



Blackman, James A.

Professor & Head, Division of Developmental Pediatrics, Department of Pediatrics
Director of Research, Kluge Children's Rehabilitation Center
University of Virginia

Research Interests

Early identification of developmental disabilities, muscle relaxant drugs, and high risk infant follow-up

Recent Publications

Blackman JA, Gurka MJ. Developmental and behavioral comorbidities of asthma in children. J DEV BEHAV PEDI 2007; 28(2):92-99.

Hymel KP, Makoroff KL, Laskey AL, Conaway MR, Blackman JA. Mechanisms, clinical presentations, injuries, and outcomes from inflicted versus noninflicted head trauma during infancy: Results of a prospective, multicentered, comparative study PEDI 2007; 119(5):922-929.

Patrick PD, Mabry JL, Gurka MJ, Buck ML, Boatwright E, Blackman JA. MRI patterns in prolonged low response states following traumatic brain injury in children and adolescents BRAIN INJ 2007; 21(1):63-68.

Blackman JA, Gurka, M.J., Bao, Y., Dragulev, B.P., Chen, W.M., Romness, M.J. Apolipoprotein E and functional motor severity in cerebral palsy. J Pediatr Rehab Med. In press.

Current Funding

1T15HD050255-01A1 (Blackman) 04/2006 – 05/2011

NIH/NCMRR

NIH Grant Prep. Workshops for Rehabilitation Research

The purpose of this project is to provide training and mentoring in grant writing, clinical trial design, biostatistics, informatics, collaboration, grantsmanship, budgeting, and career development for junior and mid-level faculty in all medical rehabilitation disciplines.



Deitz, Jean C.

Professor, Division of Occupational Therapy, Department of Rehabilitation Medicine
Co-director, PhD Program in Rehabilitation Science, Department of Rehabilitation Medicine
University of Washington

Research Interests

Occupational therapy especially as related to the use of assistive technology and the development and evaluation of tests and measurements

Recent Publications

Franklin Lauren; Deitz Jean; Jirikowic Tracy; Astley Susan (2008). Children with fetal alcohol spectrum disorders: problem behaviors and sensory processing. The American journal of occupational therapy. : official publication of the American Occupational Therapy Association 2008;62(3):265-73.

Jankovich M, Mullen J, Rinear E, Tanta K, Deitz J. Revised Knox Preschool Play Scale: Interrater agreement and construct validity. Am J Occu Ther 2008; 62(2):221-227.

Yorkston, K. M., Klasner, E. R., Baylor, C. R., Amtmann, D., Deitz, J., Dudgeon, B. J., Eadie, T, & Miller, R.M. (In press). Satisfaction with communicative participation as defined by adults with multiple sclerosis. J Com Dis 2007; 40(6):433-451.



Di Fabio, Richard P.

Professor, Program in Physical Therapy
University of Minnesota

Research Interests:

Neuromotor control, Outcomes Research, Measurement & Research Design, Balance & Equilibrium, Posturography, Meta-analysis

Recent Publications

Di Fabio RP, Zampieri C, Tuite P. Gaze-shift strategies during functional activity in progressive supranuclear palsy. *Exp Brain Res.* 2007 Apr;178(3):351-62. Epub 2006 Nov 8.

Di Fabio RP, Zampieri C, Tuite P. Gaze control and foot kinematics during stair climbing: characteristics leading to fall risk in progressive supranuclear palsy. *Phys Ther.* 2008 Feb;88(2):240-50. Epub 2007 Dec 11.

Zampieri C, Di Fabio RP. Balance and eye movement training to improve gait in people with progressive supranuclear palsy: quasi-randomized clinical trial. *Phys Ther.* 2008 Dec;88(12):1460-73. Epub 2008 Oct 23.

Greany JF, Di Fabio RP. Saccade to stepping delays in elders at high risk for falling. *Aging Clin Exp Res.* 2008 Oct;20(5):428-33.

Zampieri C, Di Fabio RP. Improvement of gaze control after balance and eye movement training in patients with progressive supranuclear palsy: a quasi-randomized controlled trial. *Arch Phys Med Rehabil.* 2009 Feb;90(2):263-70.



Edgerton, V. Reggie

Professor, Departments of Physiological Science & Neurobiology
University of California, Los Angeles

Research Interests

Nervous system control of protein expression in skeletal muscle fibers; Neural networks in the lumbar spinal cord of mammals, including humans, control of stepping

Recent Publications

- Gerasimenko, YP, Ichiyama, RM, Lavrov, IA, Courtine, G, Cai, L, Zhong, H, Roy, RR, Edgerton, VR. Epidural spinal cord stimulation plus quipazine administration enable stepping in complete spinal adult rats. *J Neurophys* 2007; 98(5):2525-2536.
- Gomez-Pinilla, F, Ying, Z, Ferguson, AR, Crown, ED, Baunbaur, KM, Edgerton, VR, Grau, JW. BDNF and learning: Evidence that instrumental training promotes learning within the spinal cord by up-regulating BDNF expression. *Neurosci* 2007; 148(4):893-906.
- Edgerton VR, Roy RR. Robotic training and spinal cord plasticity. *Brain Res Bull*. 2009 Jan 15;78(1):4-12. Epub 2008 Nov 14. Review.
- Shin D, Finni T, Ahn S, Hodgson JA, Lee HD, Edgerton VR, Sinha S. In vivo estimation and repeatability of force-length relationship and stiffness of the human achilles tendon using phase contrast MRI. *J Magn Reson Imaging*. 2008 Oct;28(4):1039-45.
- Shin D, Finni T, Ahn S, Hodgson JA, Lee HD, Edgerton VR, Sinha S. Effect of chronic unloading and rehabilitation on human Achilles tendon properties: a velocity-encoded phase-contrast MRI study. *J Appl Physiol*. 2008 Oct;105(4):1179-86
- Ying Z, Roy RR, Zhong H, Zdunowski S, Edgerton VR, Gomez-Pinilla F. BDNF-exercise interactions in the recovery of symmetrical stepping after a cervical hemisection in rats. *Neuroscience*. 2008 Sep 9;155(4):1070-8
- Rosenzweig ES, Brock JH, Culbertson MD, Lu P, Moseanko R, Edgerton VR, Havton LA, Tuszynski MH. Extensive spinal decussation and bilateral termination of cervical corticospinal projections in rhesus monkeys. *J Comp Neurol*. 2009 Mar 10;513(2):151-63.
- Otoshi CK, Walwyn WM, Tillakaratne NJ, Zhong H, Roy RR, Edgerton VR. Distribution and localization of 5-HT(1A) receptors in the rat lumbar spinal cord after transection and deafferentation. *J Neurotrauma*. 2009 Apr;26(4):575-84.
- Khristy W, Ali NJ, Bravo AB, de Leon R, Roy RR, Zhong H, London NJ, Edgerton VR, Tillakaratne NJ. Changes in GABA(A) receptor subunit gamma 2 in extensor and flexor motoneurons and astrocytes after spinal cord transection and motor training. *Brain Res*. 2009 Apr 7. [Epub ahead of print]
- Gerasimenko Y, Musienko P, Bogacheva I, Moshonkina T, Savochin A, Lavrov I, Roy RR, Edgerton VR. Propriospinal bypass of the serotonergic system that can facilitate stepping. *J Neurosci*. 2009 Apr 29;29(17):5681-9.

Current Funding

1 R01 NS 054159

Edgerton (PI)

04/01/06-03/31/10

NIH

Combined OEG Transplantation and Step Training Promote Regeneration in Adult SCI

The project will determine the potential of transplantation of growth-promoting olfactory ensheathing glia (OEG) combined with 6 months of treadmill step training to promote axon regeneration following complete spinal cord transection in adult rats. Role: Principal Investigator

NIH

Recording and Stimulation of Stepping in Spinal Cord L1/L2

The purpose of this project is to develop and determine specific hardware and variables to stimulate the lumbar spinal cord to induce locomotion. Role: Co-Investigator



English, Arthur W.

Professor, Department of Cell Biology
Emory University

Research Interests

Interactions between the nervous system and the musculoskeletal system

Recent Publications

Widmer CG; English AW; Morris-Wiman J. Developmental and functional considerations of masseter muscle partitioning. Archives of oral biology 2007;52(4):305-8.

English AW; Schwartz G; Meador W; Sabatier-Manning J; Mulligan A. Electrical stimulation promotes peripheral axon regeneration by enhanced neuronal neurotrophin signaling. Developmental neurobiology 2007;67(2):158-72.

English AW; Chen Y; Carp JS; Wolpaw JR; Chen XY. Recovery of electromyographic activity after transection and surgical repair of the rat sciatic nerve. Journal of neurophysiology 2007;97(2):1127-34.

Sabatier MJ, Redmon N, Schwartz G, English AW. Treadmill training promotes axon regeneration in injured peripheral nerves. Exp Neurol. 2008 Jun;211(2):489-93. Epub 2008 Mar 5.



Enwemeka, Chukuka S.

Professor & Dean, School of Health Professions, Behavioral and Life Sciences
New York Institute of Technology

Research Interests

Photoengineering of tissue repair process with visible and near infra-red light and lasers

Recent Publications

- Fulop AM, Dhimmer S, Deluca JR, Johanson DD, Lenz RV, Patel KB, Douris PC, Enwemeka CS: A meta-analysis of the efficacy of phototherapy on tissue repair. *Photomedicine and Laser Surgery*, Submitted for publication, March, 2009.
- Leite NM, Frade MAC, Minatel DG, Masson DS, de Andrade TAM, Enwemeka CS: phototherapy promotes healing of cutaneous wounds in undernourished rats. *Wound Repair and Regeneration*, Submitted for publication, March 2009.
- Enwemeka CS: Intricacies of dose in laser phototherapy for tissue repair and pain relief. *Phototherapy and Laser Surgery*, Submitted for Publication, January, 2009.
- Minatel DG, Frade MAC, Franca S, Enwemeka CS: Phototherapy Promotes Healing of Chronic Diabetic Leg Ulcers That Failed To Respond To Other Therapies. *Lasers in Surgery and Medicine*, Submitted for Publication, December, 2008.
- Enwemeka CS, Williams D, Enwemeka SK, Hollosi S, Yens D: 470 nm 470nm Blue Light Kills Methicillin Resistant *Staphylococcus aureus* (MRSA) In Vitro. *Photomedicine and Laser Surgery*, Published Ahead of Print, DOI 10.1089/pho 2008.2413
- Caetano KS, Frade MAC, Minatel DG, Santana LA, Enwemeka CS Phototherapy improves healing of chronic venous ulcers. *Photomedicine and Laser Surgery* 27:111-118, 2009.
- Enwemeka CS, Williams D, Hollosi S, Yens D, Enwemeka SK: Visible Visible 405 nm SLD Photo-destroys Methicillin Resistant *Staphylococcus aureus* (MRSA) In Vitro. *Lasers in Surgery and Medicine* 40:734-737, December 2008.
- Enwemeka CS, Williams D, Hollosi S, Yens D: Blue Light Photo-destroys Methicillin Resistant *Staphylococcus aureus* (MRSA) In Vitro. In Waynant R, Tata D. (Eds.) *Lecture Notes in Electrical Engineering* 12:33-37, 2008; Springer Publishers, New York
- Minatel DG, Frade MAC, Franca SC, Almeida GL, Enwemeka CS: Combined 660nm and 880 nm light improves healing of recalcitrant diabetic ulcers. In Waynant R, Tata D. (Eds.) *Lecture Notes in Electrical Engineering* 12:23-32, 2008; Springer Publishers, New York. [Corresponding Senior Author].
- Enwemeka CS: Standard parameters in laser phototherapy (Editorial): *Photomed and Laser Surgery* 26: 411, 2008.



Granger, Carl V.

Executive Director, Uniform Data System for Medical Rehabilitation
Director, Center for Functional Assessment Research (CFAR)
Professor, Department of Rehabilitation Medicine, School of Medicine and
Biomedical Sciences
University at Buffalo, State University of New York (SUNY)

Research Interests

Rehabilitation outcomes

Recent Publications

- Nguyen-Oghalai Tracy U; Wu Helen; McNearney Terry A; Granger Carl V; Ottenbacher Kenneth J. Functional outcome after stroke in patients with rheumatoid arthritis and systemic lupus erythematosus. *Arthritis and rheumatism* 2008;59(7):984-8.
- Ottenbacher Kenneth J; Campbell Joanna; Kuo Yong-Fang; Deutsch Anne; Ostir Glenn V; Granger Carl V. Racial and ethnic differences in postacute rehabilitation outcomes after stroke in the United States. *Stroke; a journal of cerebral circulation* 2008;39(5):1514-9.
- Chang Pei-Fen J; Ostir Glenn V; Kuo Yong-Fang; Granger Carl V; Ottenbacher Kenneth J. Ethnic differences in discharge destination among older patients with traumatic brain injury. *Archives of physical medicine and rehabilitation* 2008;89(2):231-6.
- Nguyen-Oghalai, T.U., Ottenbacher, K.J., Caban, M., Granger, C.V., Grecula, M., Goodwin, J.S. (2007). The impact of rheumatoid arthritis on rehabilitation outcomes following lower extremity arthroplasty. *Journal of Clinical Rheumatology*, 13(5), 247-250.
- Granger, G.V., Deutsch, A., Russell, C., Black, T., Ottenbacher, K.J. (2007). Modifications of the FIM™ Instrument under the Inpatient Rehabilitation Facility Prospective Payment System. *American Journal of Physical Medicine and Rehabilitation*, 86,883-892.
- Drake, A.S., Teter, B.E., Weinstock-Guttman, B., Zivadinov, R., Granger, C.V., Niewczyk, P., Mumschauer, F.E. (2007). Clinically significant changes in the timed 25-foot walk and 9-hole peg test reflect changes perceived by patient self-report. *Multiple Sclerosis*, 13(2), S219-S220.
- Chang, P-F., Ostir, G.V., Kuo, Y-F., Granger, C.V., Ottenbacher, K.J. (2008). Ethnic differences in discharge destination among older patients with traumatic brain injury. *Archives of Physical Medicine and Rehabilitation*, 89, 231-236.
- Ottenbacher, K.J., Campbell, J., Kuo, Y.F., Ostir, G.V., Deutsch, A., Granger, C.V. (2008). Racial and ethnic differences in post-acute rehabilitation outcomes following stroke in the U.S. *Stroke*, 39, 1514-1519.
- Granger, C.V. (2008). Rehabilitation medicine and medicare postacute care policies. *Archives of Physical Medicine and Rehabilitation*, 89(4), 793-794.
- Bergés Ivonne-Marie; Kuo Yong-Fang; Ostir Glenn V; Granger Carl V; Graham James E; Ottenbacher Kenneth J. Gender and ethnic differences in rehabilitation outcomes after hip-replacement surgery. *American journal of physical medicine & rehabilitation / Association of Academic Physiatrists* 2008;87(7):567-72.
- Deutsch Anne; Granger Carl V; Russell Carol; Heinemann Allen W; Ottenbacher Kenneth J. Apparent changes in inpatient rehabilitation facility outcomes due to a change in the definition of program interruption. *Archives of physical medicine and rehabilitation* 2008;89(12):2274-7.
- Graham James E; Chang Pei-Fen J; Bergés Ivonne-Marrie; Granger Carl V; Ottenbacher Kenneth J. Race/ethnicity and outcomes following inpatient rehabilitation for hip fracture. *The journals of gerontology. Series A, Biological sciences and medical sciences* 2008;63(8):860-6.



Hidler, Joseph M.

Director, Center for Rehabilitation Research, National Rehab Hospital

Research Interests

Neuromuscular pathologies associated with stroke and spinal cord injury; development of robotic and instrumented devices to facilitate motor recovery; simulation of muscle contractile dynamics and reflex responses; and system identification of neuromuscular systems

Recent Publications

S. Lee and J. Hidler, "Biomechanics of overground vs. treadmill walking in healthy individuals." *Journal of Applied Physiology*, 104: 747-755, 2008.

S. Ryerson, N. Byl, D. Brown, R. Wong, and J. Hidler, "Altered trunk position sense and its relation to balance functions in people post-stroke." *Journal of Neurologic Physical Therapy*, 32: 14-20, 2008.

J. Hidler, M. Carroll, and E. Federovich, "Strength and coordination in the paretic leg of individuals following acute stroke." *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, 15:4, 526-534, December 2007.

I. Black, D. Nichols, M. Pelliccio, and J. Hidler, "Quantification of reflex activity in stroke survivors during an imposed multi-joint leg extension movement." *Experimental Brain Research*, 183(2):271-281, 2007.

C. Schabowsky, J. Hidler, and P. Lum, "Greater reliance on impedance control in the nondominant arm compared with the dominant arm when adapting to a novel dynamic environment." *Experimental Brain Research*, 182(4): 567-577, 2007.

A. Cernich, D. Brennan, L. Barker, and J. Bleiberg "Sources of error in computerized neuropsychological assessment." *Archives of Neuropsychology*, 22S, S39-S48, 2007.

Current Funding

"National Capital Area Rehabilitation Research Network (NCARRN)"

Co-Principal Investigator

Agency: NIH-NCMRR

Type: R24

Period: 09/16/05 – 06/30/10

The goal of this rehabilitation network grant is to establish a nationally recognized interdisciplinary Research program in spinal cord injury, based on both animal and human studies



Hoffman, Eric

Children's National Medical Center
Center Director, Center for Genetic Medicine Research
James Clark Chair in Molecular Genetics, Children's Research Institute (CRI), Center for
Genetic Medicine Research (CGMR)

George Washington University
School of Medicine and Health Sciences
Professor, Pediatrics

Research Interests

Molecular pathophysiology of neurological disease, with emphasis on motor neuron and muscle disorders, and normal nerve/muscle interaction. Additional projects are on the molecular basis of recurrent pregnancy loss, and SNP association studies in exercise physiology.

Recent Publications

Yokota T, Lu QL, Partridge T, Kobayashi M, Nakamura A, Takeda S, Hoffman E Efficacy of systemic morpholino exon-skipping in duchenne dystrophy dogs. *Ann Neurol.* 2009 Mar 13. [Epub ahead of print]

Kostek MA, Angelopoulos TJ, Clarkson PM, Gordon PM, Moyna NM, Visich PS, Zoeller RF, Price TB, Seip RL, Thompson PD, Devaney JM, Gordish-Dressman H, Hoffman EP, Pescatello LS.

Myostatin and Follistatin Polymorphisms Interact with Muscle Phenotypes and Ethnicity. *Med Sci Sports Exerc.* 2009 Apr 3. [Epub ahead of print]

Kim WJ, Silverman EK, Hoffman E, Criner GJ, Mosenifar Z, Sciruba FC, Make BJ, Carey V, San Jose Estepar R, Diaz A, Reilly JJ, Martinez FJ, Washko GR. CT Metrics of Airway Disease and Emphysema in Severe COPD. *Chest.* 2009 May 1. [Epub ahead of print]



Jette, Alan M.

Director, Health & Disability Research Institute
Professor, Department of Health Services, School of Public Health
Boston University

Research Interests

Late-life exercise, evaluation of treatment outcomes, and the measurement, epidemiology, and prevention of late-life disability

Recent Publications

Melzer I, Kurz I, Sarid O, Jette AM: Relationship between self-reported function and disability and balance performance measures in the elderly. *Journal of Rehabilitation Research and Development*, 44(5): 686-691, 2007.

Jette AM, Tao W, Norweg A, Haley S: Interpreting rehabilitation outcome measurements. *Journal of Rehabilitation Medicine*, 39(8): 585-590, 2007.

Jette AM, Tao W, Haley SM: Blending activity and participation sub-domains of the ICF. *Disability and Rehabilitation*, 29(22): 1742-1750, 2007.

Kiely DK, LaRose S, Jette AM, Bean JF: The association between important impairments and the late life function and disability instrument. *Journal of the American Geriatrics Society*, 55(4): S60, 2007.

Jette AM, Haley SM, Tao W, Ni PS, Moed R, Meyers D, Zurek M: Prospective evaluation of the AM-PAC-CAT in outpatient rehabilitation settings. *Physical Therapy*, 87(4): 385-398, 2007.

Haley SM, Gandek B, Siebens H, Black-Schaffer RM, Sinclair SJ, Tao W, Coster WJ, Ni P, Jette AM: Computerized adaptive testing for follow-up after discharge from inpatient rehabilitation: II. Participation outcomes. *Archives of Physical Medicine and Rehabilitation*, 89(2): 275-283, 2008.

Field MJ, Jette AM: Dealing with disability. *Issues in Science and Technology*, 24(2): 85-90, 2008.

Current Funding

2006-2011	Research Director, New England Regional Spinal Cord Models System Center, Dept. of Rehabilitation Medicine, Boston Medical Center, <i>NIDRR, US Department of Education</i>
2006-2011	Principal Investigator, Development of a CAT Functional Outcomes Instrument for Spinal Cord Injury Patients, <i>NIDRR, US Department of Education</i>
2006-2011	Co-investigator, Telephone-linked computer system clinical trial for patients with spinal cord injury and multiple sclerosis. CDC.
2007-2012	Principal Investigator. Post Hip Fracture Rehabilitation Exercise and Cognitive Behavioral Clinical Trial. NINR/NIH.
2007-2012	Co-Principal Investigator. Development of a CAT-based dyspnea outcome instrument. NHLBI/NIH.
2007-2009	Co-investigator. Pilot study to develop an outcomes monitoring system across post acute care settings. Kaiser Permanente of Northern California.
2008-2013	Principal Investigator, subcontract from RTI, International on RTOP No. CMS-07-033. Developing Outpatient Therapy Payment Alternatives. <i>Centers for Medicare and Medicaid</i> .
2008-2010	Principal Investigator, Development of a CAT version of the Late Life Function and Disability Instrument, Phase 2 STTR, NIA/NIH.
2008-2012	Member, Leadership Core, Boston Pepper Center for the Function Promoting Therapies. NIA/NIH
2008-2010	Principal Investigator, Development project to develop a CAT-based version of the Late-Life Function & Disability Instrument, Boston Pepper Center, NIA/NIH



Kielhofner, Gary W.

Wade/Meyer Chair & Professor, Department of Occupational Therapy, College of Applied Health Sciences
University of Illinois at Chicago

Research Interests

Theory-based practice, assessment, psychometrics, outcome studies, Model of Human Occupation (MOHO).

Recent Publications

Forsyth, K, Parkinson, S. & Kielhofner, G. (In press). The measurement properties of the Model of Human Occupation Screening Tool (MOHOST). British Journal of Occupational Therapy.

Romero, D. M., Kiehofner, G. Portella, P.P., Barrientos, C.R., Andrade, J.M., & del Campo B. M. (In press). Occupational performance and participation in children with ADHD & ADD. Scandinavian Journal of Occupational Therapy.

Kielhofner, G., Braveman, B., Fogg, L., & Levin, M. (2008) A control study of services to enhance productive participation among persons with HIV/AIDS. American Journal of Occupational Therapy, 62, 36-45.

Lee, S. W., Taylor, R., Kielhofner, G., & Fisher, G. (2008) Theory use in practice: A national survey of therapists who use the Model of Human Occupation. American Journal of Occupational Therapy, 62, 106-116.

Levin, M., Kielhofner, G., Braveman, B., & Fogg (2007) L. Narrative slope as a predictor of work and other occupational participation. Scandinavian Journal of Occupational Therapy 14, 258 - 264

Bowyer, P., Kramer, J., Kielhofner, G., Maziero-Barbosa, V., & Girolami, G. (2007). Measurement properties of the Short Child Occupational Profile. Physical Therapy and Occupational Therapy in Pediatrics, 27 (4), 67-85.

Kielhofner, G. (2007) Respecting both the “occupation and the “therapy” in our field. American Journal of Occupational Therapy, 61, 479-482.

Kielhofner, G. (2007). A perspective on the history, current status and future of occupational therapy. *Revista Terapia Ocupacional Galicia*.

Current Funding

Advanced Training in Translational and Transformational Research to Improve Vocational Outcomes for Persons with Disabilities (\$750,000)

National Institute of Disability and Rehabilitation Research

Principal Investigator

2006-2011



Kreutzer, Jeffrey S.

Director, NIDRR Traumatic Brain Injury Model System, Virginia
Professor & Vice Chair of the Research Division, Department of Physical Medicine and
Rehabilitation
Virginia Commonwealth University

Research Interests

Aspects of brain injury including families, return to work, psychological reactions to disability, neurobehavioral outcome, and costs and benefits of rehabilitation services

Recent Publications

- Arango-Lasprilla Juan Carlos; Ketchum Jessica M; Dezfulian Taryn; Kreutzer Jeffrey S; O'neil-Pirozzi Therese M; Hammond Flora; Jha Amitabh. Predictors of marital stability 2 years following traumatic brain injury. Brain Injury : [BI] 2008;22(7-8):565-74.
- Arango-Lasprilla Juan Carlos; Ketchum Jessica M; Williams Kelli; Kreutzer Jeffrey S; Marquez de la Plata Carlos D; O'Neil-Pirozzi Therese M; Wehman Paul. Racial differences in employment outcomes after traumatic brain injury. Archives of Physical Medicine and Rehabilitation 2008;89(5):988-95.
- Hart, T., O'Neil-Pirozzi, T., Williams, K., Hammond, F., & Kreutzer, J. (2007). Racial differences in caregiving patterns, caregiver emotional function, and sources of emotional supporting following brain injury. Journal of Head Trauma Rehabilitation, 22(2), 122-131.
- Kreutzer, J., Marwitz, J., Hsu, N., Williams, J., & Riddick, A. (2007). Marital Stability after Brain Injury: An Investigation and Analysis. NeuroRehabilitation, 22(1), 53-59.
- Taylor, L.A., Livingston, L.A., & Kreutzer, J.S. (2007). Neuropsychological assessment and treatment of TBI. In N.D. Zasler, D.I. Katz, & R.D. Zafonte (Eds.), Brain injury medicine: Principles and practice (pp. 791-813). New York, Demos Medical Publishing.
- Livingston, L., Kreutzer, J., Williams, K., Everley, R. (2007). Identification of judgement and safety concerns for persons with disabling neurological disorders. Archives of Clinical Neuropsychology, 22(7), 906.
- Kreutzer, J., Guerra, B. (2007). The regulatory beta-subunit of protein kinase CK2 accelerates the degradation of CDC25A phosphatase through the checkpoint kinase Chk1. International Journal of Oncology, 31(5), 1251-1259.
- Emery, S.P., Kreutzer, J., Sherman, F.R., Fujimoto, K.L., Jaramaz, B., Nikou, C., Tobita, K., Keller, B.B. (2007). Computer-assisted navigation applied to fetal cardiac intervention. International Journal of Medical Robotics and Computer Assisted Surgery, 3(3), 187-198.
- Kreutzer, J., Akutsu, H., Fahlbusch, R., Buchfelder, M., Nimsky, C. (2008). Teleradiology in neurosurgery: Experience in 1024 cases. Journal of Telemedicine and Telecare, 14(2), 67-70.

Current Funding

- 2004-2009 Principal Investigator, Advanced rehabilitation research training program, National Institute on Disability and Rehabilitation Research (10/1/04 - 9/30/09)
- 1988-2012 Principal Investigator, Virginia Commonwealth Traumatic Brain Injury System, National Institute on Disability and Rehabilitation Research (10/1/07 – 9/30/12); (10/1/02 - 9/30/07); (10/1/98 - 9/30/02); (10/1/92 – 9/30/97); (10/1/87 – 9/30/92)



Nelson, David L.

Professor, Department of Occupational Therapy
University of Toledo (formerly the Medical University of Ohio)

Research Interests

Problems that older persons often experience when living at home while at risk for disabilities

Recent Publications

Moberg-Mogren E, Nelson DL. Expanding the CONSORT criteria to analyze occupational therapy randomized controlled trials. *Amer J Occup Ther.* 2006;60:226-235.

Nelson DL. Group comparison designs: Quantitative research design. In G Kielhofner (Ed.), *Research in occupational therapy: The nature of research in a practice setting* (pp. 65-90). Philadelphia, PA: FA Davis. I

Nelson, D. L. (in press). Critiquing the logic of the *Domain* section of *Occupational Therapy Practice Framework: Domain and Process*. *Amer J Occup Ther.* In press.

Little, LM, Simmons, BL, Nelson, DL. Health among leaders: Positive and negative affect, engagement and burnout, forgiveness and revenge. *Journal of Management Studies* 2007;44(2):243-260.

Butts DS, Nelson DL. Agreement between Occupational Therapy Practice Framework classifications and occupational therapists' classifications. *Am J Occup Ther.* 2007 Sep-Oct;61(5):512-8.



Rodgers, Mary M.

Chair, Department Physical Therapy & Rehabilitation Science (PTRS)
University of Maryland, School of Medicine

Research Interests

Rehabilitation biomechanics, wheelchair propulsion biomechanics, and gait analysis

Recent Publications

Patterson SL, Forrester LW, Rodgers MM, Ryan AS, Ivey FM, Sorkin JD, Macko RF: Determinants of walking function after stroke: Differences by deficit severity. *Arch Phys Med Rehabil.* 1:115-119, 2007
Finley MA, Rodgers, MM. Effect of two-speed geared manual wheelchair propulsion on shoulder pain and function. *Arch Phys Med Rehabil* 88(12):1622-1627, 2007.
Patterson SL, Rodgers MM, Macko RF, Forrester LW: Effect of treadmill exercise training on spatial and temporal gait parameters in individuals with chronic stroke. *J Rehabil Res Dev* 45(2)221-228, 2008.
Khanna I, Roy A, Rodgers MM, Krebs HI, Forrester LW: Effects of Unilateral Limb Loading on Gait Characteristics in Subjects with Chronic Stroke. Submitted to *J Rehabil Res Dev*.

Current Funding

Rodgers (PI) T32 HD041899-01A1 2003 – 2008 (renewal pending)
National Center for Neuromuscular Rehabilitation Research (NIH/NCMRR)
Advance Rehabilitation Research Training Program
Role: PI

The purpose of this grant is to attract and train potential rehabilitation scientists in predoctoral and post doctoral positions. This project offers pre-doctoral students and post-doctoral fellows academic and research preparation in fields pertinent to physical rehabilitation science. A unique three-tiered mentorship structure provides training for junior and mid-level faculty in mentorship.

Goldberg (PI) P50 AG28747-01 9/06-8/11

Claude D. Pepper Older Americans Independence Center (NIA)

Role: Director, Pilot/Exploratory Studies Core (PESC) and co-Director, Research Career Development Core
"Effect of Aerobic Exercise on Gait and Functional Performance in Hemiparetic Stroke"

This center provides mechanistic and outcome-based research in exercise rehabilitation and research training in gerontology and geriatrics that will improve lifestyle and functionality of older disabled individuals. Career training and development is the focus for the PESC and RCDC

Macko (PI) VA RR&D Grant # B3688R 9/05-8/10

Role: Co-PI for the Human Performance and Neuroplasticity Core.

"Center of Excellence: Task-Oriented Exercise and Robotics in Neurological Disease"

This RRDC investigates motor learning based models of robotics-assisted rehabilitation.

Magaziner (PI) T32-AG00262 5/03-4/13

National Institute of Aging (NIA)

Role: Clinical Research Faculty/Mentor

"Research Training in the Epidemiology of Aging"

This project offers pre-doctoral students academic and research preparation in fields pertinent to aging. Mentorship and training of pre-doctoral students is a focus for this training grant.



Rymer, William Z.

Director of Research, Rehabilitation Institute of Chicago
Professor, Department of Physical Medicine & Rehabilitation
Feinberg School of Medicine, Northwestern University

Research Interests

Regulation of movement in normal and neurologically disordered human subjects;
physiological effects of spinal cord injury

Recent Publications

- Gerachshenko T, Rymer WZ, Stinear JW. Abnormal corticomotor excitability assessed in biceps brachii preceding pronator contraction post-stroke. *Clin Neurophysiol*; 119(3):683-92; 2008 Mar
- Mirbagheri MM, Alibiglou L, Thajchayapong M, Rymer WZ. Muscle and reflex changes with joint angle in hemiparetic stroke. *J Neuroeng Rehabil*, 5(1):6; 2008 Feb 27 [Epub ahead of print]
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- Mirbagheri MM, Tsao CC, Rymer WZ. Natural history of neuromuscular properties after stroke: A longitudinal study. *J Neurol Neurosurg Psychiatry*. [Epub ahead of print]; 2008 Dec 5

Current Funding

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| T32 HD07418 (Rymer) | 5/1/07 – 4/30/12 | NIH NICHD |
| Pathophysiology and Rehabilitation of Neural Dysfunction | | |
| H133P040007 (Rymer) | 5/1/04 – 4/30/09 | U.S. Department of Education |
| Rehabilitation Science of Engineers and Basic Scientists: An Advanced Training Program | | |
| H133E070013 (Rymer) | 10/1/07 – 9/30/12 | U.S. Dept. of Education/NIDRR |
| Machines Assisting Recovery From Stroke (MARS) | | |
| R24 HD959721-01 (Rymer) | 9/23/05 – 5/31/10 | NIH NICHD |
| Engineering for Neurologic Rehabilitation | | |
| H133G030204 (Beer) | 10/1/06 – 9/30/09 | Dept of Education/NIDRR |
| Three-Dimensional Assessment and Rehabilitation of Arm Function Following Stroke | | |
| NSF EEC-0649176 (Rymer) | 3/15/09 – 2/29/10 | |
| SINE: Summer Internships in Neural Engineering | | |
| NIH N01-AG-6-0007 (Rymer) | 10/1/06 – 9/30/11 | |
| NIH Toolbox for Assessment of Neurological and Behavioral Function | | |
| NIH 1R01NS062200-01A1 (Powers) | 3/2/09 – 11/30/13 | |
| Computer Models of Normal and Abnormal Discharge Patterns in Human Motoneurons | | |



Schneider, Mary L.

Affiliate Scientist, Wisconsin Regional Primate Research Center
Professor, Departments of Kinesiology and Psychology
University of Wisconsin-Madison

Research Interests

Behavioral and neurobiological effects from fetal alcohol exposure alone or in combination with prenatal stress

Recent Publications

- Schneider, M.L., Moore, C.F., Gajewski, L. L., Larson, J.A., Roberts, A. D., Converse, A.K., DeJesus, O.T. (2008). Sensory processing disorder in a primate model: Evidence from a longitudinal study of prenatal alcohol and prenatal stress effects. *Child Development*, 79(1), 100-113.
- Kraemer, G.W., Moore, C.F., Newman, T.K., Barr, C.S., Schneider, M.L. (2008). Moderate level fetal alcohol exposure and serotonin transporter gene promoter polymorphism affect neonatal temperament and LHPA axis regulation in monkeys. *Biological Psychiatry*, 63, 317-324.
- Schneider, M.L., Moore, C.F., DeJesus, O.T., Converse, A.K. (2008). Prenatal stress influences on neurobehavior, stress reactivity, and dopaminergic function in rhesus macaques. In T. Burbacher, G.P. Sacht, & K.S. Grant (Eds.) *Primate Models of Children's Health and Developmental Disabilities* (pp. 213-258). New York: Elsevier, Inc.
- Schneider, M.L., Moore, C.F., Gajewski, L., Laughlin, N., Larson, J.A., Gay, C., Roberts, A.D., Converse, A.K., DeJesus, O.T. (2007). Sensory processing disorder in a nonhuman primate model: Evidence for occupational therapy practice. *American Journal of Occupational Therapy*, 61(2), 247-253.
- Schneider, M.L., Shaw, J.M., Kos, A.B., Gerrits, T., Silva, T.J., McMichael, R.D. (2007). Spin dynamics and damping in nanomagnets measured directly by frequency-resolved magneto-optic Kerr effect. *Journal of applied Physics*, 102(10).
- Schneider, M.L., Moore, C.F., Gajewski, L.L., Larson, J.A., Roberts, A.D., Converse, A.K., DeJesus, O.T. (2008). Sensory processing disorder in a primate model: Evidence from a longitudinal study of prenatal alcohol and prenatal stress effects. *Child Development*, 79(1), 100-113.
- Rippard, W.H., Pufall, M.R., Schneider, M.L., Garello, K., Russek, S.E. (2008). Spin transfer precessional dynamics in Co60Fe20B20 nanocontacts. *Journal of Applied Physics*, 103(5).
- Moore CF, Gajewski LL, Laughlin NK, Luck ML, Larson JA, Schneider ML. Developmental lead exposure induces tactile defensiveness in rhesus monkeys (*Macaca mulatta*). 2008 Oct;116(10):1322-6. Epub 2008 May 30

Current Funding

R01 AA12277-07 Schneider (PI) 06/01/06-05/31/11
NIH/NIAAA
Fetal Alcohol Effects in Monkeys: Dopamine and Behavior

The major goal is to determine whether moderate fetal alcohol exposure, psychological stress, or both constitute a danger to the developing fetus. Monkeys are assessed with neuroimaging techniques, behavioral tests, and pharmacological challenge tests to determine whether a hypodopaminergic state underlies the ADHD-like behavioral symptoms associated with prenatal exposure to alcohol and/or stress.
Role: Principal Investigator

R01 AA10079-11 Schneider (PI) 08/01/06-07/31/11
NIH/NIAAA
Moderate Level Prenatal Alcohol Exposure in Primates

The major goal is to determine whether there is a window of vulnerability for the effects of moderate fetal alcohol exposure (early vs. middle-to-late gestation). Monkeys are characterized using PET neuroimaging and behavioral measures. Monkeys are also assessed with an operant conditioning drinking paradigm to assess potential risk factors for excessive alcohol consumption during adulthood.
Role: Principal Investigator



Tickle-Degnen, Linda

Associate Professor, Occupational Therapy
Tufts University

Research Interests

Social functioning and wellness in Parkinson's disease and other chronic conditions, nonverbal and verbal communication, cross-cultural health care interactions, interpersonal rapport, engagement in meaningful daily activities, and quality of life

Recent Publications

- DeGroat, E., Lyons, K.D., & Tickle-Degnen, L. (2006). Verbal content during favorite activity interview as a window into the identity of people with Parkinson's disease. *Occupational Therapy Journal of Research: Occupation, Participation, & Health*, 26(2), 56-68.
- Tickle-Degnen, L. (2006). Nonverbal behavior and its functions in the ecosystem of rapport. In M. L. Patterson & V. Manusov (Eds.), *Handbook of nonverbal communication*. Thousand Oaks, CA: Sage.
- Yinusa-Nyahkoon, L., Cohn, E.S., Tickle-Degnen, L., Cortes, D.E., Lieu, T.A., & Bokhour, B.G. (2007). Examining routines to understand the ecological context for managing childhood asthma: An ecocultural perspective. *Occupational Therapy Journal of Research: Occupation, Participation, & Health*, 27(Supplement 1), 97S-99S.
- Lowenstein, N., & Tickle-Degnen, L. (2008). An occupational therapy home program for patients with Parkinson's disease. In M. Trail, E. Protas, & E. Lai (Eds.), *Neurorehabilitation in Parkinson's disease*. Thorofare, NJ: Slack.
- White Daniel K; Wagenaar Robert C; Ellis Terry D; Tickle-Degnen Linda Changes in walking activity and endurance following rehabilitation for people with Parkinson disease. *Archives of physical medicine and rehabilitation* 2009;90(1):43-50.

Current Funding

Tufts University, Tickle-Degnen (PI) 9/1/08-8/31/09
New Directions in Research Award, Faculty Research Awards Committee
Social-behavioral Functioning & Quality of Life in Individuals with Disorders of Facial Expression
The major goal of this project is to provide funding for doctoral dissertation work in the area of facial disorders.