Enterprise held on December 18, 2017.

Stefania Fatone, PhD, BPO (Hons), and **Ryan Caldwell, CP, FAAOP**, taught the NU-FlexSIV Socket Course on February 6-7, 2018, to 8 prosthetists from the UK and Scotland. Pace Rehabilitation sponsored the course held in Bredbury, Stockport, Cheshire, UK.

Fatone S, Caldwell R, Stine R, Tran L, Angelico J (2018) Evaluation of the NU-FlexSIV Socket for Persons with Transfemoral Amputation: Interim Results. American Academy of Orthotists & Prosthetists Annual Meeting & Scientific Symposium, February 14-17, 2018, New Orleans, Louisiana.

Quinlan J, Tran L, Yohay J, Poziembo B, Fatone S (2018) Mechanical Testing of Textured Prosthetic Sockets Provides Insight on Improving Suspension. American Academy of Orthotists & Prosthetists Annual Meeting & Scientific Symposium, February 14-17, 2018, New Orleans, Louisiana.

Fatone S, Charlton P, Barnett C, Ramstrand N (2018) Balancing Act: Exploring Clinical, Theoretical and Evidence-Based Perspectives in the Optimization of Balance using Orthoses in Peripheral Neuropathy (symposium). American Academy of Orthotists & Prosthetists Annual Meeting & Scientific Symposium, February 14-17, 2018, New Orleans, Louisiana.

Gard S, Nepomuceno A, Stine R, Brinkmann J, Boutwell E (2018) A model to explain the effect of shock-absorbing pylons on gait. American Academy of Orthotists & Prosthetists Annual Meeting & Scientific Symposium, February 14-17, 2018, New Orleans, Louisiana.

Matthew Major, PhD, “Berg Balance Scale for Measuring Functional Balance in Persons with Lower Limb Loss”. Invited presentation for Hands-on Outcome Measure Symposium of the 44th American Academy of Orthotists & Prosthetists Annual Meeting & Scientific Symposium, New Orleans, Louisiana, February 17, 2018.

Zuniga JM, **Major MJ**, Peck JL, Srivastava R, Pierce J, Stergiou N. Technical, Clinical and Functional Considerations for the Development of 3D Printed Upper-Limb Prostheses. Presented at the 44th American Academy of Orthotists & Prosthetists Annual Meeting & Scientific Symposium, New Orleans, Louisiana, February 14-17, 2018.

Akins J, Poretti K, Eigenbrot S, Miller K, Russell M, Surratt K, Jenks T, **Major MJ**. Turning of individuals with unilateral lower-limb loss: preference and biomechanics. Presented at the 44th American Academy of Orthotists & Prosthetists Annual Meeting & Scientific Symposium, New Orleans, Louisiana, February 14-17, 2018.

Miller K, Russell M, Surratt K, Jenks T, Poretti K, Eigenbrot S, Akins J, **Major MJ**. Validity of a wearable sensor system for assessing balance in high-functioning lower limb prosthesis users. Presented at the 44th American Academy of Orthotists & Prosthetists Annual Meeting & Scientific Symposium, New Orleans, Louisiana, February 14-17, 2018.

Chang SR, **Major MJ**, Gard SA. Mechanical characterization of prosthetic feet to predict effective ankle joint stiffness. Presented at the 44th American Academy of Orthotists & Prosthetists Annual Meeting & Scientific Symposium, New Orleans, Louisiana, February 14-17, 2018.

Major MJ, Chen X, Serba CK, Reimold N, Ndubuisi-Obi F, Gordon KE. Below-knee prosthesis users make specific anticipatory locomotor adjustments to resist lateral perturbation. Presented at the 44th American Academy of Orthotists & Prosthetists Annual Meeting & Scientific Symposium, New Orleans, Louisiana, February 14-17, 2018.

J. Chad Duncan, PhD, CPO, CRC and **Michael Lynn Hoggatt**, (MPO 2018). Certificate Program: Fundamental Principles of Behavioral Science for the Prosthetist Orthotist: Methods for Assessing Patient Care Satisfaction. 44th Academy Annual Meeting and Scientific Symposium, February 14-17, 2018 in New Orleans, LA.

Michael Lynn Hoggatt, (MPO 2018) and **J. Chad Duncan, PhD, CPO, CRC**. Poster: Participatory Visual Methods in Prosthetic Care: An Integrative Framework and Practice Implications. 44th Academy Annual Meeting and Scientific Symposium, February 14-17, 2018 in New Orleans, LA.

Awards:

Kyle Miller and Sheila Pach (MPO 2018) are recipients of the 2017 [Tamarack Awards](#). Since 2014, the generosity of J. Martin Carlson, CPO, FAAOP, owner and chief engineer of Tamarack Habilitation Technologies (Blaine, MN), enables NUPOC to confer a Tamarack Award on two NUPOC MPO students who demonstrate excellence in orthotics.

Michael Hoggatt, MPO 2018 class, and **Charity Smith**, MPO 2019 class, have been selected to receive the International African American Prosthetic & Orthotic Coalition (IAAPOC) Sam D. Benson Scholarship.

J. Chad Duncan, CPO, PhD, CRC, received the Outstanding Educator Award, from the American Academy of Orthotists and Prosthetists (AAOP). The award will be given at the 44th Academy Annual Meeting & Scientific Symposium in New Orleans, LA, February 14-17, 2018.

Yeongchi Wu, MD, will receive an Honorary Academy Membership Award from the American Academy of Orthotists and Prosthetists (AAOP). The award will be given at the 44th Academy Annual Meeting & Scientific Symposium in New Orleans, LA, February 14-17, 2018.

Meetings:

Stefania Fatone, PhD, BPO (Hons), was the featured speaker at a seminar series hosted by The Department of Biomechanics and The Center for Research in Human Movement Variability (MOVCENTR) at the University of Nebraska (Omaha). Dr. Fatone presented The NU-FlexSIV Socket: Development, Research, and Dissemination.

Stefania Fatone, PhD, BPO (Hons), participated in the VA Rehabilitation Research & Development's Scientific Merit Review Board subcommittee for Rehabilitation Engineering & Prosthetics/Orthotics held in Arlington VA on February 27, 2018.

Stefania Fatone, PhD, BPO (Hons), participated in the Orthotic and Prosthetic Education and Research Foundation (OPERF) strategic planning day, held in New Orleans, LA on February 14, 2018. Dr. Fatone is a member of the OPERF Board and Chair of the Research Committee.

Laboratory Visits/Events:

J. Chad Duncan, CPO, PhD, CRC, presented information about NUPOC as a biomedical engineering laboratory at the 47th Annual Career Day for Girls sponsored by the Robert J. McCormick School of Engineering and the Society of Women Engineers (SWE) on February 24, 2018. This outreach program was organized by **R. J. Garrick**, PhD.

Grant Awards:

Kobe College of Medical Welfare in Japan sponsored a "NU-FlexSIV Socket Course" taught by **Stefania Fatone, PhD, BPO (Hons)**, and **Ryan Caldwell, CP**, to be held in Sanda, Japan on March 9-11, 2018.

Grant Submissions:

Dr. Stefania Fatone, PhD, BPO(Hons), was PI on an application to the DOD Orthotics and Prosthetics Outcomes Research Program for the project titled "Comparative Effectiveness of Socket Casting Methods: Improving Form and Fit" with co-investigators Dr. Andrew Hansen from the Minneapolis VA and Dr. Andrea Cutti from INAIL, Italy, submitted on January 8, 2018.

Dr. Stefania Fatone, PhD, BPO(Hons), was a co-investigator on an application to the National Institutes of Health for the project titled "The influence of 3D printed prostheses on neural activation patterns of the primary motor cortex in children with unilateral congenital upper-limb reductions" (PI: Jorge Zuniga, PhD, University of Nebraska) submitted on February 5, 2018.

Steven Gard, PhD, was PI on an application to the DOD Orthotics and Prosthetics Outcomes Research Program for the project entitled, “Optimal Selection of Prosthetic Knees and Feet Combinations for Improving Walking and Standing Performance in Transfemoral Prosthesis Users” submitted on January 8, 2018.

Grant LOI Submissions:

Steven Gard, PhD, submitted a letter of intent for a Small Project in Rehabilitation Research (SPiRE) proposal entitled, “Development and Evaluation of a Shock Absorbing Prosthetic Ankle Mechanism” to the Department of Veterans Affairs, Rehabilitation Research & Development Program on February 1, 2018.

OTHER FACULTY

Assaf Dvorkin:

Chen K, Xiong B, Ren Y, **Dvorkin AY**, Gaebler-Spira D, Sisung CE, & Zhang LQ (2018). Ankle passive and active movement training in children with acute brain injury using a wearable robot. J Rehabil Med. 50(1): 30-36.