



Buford, Jr., William L.

Professor & Director, Division of Research
Department of Orthopaedic Surgery and Rehabilitation
University of Texas Medical Branch

Research Interests

Applied biomechanics of rehabilitation

Recent Publications

Bi, LX.; Mainous, E.G.; Zeng, Y.; Buford, W.L., Osteoformin accelerates fresh fracture healing in rats., J. of Oral and Maxillofacial Surgery., 65:2470-2474, 2007.

Lemoine, JJ, XIA, JJ, Andersen, CR, Gateno, J, Buford, WL, Liebschner, MA, "Geometry-Based Algorithm for the prediction of Non-Pathological Mandibular Movement," J. of Oral and Maxillofacial Surgery, 65(12):2411-7, Dec 2007.

Nakamura, T, Abreu, BC, Patterson, RM, Buford, WL, Jr, Ottenbacher, KJ, "Upper Limb Kinematics of the Presumed-to-be-Unaffected Side after Brain Injury," Am J. of Occ Ther, 62(1), 2008.

Bi, LX.; Mainous, E.; Yngve D.A.; Buford, W.L. Cellular isolation, culture and characterization of the marrow sac cells in human tubular bone. J. Musculoskeletal Neuronal Interact. (in press) 2008.

Current Funding

Musculoskeletal simulation, interactive surgical planning and computer aided prosthesis design (PI)
Smith and Nephew Richards, Incorporated
03/01/05 – 02/2810



Markides, Kyriakos S.

Professor, Division of Sociomedical Sciences
Department of Preventive Medicine and Community Health
University of Texas Medical Branch

Research Interests

Health of older Mexican Americans

Recent Publications

Reyes-Ortiz, C.A., Berges, I.M., Raji, M. A., Koenig, H.G., Kuo, Y-F., Markides, K.S. Church Attendance Mediates the Association Between Depressive Symptoms and Cognitive Functioning Among Older Mexican Americans. *Journal of Gerontology: Medical Sciences*, 63A(5), 480-486, 2008.

Al Snih, S., Kaushik V., Eschbach, K., Markides, K.S. Ethnic Differences in Physical Performance in Older Americans: Data from the Third National Health and Nutrition Examination Survey (1988-1994). *Aging: Clinical and Experimental Research*, 20(2), 139-144, 2008.

Royall, D.R., Palmer, R., Chiodo, L.K., Polk, M.J., Markides, K.S., Hazuda, H. Clockdrawing potentially mediates depression's effect on mortality: Replication in three cohorts. *International Journal of Geriatric Psychiatry*, 2008.

Reyes-Ortiz, C.A., Velez, C.F., Camacho, M.E., Ottenbacher, K.J., Markides. K.S. Health Insurance and Cervical Cancer Screening among Older Women in Latin American and Caribbean Cities. *International Journal of Epidemiology*. (2008).

Samper-Ternent, R., Al Snih, S., Raji, M.A., Markides, K.S., Ottenbacher, K.J. Relationship between Frailty and Cognitive Decline in Older Mexican Americans. *Journal of the American Geriatrics Society*, 56;1845-1852, 2008.

Escobar, V, Oakes, S.L., Wood, R., Becho, J, Espino, D.V., Markides, K.S. Prevalence and Characteristics Associated with Self-Reported Gall Bladder Disease in Mexican American Elders: Results from the Hispanic Established Populations for Epidemiologic Studies in the Elderly (H-EPESE) Study. *Aging: Clinical and Experimental Research*, (In Press).

Cesari, M., Pahor, M., Marzetti, E., Zamboni, V., Colloca, G., Tosato, M., Patel, K.V., Tovar, J.J., Markides, K. Self-assessed health status, walking speed and mortality in older Mexican Americans. *Gerontology*. (In Press).

Markides, K.S., Salinas, J., Sheffield, K. The Health of Older Immigrants. *Generations*. (In press).

Ottenbacher, K.J., Graham, J., Al Snih, S., Raji, M., Samper-Ternent, R., Ostir, G.V., Markides, K.S. Becoming Frail: Findings from the Hispanic Established Population for the Epidemiologic Study of the Elderly. *American Journal of Public Health* (in press).

Zimmerman, J.A., Mast, B.T., Miles, J., Markides, K.S. Vascular Risk and Depression in the Hispanic Established Population for the Epidemiologic Study of the Elderly. *International Journal of Geriatric Psychiatry* (in press).

Current Funding

R01 AG10939-06A1 (PI – Markides, Kyriakos) Longitudinal Study of Mexican American Elderly Health Role: PI	7/01/92-11/30/08	NIH/NIA
T32 AG00270 (PI – James Goodwin) NSRA Health of Older Minorities Role: Co-Director	5/01/04-4/30/09	NIH/NIA
P50CA12385 (PI -- James Goodwin) UTMB Center for Population Health and Health Disparities Role: Co-Investigator	6/01/03-5/31/08	NIH
R01 AG17638-04A1 (PI - Ottenbacher, Kenneth) Enabling-Disabling Process in Mexican American Older Adults Role: Co-Investigator	03/15/05-02/28/10	NIH/NIA



Mossberg, Kurt Alan

Associate Professor, Department of Physical Therapy (SAHS)
University of Texas Medical Branch

Research Interests

Exercise programs for those with acquired brain injury and individuals who use wheelchairs for the majority of community locomotion

Recent Publications

Mossberg K, Norcross J, Orlander E, Fisher S: Validity and responsiveness of the six-minute walk test in individuals with traumatic brain injury. *American Physical Therapy Association, 2006*. Available at:

<http://www.ptjournal.org/abstracts/pt2006/abstractsPt.cfm?pubNo=PO-RR-73-F>

Mossberg K, Norcross J, Orlander E: SF-36 vs. clinical measures of endurance capacity. *J Head Trauma Rehabil.* 21:416, 2006.

Ronsen O, Symons B, Børshiem E, Mossberg K, Wolfe R: Test-retest of time to exhaustion in traumatic brain injury patients. *American College of Sports Medicine, 2006*. Available at:

<http://www.abstractsonline.com/viewer>

Fitts RH, Romatowski JG, Peters JR, Gilkison C, Mossberg KA, Sheffield-Moore M, Urban RJ. Effect of rhGH replacement in persons with moderate to severe traumatic brain injury (TBI) on single muscle fiber function. *Endocrine Society, June 2007*. Available at: <http://www.abstracts2view.com/endo>

High WM, Mossberg KA, Briones-Galang M, Gilkison C, Masel BE, Urban RJ. Effect of rhGH Replacement in Persons with Moderate to Severe Traumatic Brain Injury (TBI) on Neuropsychological Test Performance, Aerobic Capacity, Body Composition and Community Integration Questionnaire (CIQ). *Endocrine Society, June 2007*. Available at: <http://www.abstracts2view.com/endo>

Mossberg K, Orlander E, Norcross J: Cardiorespiratory capacity after supported treadmill training in patients with traumatic brain injury. *Physical Therapy* 88(1):77-87, 2008.

Current Funding

#R01 HD046570-01, National Institutes of Health; Physical work capacity after traumatic brain injury, 2006-10. The primary goal of this project is to examine the effectiveness of body-weight supported treadmill training in persons recovering from traumatic brain injury (TBI). The project's aims are to examine changes in both physical and cognitive function. Mossberg has complete oversight on this project as Principal Investigator.

The Moody Endowment; Amino acid supplementation in recovery after brain injury. Elisabet Børshiem, PI; 2007-09. This is a pilot project with the goal of assessing the feasibility of long-term amino acid supplementation in persons recovering from traumatic brain injury (TBI). The project's aims are to examine changes in both physical and cognitive function. Mossberg has complete responsibility for all physical function evaluations as Co-Investigator.

Pending Funding

#R01 NS057283-01, National Institutes of Health; Mild traumatic brain injury and pituitary dysfunction. Randall Urban, PI; 2008-12. The goal of this proposal is to examine the effectiveness of growth hormone supplementation on physical and cognitive function in patients with TBI. These studies are specifically targeted at patients recovering from mild TBI. Mossberg, as Co-Investigator, has complete responsibility for all physical function measures with an emphasis on muscle force and aerobic capacity evaluations.

#P01 HD058550-01, National Institutes of Health; Translational research in muscle rehabilitation (program project grant). Kenneth Ottenbacher and Glenn Ostir, PIs; Project title: Essential amino acids and functional recovery following traumatic brain injury; 2009-2014. The primary goal of this project is to examine the effectiveness of long-term amino acid supplementation in persons recovering from traumatic brain injury (TBI). The project's aims are to examine changes in both physical and cognitive function. Mossberg has complete oversight of clinical activities and measures of physical function as Project Principal Investigator.



Ostir, Glenn V.

Associate Professor, Department of Internal Medicine – Geriatrics
Associate Professor, Division of Rehabilitation Sciences (SAHS)
University of Texas Medical Branch

Research Interests

Psychological factors, health outcomes, quality of life, positive emotion

Recent Publications

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. NIHMSID: NIHMS88784

Ostir, G.V. Berges, I.M., Ottenbacher, M.E., Clow, A., Ottenbacher, K.J. (2008). Associations between positive emotion and recovery of functional status following stroke. *Psychosomatic Medicine*, 70, 404-409. PMID: PMC2574935

Ostir, G.V., Berges, I.M., Ottenbacher, M.E., Clow, A., 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. NIHMSID: NIHMS88791

Berges, I.M., Kuo, Y.F., Ostir, G.V., Granger, C.V., Graham, J.E., Ottenbacher, K.J. (2008). Gender and ethnic differences in rehabilitation outcomes after hip-replacement surgery. *American Journal of Physical Medicine and Rehabilitation*, 87, 567-572. PMID: 18574348

Ostir, G.V. Berges, I-M, Ottenbacher, M.E., Graham, J.E., Ottenbacher, K.J. (2008). Positive emotion following stroke. *Journal of Rehabilitation Medicine*, 40, 477-481. PMID: PMC2408382

Graham, J.E., Ostir, G.V., Fisher, S.R., Ottenbacher, K.J. (2008). Assessing walking speed in clinical research: A systematic review. *Journal of Evaluation in Clinical Practice*. 14, 552-562. NIHMSID: NIHMS87202

Temple, R.O., Zgaljardic, D.J., Abreu, B.C., Seale, G.S., Ostir, G.V., Ottenbacher, K.J (2009). Ecological validity of the Neuropsychological Assessment Battery Screening Module in post-acute brain injury rehabilitation. *Brain Injury*, 23:1, 45-50.

Ostir, G.V., Berges, I.M., Ottenbacher, M.E., Clow, A., Ottenbacher, K.J., Campbell, J., Kuo, Y.F., Ostir, G.V., Deutsch, A., Granger, C.V., Graham, J.E., Ottenbacher, K.J. (2009). Mexican Americans and Frailty: Findings from the Hispanic Established Populations Epidemiologic Study of the Elderly. *American Journal of Public Health*, 99:4, 673-678. NIHMSID: NIHMS87209

Current Funding

R01-AG024806 (Ostir, PI) 09/2004-08/2009
National Institute on Aging, National Institute of Health, Department of Health & Humans,
Stroke Recovery in Underserved Populations.

R01 AG031178 08/01/2008 – 06/30/2013
National Institute on Aging
Psychological Well Being and Recovery Among Older Hospitalized Adults

R01 AG017638-06 Ottenbacher(PI) Ostir(co-PI) 03/15/05-02/28/10.
National Institute on Aging, National Institute of Health
Disablement Process in Mexican American Older Adults

R01 AG10939 Markides(PI) Ostir(co-PI) 07/1992-11/2008
National Institute on Aging, National Institute of Health, Dept. Health & Humans
Longitudinal Study of Mexican American Elderly Health (Hispanic EPESE)

K01-HD046682 (Ostir, PI) 12/2004-11/2009
National Institute on Child Health and Human Development, NIH, Dept. Health & Humans,
Assessing Quality of Life for Rehabilitation Patients

P30 AG024832 Goodwin(PI) Ostir(co-PI) 07/1992-11/2008
National Institute on Aging, National Institute of Health, Dept. Health & Humans,
UTMB Claude Pepper Older Americans Independence Center

P50 CA105631-01 Goodwin(PI) Ostir(co-PI) 09/2003-08/2008
National Cancer Institute, National Institute of Health, Dept. Health & Humans,
UTMB Center for Population Health and Health Disparities



Paddon-Jones, Douglas

Associate Professor, Department of Physical Therapy (SAHS)
University of Texas Medical Branch

Research Interests

Muscle metabolism, Protein synthesis

Recent Publications

- Symons, T.B., Sheffield-Moore, M., Chinkes, D.L, Ferrando, A.A., and Paddon-Jones, D. NASA Artificial Gravity Pilot Study: artificial gravity maintains skeletal muscle protein synthesis during 21 days simulated microgravity. J.Appl. Physiol. (in press).
- Symons, T.B., Sheffield-Moore, M., Wolfe, R.R. and Paddon-Jones, D. A moderate serving of high-quality protein maximally stimulates skeletal muscle protein synthesis in young and elderly. J. Am. Dietetic Assoc. (in press).
- Dillon, E.L., Sheffield-Moore, M., Paddon-Jones, D., Gilkison, C., Sanford, A.P., Casperson, S.L., Jiang, J., Chinkes, D.L. and Urban, R.J. Amino acid supplementation increases lean body mass, basal muscle protein synthesis and IGF-I expression in older women. J. Clin. Endocrinol. Metab., (In Press), 2008
- Kortebein, P., Symons, T.B., Ferrando, A.A., Paddon-Jones, D., Ronsen, O., Protas, E., Conger, S., Lombeida, J., Wolfe, R.R., Evans, W.J. Functional impact of ten days bed rest in healthy older adults. J. Geron. 63(10):1076-81. 2008

Current Funding

MA02001 Paddon-Jones (PI) 07/09-06/13
NASA, National Space Biomedical Research Institute
An Integrated Low-Volume Nutritional Countermeasure to Maintain Muscle Mass and Function during Space Exploration

UT TeleCampus Utsey (PI) 08/08 -08/09
Pharmacology and Imaging: Two online courses for DPT students and practicing physical therapist
Role: Co-I/Course Instructor

R01 CA127971 Sheffield-Moore (PI) 04/08-03/13
NIH/NCI
Nutrition and Anabolic Interventions in Cancer Cachexia
Role: Co-I

UTMB Brasier (PI) 05/08-05/10
Claude D. Pepper Older Americans Independence Center
Serum Biomarkers in Inactivity-Induced Sarcopenia.
Role: Co-I

UTMB Brasier (PI) 05/08-05/10
Claude D. Pepper Older Americans Independence Center
Serum biomarkers in inactivity-induced sarcopenia
Role: Co-I



Perez-Polo, J. Regino

Professor & Chair, Department Biochemistry & Molecular Biology
University of Texas Medical Branch

Research Interests

Mechanisms of neuronal cell death and deficits associated with both acute and chronic trauma to the central nervous system at a molecular and cellular level

Recent Publications

Gill MB, Perez-Polo JR., Hypoxia ischemia-mediated cell death in neonatal rat brain. *Neurochemical Research*, DOI 10.1007/S11064-008-9649-1, 2008.

Gill, Martin, K.H. Bockhorst, P.A. Narayana, J.R. Perez-Polo. Bax shuttling after neonatal hypoxia-ischemia: hyperoxia effects. *J. Neuroscience Res.*, DOI:10.1002/jnr.21795

Ye, Yumei, Martinez JD, Perez-Polo JR, Lin Y, Uretsky BF, Birnbaum, Y. The role of eNos, nNos and NFκB in upregulation and activation of cyclooxygenase-2 and infarct size reduction by atorvastatin. *AJP: Heart & Circulatory Physiology* 295:343-351-2008. doi:10.1152/ajpheart.01350.2007

Fabian RH, Perez-Polo JR, Kent TA. Perivascular nitric oxide and superoxide in neonatal cerebral hypoxia-ischemia. *American Journal of Physiology: Heart and Circulatory Physiology* 295: H1809-H1814, 2008. doi:10.1152/ajpheart.00301.2007

Ye, Y., Lin Y, Perez-Polo JR, Uretsky BF, Ye Z, Tieu BC & Birnbaum Y. Phosphorylation of 5-lipoxygenase at Ser⁵²³ by protein kinase A (PKA) determined whether pioglitazone and atorvastatin induce pro-inflammatory leukotriene B₄ or anti-inflammatory 15-epi-lipoxin A₄ production: *Journal of Immunology* 181:3515-3523, 2008.

Ye, Y, Lin Y, Perez-Polo JR, Birnbaum Y. Oral glyburide, but not glimepiride, blocks the infarct-size limiting effects of pioglitazone. *CARD: 22:6*, 429-436, 2008. <http://dx.doi.org/10.1007/s10557-008-6138-3>

Current Funding

PT074693P9 DoD 08/01/2008 – 07/31/2013

Mission Connect Mild TBI Translational Research Consortium \$25,000,000

Project 3: PI: 25% effort, annual \$336,693

Treatment of mild TBI in a rat model with anti-inflammatory agents

P01 HDO039833 Perez-Polo (PI) 09/01/2003 – 06/30/2009

NICHHD 40% effort, annual \$120, 984

Brain Cell Death Mechanisms after Perinatal Ischemia

The overall hypothesis is that hypoxia/ischemia-associated oxidative stress in postnatal day 1 (P7) rats results in DNA damage, delayed cell death, and inflammation; all risk factors to neuronal development and function. The characterization of the signal transduction pathways that regulate cell death processes and determine outcomes will allow for rational design of interventions to decrease cell death and reduce inflammatory cascades. This P01 is not being submitted for competitive renewal to NICDH to a shift in focus of the research goals of the team to a more translational approach



Rasmussen, Blake B., Ph.D.

Associate Professor, Department of Physical Therapy (SAHS)
Director, Skeletal Muscle Biology & Metabolism Laboratory
University of Texas Medical Branch

Research Interests

Muscle metabolism and physiology related to exercise, diabetes and exercise

Recent Publications

Drummond, M.J., H.C. Dreyer, B. Pennings, C.S. Fry, S. Dhanani, E.L. Dillon, M. Sheffield-Moore, E. Volpi, and B.B. Rasmussen. Skeletal muscle protein anabolic response to resistance exercise and essential amino acids is delayed with aging. *Journal of Applied Physiology*, 104(5):1452-6, 2008. PMID: 18323467.

Drummond, M.J., J.A. Bell, S. Fujita, H.C. Dreyer, E.L. Glynn, E. Volpi, and B.B. Rasmussen. Amino acids are necessary for the insulin-induced activation of mTOR/S6K1 signaling and protein synthesis in healthy and insulin resistant human skeletal muscle. *Clinical Nutrition* 27: 447-456, 2008.

Volpi, E., D.L. Chinkes, and B.B. Rasmussen. Sequential muscle biopsies during a six-hour tracer infusion do not affect human mixed muscle protein synthesis and muscle phenylalanine kinetics. *American Journal of Physiology: Endocrinology & Metabolism* 295(4): E959-63, 2008.

Drummond M.J., J.J. McCarthy, C.S. Fry, K.A. Esser, and B.B. Rasmussen. Aging differentially affects human skeletal muscle microRNA expression at rest and after an anabolic stimulus of resistance exercise and essential amino acids. *American Journal of Physiology: Endocrinology & Metabolism* 295(6): E1333-E1340, 2008.

Dreyer H.C., M.J. Drummond, E.L. Glynn, S. Fujita, D.L. Chinkes, E. Volpi and B.B. Rasmussen. Resistance exercise increases human skeletal muscle AS160/TBC1D4 phosphorylation in association with enhanced leg glucose uptake during post-exercise recovery. *Journal of Applied Physiology* 105(6):1967-74, 2008.

Paddon-Jones, D. and B.B. Rasmussen. Dietary protein recommendations and the prevention of sarcopenia. *Current Opinion in Clinical Nutrition and Metabolic Care* 12: 86-90, 2009.

Fujita, S., H.C. Dreyer, M.J. Drummond, E.L. Glynn, E. Volpi, and B.B. Rasmussen. Essential amino acid and carbohydrate ingestion prior to resistance exercise does not enhance post-exercise muscle protein synthesis. *Journal of Applied Physiology*, Epub ahead of print, June 5, 2008.

Drummond M.J., M. Miyazaki, H.C. Dreyer, B. Pennings, S. Dhanani, E. Volpi, K.A. Esser, and B.B. Rasmussen. Expression of growth-related genes in young and old human skeletal muscle following an acute stimulation of protein synthesis. *Journal of Applied Physiology*, Epub ahead of print Sept. 11, 2008.

Drummond, M.J., H.C. Dreyer, C.S. Fry, E.L. Glynn, and B.B. Rasmussen. Nutritional and contractile regulation of human skeletal muscle protein synthesis and mTORC1 signaling. *Journal of Applied Physiology*, ePub ahead of print Jan. 15, 2009.

Rasmussen, B.B., and E.A. Richter. The balancing act between protein synthesis and breakdown: exercise as a model to understand the molecular mechanisms regulating muscle mass. *Journal of Applied Physiology*, ePub ahead of print Jan. 29, 2009.

Drummond M.J., C.S. Fry, E.L. Glynn, H.C. Dreyer, S. Dhanani, K.L. Timmerman, E. Volpi, and B.B. Rasmussen. Rapamycin administration in humans blocks the contraction-induced increase in skeletal muscle protein synthesis. *Journal of Physiology* 587(7): 1535–1546, 2009.

Current Funding

R01 AR049877-05	Rasmussen (PI)	09/15/08-08/31/13	NIH/NIAMS
Nutritional and Contractile Regulation of Muscle Growth			
R01 AG18311	Volpi (PI)	09/15/05-08/31/10	NIH/NIA
Insulin and Sarcopenia in the Elderly Role: Co-I			
R01 AG030070	Volpi (PI)	08/01/08-07/31/13	NIH/NIA
Nutrition & Exercise to Improve Protein Metabolism & Prevent Sarcopenia in Aging			
P30 AG024832	Goodwin (PI)	02/01/00-01/31/10	NIH/NIA
UTMB Claude Pepper Older Americans Independence Center Role: Pilot/Exploratory Core Co-Leader			
R01 HD051844	Protas (PI)	09/25/06-08/31/11	NIH/NICHHD
Gait and Step Training to Prevent Falls in Parkinson's Disease			

Role: Co-I



Sheffield-Moore, Melinda

Associate Professor, Department of Internal Medicine - Endocrinology
University of Texas Medical Branch

Research Interests

Sarcopenia of aging, Cancer-related muscle loss, Skeletal muscle protein metabolism

Recent Publications

- Veldhuis, J.D., Richmond, E.J., Lovejoy, J.C., Sheffield-Moore, M. (In Press) 2007. Interactions between sex steroids and GH on target tissues in energy expenditure. *Endocrine Reviews*.
- Dillon, E.L., Volpi, E., Wolfe, R.R., Sinha, S., Sanford, A.P., Arrastia, C.D., Urban, R.J., Casperson, S.L., Paddon-Jones, D., Sheffield-Moore, M. (2007). Amino acid metabolism and inflammatory burden in ovarian cancer patients undergoing intense oncological therapy. *Clinical Nutrition*, 26(6), 736-743.
- Cree, M.G., Newcomer, B.R., Read, L.K., Sheffield-Moore, M., Paddon-Jones, D., Chinkes, D., Aarsland, A., Wolfe, R.R. (2007). Plasma triglycerides are not related to tissue lipids and insulin sensitivity in elderly following PPAR-alpha agonist treatment. *Mechanisms of Ageing and Development*, 128(10), 558-565.
- Symons, T.B., Schutzler, S.E., Cocke, T.L., Chinkes, D.L., Wolfe, R.R., Paddon-Jones, D. (2007). Aging does not impair the anabolic response to a protein-rich meal. *American Journal of Clinical Nutrition*, 86(2), 451-456.
- Fitts, R.H., Romatowski, J.G., Peters, J.R., Paddon-Jones, D., Wolfe, R.R., Ferrando, A.A. (2007). The deleterious effects of bed rest on human skeletal muscle fibers are exacerbated by hypercortisolemia and ameliorated by dietary supplementation. *American Journal of Physiology-Cell Physiology*, 293(1), C313-C320.
- Uchakin, P.N., Stowe, R.P., Paddon-Jones, D., Tobin, B.W., Ferrando, A.A., Wolfe, R.R. (2007). Cytokine secretion and latent herpes virus reactivation with 28 days of horizontal hypokinesia. *Aviation Space and Environmental Medicine*, 78(6), 608-612.

Current Funding

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| R01 CA127971
NIH/NCI
Nutrition and Anabolic Interventions in Cancer Cachexia | Sheffield-Moore (PI) | 04/01/08 – 03/31/13 |
| R01 AG022023-01
NIH/NIA
Cyclic Testosterone on Muscle Function in Older Men
The goal of this project is to determine if a cycling regimen of testosterone (i.e. one month on and one month off) will enhance the normal protein anabolic effect of testosterone on skeletal muscle. | Urban (PI) | 01/01/04 – 12/30/09 |
| R01 AG18311-08
NIH/NIA
Insulin and sarcopenia in the elderly
The major goals are to establish if a relative insulin resistance of muscle protein turnover is responsible for the loss of muscle with aging.
Role: Co-I | Volpi (PI) | 09/15/00-08/31/10 |
| 2 M01 RR000073-43G
NIH/NCRR
General Clinical Research Center
Role: Assistant Program Director | Anderson(PI) | 06/15/05 – 03/31/10 |



Volpi, Elena

Associate Professor, Department of Internal Medicine - Geriatrics
Director, Mass Spectrometry Laboratory, Sealy Center on Aging
University of Texas Medical Branch

Research Interests

Insulin sensitivity, protein synthesis

Recent Publications

- Dillon, E.L., E. Volpi, R.R. Wolfe, S. Sinha, A.P. Sanford, C.D. Arrastia, R.J. Urban, S.L. Casperson, D. Paddon-Jones, and M Sheffield-Moore. Amino acid metabolism and inflammatory burden in ovarian cancer patients undergoing intense oncological therapy. *Clin Nutr* 26(6):736-743, 2007.
- Drummond, M.J., S. Fujita, A. Takashi, H.C. Dreyer, E. Volpi, and B.B. Rasmussen. Human muscle gene expression following resistance exercise and blood flow restriction. *Medicine and Science in Sports and Exercise* 40:691-698, 2008.
- Drummond, MJ, Dreyer HC, Pennings B, Fry CS, Dhanani S, Dillon EL, Sheffield-Moore M, Volpi E, and Rasmussen BB. Skeletal muscle protein anabolic response to resistance exercise and essential amino acids is delayed with aging. *Journal of Applied Physiology*, 104:1452-1461, 2008.
- Drummond MJ, Bell JA, Fujita S, Dreyer HC, Glynn EL, Volpi E, and Rasmussen BB. Amino acids are necessary for the insulin-induced activation of mTOR/S6K1 signaling and protein synthesis in healthy and insulin resistant human skeletal muscle. *Clinical Nutrition* 27(3):447-56, 2008.
- Volpi, E., D.L. Chinkes, and B.B. Rasmussen. Sequential muscle biopsies during a six-hour tracer infusion do not affect human mixed muscle protein synthesis and muscle phenylalanine kinetics. *Am J Physiol Endocrinol Metab.* 295(4):E959-63, 2008.
- Drummond MJ, Miyazaki M, Dreyer HC, Pennings B, Dhanani S, Volpi E, Esser KA, and Rasmussen BB. Expression of growth-related genes in young and old human skeletal muscle following an acute stimulation of protein synthesis. *J Appl Physiol*, In Press [e-pub ahead of print September 2008]
- Dreyer, H.C., M.J. Drummond, E.L. Glynn, S. Fujita, E. Volpi, B.B. Rasmussen. Fat oxidation and glucose uptake are increased following an acute bout of resistance exercise: Role of AMPK, ACC, Akt/PKB, and AS160. *Journal of Applied Physiology*, 105: 1967-1974, 2008.

Current Funding

R01 AG18311	Volpi (PI)	09/15/00-08/31/10	NIH/NIA
Insulin and sarcopenia in the elderly Role: Principal Investigator			
R01 AG030070	Volpi (PI)	08/01/08-05/31/13	NIH/NIA
Nutrition & exercise to improve protein metabolism and prevent sarcopenia in aging Role: Principal Investigator			
R01 AR049877	Rasmussen (PI)	09/01/04-08/31/13	NIH/NIAMS
Nutritional and contractile regulation of muscle growth Role: Co-Investigator			
P30 AG024832	Goodwin (PI)	02/01/05-01/31/10	NIH/NIA
UTMB Claude Pepper Older Americans Independence Center Role: Co-Director and Metabolism Research Core Leader			
K12 HD055929	Ottenbacher (PI)	09/01/07 – 06/30/12	NIH/NCMRR
Rehabilitation Research Career Development Program Role: Mentor			
R01 CA127971	Sheffield-Moore (PI)	04/18/08-03/31/13	NIH/NCI
Nutrition and anabolic intervention in cancer cachexia Role: Co-Investigator			
K01 HD057332	Dreyer (Mentee)	09/01/08-08/31/13	
National Institute of Child Health and Human Development Muscle Regrowth during Physical Rehabilitation and Amino Acid Supplementation			

Role: Mentor