Susan Christine Kandarian Professor, Department of Health Sciences Boston University 635 Commonwealth Ave., Room 443 Boston, MA 02215 617.353.5169 Fax: 617.353.7567 Email: <u>skandar@bu.edu</u> Website: <u>www.bu.edu/kandarian</u>

Education

1981	B.A., Albion College, Albion, MI, Biology major (Cum Laude)
1983	M.S., The University of Michigan, Ann Arbor, MI
1988	Ph.D., The University of Michigan, Ann Arbor, MI
1989-1992	Postdoctoral experience, trained with Dr. Javier Navarro at Boston University School of Medicine while Assistant Professor of Health Sciences, Boston University, (see publications)

Primary Academic Appointments

1988-1994	Assistant Professor,	Department	of Health S	Sciences,	Boston	University
	,					2

- 1994-2002 Associate Professor, Department of Health Sciences (tenured), Boston University
- 2002-present Professor, Department of Health Sciences, Boston University

Secondary Appointments & Academic Program Participation

1989-1994	Research Assistant Professor, NeuroMuscular Research Center, Boston University
1991-present	Research Assistant Professor, Department of Physiology, Boston University School of Medicine
1994-present	Research Associate Professor, NeuroMuscular Research Center, Boston University
1998-present	Participating faculty member, Molecular Biology, Cellular Biology & Biochemistry (MCBB) interdepartmental doctoral program, Boston University

Grant Awards

As Principal Investigator (or Mentor where noted):

2011-2016 National Institutes of Health, R01 AR060217 2007-2013 National Institutes of Health, R01 AR41705 2009-2011 National Institutes of Health, R01 AR041705-15S1 2007-2009 National Institutes of Health, R21 AR054446 2006-2009 National Institutes of Health, F32 AR054265, post-doctoral fellow award to Darin Van Gammeren (NRSA) 2006-2007 Boston University Provost's SPRInG Award - Intramural 2004-2007 National Aeronautics Space Administration, NNA04CD02G National Space Biomedical Research Institute, post-doctoral fellow award to Andrew 2004-2006 Judge (PF00501) National Institutes of Health, R01 AR41705 2002-2007 2002-2004 National Institute of Health, R21 AG019754 2001-2004 National Space Biomedical Research Institute, Muscle atrophy and alterations team (00-NSBRI-01-038) National Aeronautics Space Administration, pre-doctoral stipend award to Eric 2000-2003 Stevenson (NGT5-50307) National Institutes of Health, R01 AR41705 1997-2000 National American Heart Association, Established Investigator Award 1995-2000 1995-1998 National American Heart Association, Grant-in-Aid Award 1995-1996 National Aeronautics and Space Administration (contract, \$20,000) 1992-1996 National Institutes of Health, R29 AR41705 1992-1994 American Heart Association-Massachusetts Affiliate, Grant-in-Aid 1991-1992 Boston University Biomedical Seed Grant 1989-1990 American College of Sports Medicine Foundation Grant 1989 Boston University Biomedical Seed Grant

Awards & Honors

1995-2000	Established Investigator Award, American Heart Association
1999	University of Michigan, Alumni Achievement Award
1995	Sargent College Faculty Merit Award for Outstanding Professional Service
1988	Dissertation of the Year Award, University of Michigan
1985	University of Michigan, Rackham Graduate School Doctoral Research Award
1981	Elected to Beta Beta Biology Honorary, 1981

Publications in Peer Reviewed Journals

- Snyder CM, Held A, Rice AL, Estrella N, **Kandarian** SC, Naya FJ. (2013) MEF2A regulates the *Gtl2-Dio3* miRNA mega-cluster to modulate WNT signaling in skeletal muscle regeneration. Development, 140:31-42.
- Jackman RW, Wu CL, **Kandarian** SC. (2012) The ChIP-seq-defined networks of Bcl-3 gene binding support its required role in skeletal muscle atrophy. PLoS ONE, 7(12): e51478.
- Jackman RW, Cornwell EW, Wu C-L, **Kandarian** SC. NF-kappaB signaling pathway and transcriptional regulation in skeletal muscle atrophy. *Exp Physiol.* 2012 Jul 30.
- Yamaki T, Wu CL, Gustin M, Lim J, Jackman RW, Kandarian SC. Rel A/p65 is required for cytokine induced myotube atrophy. Am J Physiol Cell Physiol. 2012 Jul;303(2):C135-42
- Wu CL, **Kandarian** SC. Protein overexpression in skeletal muscle using plasmid-based gene transfer to elucidate mechanisms controlling fiber size. *Methods Mol Biol.* 2012;798:231-43.
- Kielbasa OM, Reynolds JG, Wu CL, Snyder CM, Cho MY, Weiler H, **Kandarian** S, Naya FJ. Myospryn is a calcineurin-interacting protein that negatively modulates slow-fiber-type transformation and skeletal muscle regeneration. *FASEB J*. 2011 Jul;25(7):2276-86.
- Reed SA, Senf SM, Cornwell EW, Kandarian SC, Judge AR. Inhibition of IkappaB kinase alpha (IKKα) or IKKbeta (IKKβ) plus forkhead box O (Foxo) abolishes skeletal muscle atrophy. *Biochem Biophys Res Commun.* 2011 Feb:405(3):491-6
- Wu CL, **Kandarian** SC, Jackman RW. Identification of genes that elicit disuse muscle atrophy via the transcription factors p50 and Bcl-3. *PLoS One*. 2011 Jan 13;6(1)
- Rhoads MG, Kandarian SC, Pacelli F, Doglietto GB, Bossola M. Expression of NF-kappaB and IkappaB proteins in skeletal muscle of gastric cancer patients. *Eur. J. Cancer.* 2010 Jan;46(1):191-7.
- Jackman RW, Rhoads MG, Cornwell E, **Kandarian** SC. Microtubule mediated NF-kappaB activation in the TNF-alpha signaling pathway. *Exp Cell Res.* 2009 Nov 15;315(19):3242-9.
- Van Gammeren D, Damrauer JS, Jackman RW, Kandarian SC. The IkappaB kinases IKKalpha and IKKbeta are necessary and sufficient for skeletal muscle atrophy. FASEB J. 2009 Feb;23(2):362-70. Epub 2008 Sep 30.
- **Kandarian** S. The molecular basis of skeletal muscle atrophy parallels with osteoporotic signaling. J Musculoskelet Neuronal Interact. 2008 Oct-Dec;8(4):340-1.

- Koncarevic A, Jackman RW, and **Kandarian** SC. The ubiquitin-protein ligase Nedd4 targets Notch1 in skeletal muscle and distinguishes the subset of atrophies caused by reduced muscle tension. *FASEB J.* 2007 Feb;21(2):427-37. Epub 2006 Dec 16.
- Judge AR, Koncarevic A, Hunter RB, Liou H-C, Jackman RW, **Kandarian** SC. Role for IκBα, but not c-Rel, in skeletal muscle atrophy. *Am J Physiol Cell Physiol*. 2007 Jan;292(1):C372-82. Epub 2006 Aug 23
- **Kandarian** SC, Jackman RW. Intracellular signaling during skeletal muscle atrophy. Muscle Nerve. 2006; 33; 155-165.
- Kandarian SC. Large scale gene expression profiles as tools to study skeletal muscle adaptation. Chapter 2, in, Skeletal Muscle Plasticity in Health and Disease: From Genes to Whole Muscle. Eds. C. Reggiani and R. Bottinelli, Springer:New York, 2006.
- Stevenson EJ, Koncarevic A, Giresi PG, Jackman RW, **Kandarian** SC. The transcriptional profile of a myotube starvation model of atrophy. *J Appl Physiol.*, 98(4):1396-406, 2005.
- Giresi PG, Stevenson EJ, Theilhaber J, Koncarevic A, Parkington J, Fielding RA, **Kandarian** SC. Identification of a molecular signature of sarcopenia. *Physiol. Genomics* 21(2):253-63, 2005.
- Hunter RB, **Kandarian** SC. Disruption of either the Nfkb1 or the Bcl3 gene inhibits skeletal muscle atrophy. *J Clin Invest*. 114(10):1504-1511, 2004.
- Jackman RW, Kandarian SC. The molecular basis of skeletal muscle atrophy. Am J. Physiol. Cell Physiol. 287: C834-C843, 2004.
- Stevenson EJ, **Kandarian** SC. Gene expression profiling shows its muscle. *Physiology News*. 54: 24-25, 2004.
- Stevenson EJ, Giresi PG, Koncarevic A, **Kandarian** SC. Global analysis of gene expression patterns during disuse atrophy in rat skeletal muscle. *J. Physiol.* 551.1; 33-48, 2003.
- Kandarian SC. Stevenson EJ. Molecular events in skeletal muscle during disuse atrophy. *Exerc. Sport Sci Rev.* 30(3):111-6, 2002.
- Hunter RB, Stevenson E, Koncarevic A, Felton H, Essig DA, **Kandarian** SC. Activation of an alternative NF-κB pathway in skeletal muscle during disuse atrophy. *FASEB Journal*. 16(6): 529-538, 2002.
- Hunter, R.B. H. Mitchell-Felton, D.A. Essig, and S.C. Kandarian. Expression of endoplasmic reticulum stress proteins during skeletal muscle disuse atrophy. Am. J. Physiol. Cell Physiol., 281: C1285-1290, 2001.
- Hornberger, T.A., R.B. Hunter, S.C. Kandarian, and K.A. Esser. Regulation of translation factors during hindlimb unloading and denervation of skeletal muscle in rats. Am. J. Physiol. Cell Physiol. 281: C179-C187, 2001.
- Mitchell-Felton, H., R.B. Hunter, E. Stevenson, and S.C. **Kandarian**. Identification of weight-bearing responsive elements in the skeletal muscle SERCA1 gene. *J. Biol. Chem.* 275: 23005-23011, 2000.
- Swoap, S.J., R.B. Hunter, E.J. Stevenson, H. Mitchell-Felton, N.V. Kansagra, J.M. Lang, K. A. Esser, and S.C. Kandarian. The calcineurin-NFAT pathway in muscle specific gene expression. *Am. J. Physiol. Cell Physiol.* 279: C915-C924, 2000.
- Mitchell-Felton, H. and S.C. Kandarian. Normalization of muscle plasmid uptake by Southern blot: application to SERCA1 promoter analysis. *Am. J. Physiol Cell Physiol.* 277: C1269-C1276, 1999.

- Peters, D.G., H. Mitchell-Felton, and S.C. **Kandarian**. Unloading induces transcriptional activation of the sarco[endo]plasmic reticulum Ca²⁺ ATPase 1 gene in muscle. *Am. J. Physiol. Cell Physiol.* 276: C1218-C1225, 1999.
- Peters, D.G., H.L. Mitchell, S.A. McCune, S. Park, J.H. Williams, and S.C. Kandarian. Expression of the sarcoplasmic reticulum calcium ATPase gene in skeletal muscle from rats with congestive heart failure. *Circ. Res.* 81(5): 703-710, 1997.
- Kandarian, S.C., D.G. Peters, T.G. Favero, C.W. Ward, and J.H. Williams. Adaptation of the skeletal muscle calcium release mechanism to weight bearing. *Am. J. Physiol.* 270 (Cell Physiol. 39): C1588-1594, 1996.
- Kupa, E.J., S.H. Roy, S.C. **Kandarian**, and C.J. DeLuca. Effects of muscle fiber type and size on EMG median frequency and conduction velocity. *J. Appl. Physiol*. 79(1): 23-32, 1995.
- Fauteck, S. and S.C. Kandarian. Separation of myosin heavy chain isoforms from skeletal muscle under different loading conditions. *Am. J. Physiol.* 268 (*Cell Physiol.* 37): C419-C424, 1995.
- Schulte, L., D. Peters, J. Taylor, J. Navarro, and S. Kandarian. Sarcoplasmic reticulum calcium pump expression in denervated skeletal muscle. Am. J. Physiol. 267 (Cell Physiol. 36): C617-C622, 1994.
- Kandarian, S.C., D.G. Peters, J.A. Taylor, and J.H. Williams. Skeletal muscle overload upregulates the sarcoplasmic reticulum slow calcium pump gene. Am. J. Physiol. 266 (Cell Physiol. 35): C1190-C1197, 1994
- Taylor, J.A. and S.C. **Kandarian**. Advantage of normalizing force production to myofibrillar protein in skeletal muscle cross-sectional area. *J. Appl. Physiol.* 76(2):974-978, 1994.
- Kandarian, S.C. and J.H. Williams. Contractile properties of single fibers from hypertrophied skeletal muscles. *Med. Sci. Sports Exerc.* 25: 999-1004, 1993.
- Schulte, L.M., J. Navarro, S.C. Kandarian. Sarcoplasmic reticulum calcium pump gene expression with muscle unloading. *Am. J. Physiol.* 264 (*Cell Physiol.* 33): C1308-C1315, 1993.
- Kandarian, S.C., J.C. Young, and E.E. Gomez. Adaptation in synergistic muscles to soleus and plantaris muscle removal in the rat hindlimb. *Life Sci.* 51(21): 1691-1698, 1992.
- Young, J.C., S.C. Kandarian, and T.G. Kurowski. Skeletal muscle glucose uptake following overload-induced hypertrophy. *Life Sci.* 50: 1319-1325, 1992.
- Kandarian, S.C., S. O'Brien, K. Thomas, L. Schulte, and J. Navarro. Regulation of dihydropyridine receptor gene expression by biomechanical unloading. J. Appl. Physiol. 72(6):2510-2514, 1992.
- Kandarian, S.C., L.M. Schulte, and K.A. Esser. Age effects on myosin subunit and myofibrillar alterations with skeletal muscle hypertrophy. *J. Appl. Physiol.* 72(5):1934-1939, 1992.
- Kandarian, S.C., R. Boushel, and L.M. Schulte. Enlarged interstitial fluid volume of atrophied rat soleus muscles by hindlimb unweighting. *J. Appl. Physiol.* 71(3): 910-914, 1991.
- Powers, L.V., S.C. Kandarian, and T.H. Kunz. Ontogeny of flight in the little brown bat, *Myotis lucifugus*: behavior, morphology, and muscle histochemistry. J. Comp. Physiol. A 168: 675-685, 1991.
- Morrell, E.M., O.G. Cameron, S.C. Kandarian, R.M. Renk, A.D. Weder, O.F. Pomerleau. Aerobic physical training and alterations in pressor response during norepinephrine infusion: a controlled single-subject experiment. *Int. J. Sports Med.* (11)1: 53-57, 1990.

- Kandarian, S.C. and T.P. White. Force deficit persists during long-term muscle hypertrophy. J. Appl. *Physiol.* 69(3): 861-867, 1990.
- Kandarian, S.C. and T.P. White. Force deficit during the onset of muscle hypertrophy. J. Appl. Physiol. (67)6: 2600-2607, 1989.
- Borer, K.T., C.S. Campbell, J. Tabor, K. Jorgenson, S. **Kandarian**, and L. Gordon. Exercise reverses photoperiodic anestrus in golden hamsters. *Biol. Reprod.* 29: 38-47, 1983.

Presentations with Abstracts (over half are poster presentations)

- Cornwell E, Wu CL, Mirbod A, Kandarian SC, Jackman RW. NF-κB signaling proteins and transcription factors required for cancer-induced muscle wasting. Cancer Cachexia: Molecular Mechanisms and Therapeutic Approaches meeting. Boston, MA, September 21-23. 2012
- Snyder CM, Held A, Rice AL, Estrella N, Kandarian SC, Naya FJ. MEF2A regulates the Gtl2-Dio3 miRNA mega-cluster to modulate Wnt signaling in skeletal muscle regeneration. New Directions in Biology and Disease of Skeletal Muscle Conference. New Orleans, Louisiana, June 17-21, 2012.
- Wu CL, Kandarian SC, Jackman RW. NF-kappaB plays a central role in the upregulation of proteolytic genes in muscle atrophy. Advances in Skeletal Muscle Biology in Health and Disease. University of Florida, Gainesville, FL. February 22-24, 2012.
- Cornwell EW, Jackman RW, Mirbod A, Wu CL, **Kandarian** SC. The role of NFκB in cancer cachexia-induced skeletal muscle wasting. Experimental Biology Meeting, Washington, DC, April 9-13, 2011
- Wu CL, **Kandarian** SC, Jackman RW. Identifying gene targets for Bcl-3 and p50 in unloading induced muscle atrophy. Experimental Biology Meeting, Washington, DC, April 9-13, 2011.
- Snyder CM, Held A, Ewen EP, Kielbasa OM, Kandarian SC, Naya FJ. Mef2A regulation of a miRNA mega-cluster is required for proper skeletal muscle regeneration. Keystone Symposium: MicroRNAs and Human Disease. Feb 11-16, 2011 Banff, Alberta, Canada.
- Reed, S.A., S.M. Senf, A. W. Cornwell, S.C. Kandarian and A.R. Judge. Inhibition of IKKalpha or IKKbeta plus Foxo abolishes skeletal muscle disuse atrophy. FASEB Summer Conference: Skeletal Muscle Satellite & Stem Cells. Carefree, Arizona, July 18-23, 2010.
- Naya FJ, Kielbasa OM, Reynolds J, Weiler H, Kandarian S. Conference: Making Muscle in the Embryo and Adult. Title: Myospryn modulates skeletal muscle regeneration and fiber-type transformation through the calcineurin-NFAT signaling pathway. May 28 - June 2, Columbia University, New York, NY, 2009
- Koncarevic, A., R.W. Jackman, and S.C. Kandarian. The ubiquitin-protein ligase Nedd4 regulates Notch1 in tension sensitive models of skeletal muscle atrophy. Meeting, Frontiers in Myogenesis, Callaway Gardens, Pine Mountain, Georgia, April 27 - 30, 2006.
- Van Gammeren, D., A. Judge, and S.C. Kandarian. The role of IKKbeta and IKKalpha in the activation of NF-kB during skeletal muscle atrophy. Meeting, Frontiers in Myogenesis, Callaway Gardens, Pine Mountain, Georgia, April 27 - 30, 2006.

- Judge, A., A. Koncarevic, and S.C. **Kandarian**. Inhibition of IkB alpha degradation prevents NF-kB activation and attenuates fiber atrophy and gene expression during unloading. FASEB Summer Research Conference, Skeletal Muscle Satellite and Stem Cells, Tucson, AZ. June 11-16, 2005. (won award)
- Jackman, R.W., R.B. Hunter, and S.C. Kandarian. Changes in cultured myotubes mediated by the adenoviral delivery of an EGFP-Bcl-3 fusion protein. NASA's Bioastronautics Investigators' Workshop, January 9-12, 2005, Galveston, TX
- Stevenson EJ, Giresi PG, Fielding A, **Kandarian S.C**. Comparison of global gene expression patterns in atrophy due to disuse, cell starvation and human aging. *FASEB J*. 18(4): LB513, 2004.
- Hunter, R.B., and S.C. **Kandarian**. Targeted disruption of either the *nfkb1* gene or the *bcl-3* gene markedly attenuates skeletal muscle atrophy due to unloading. *FASEB J.* 18(4): 237.6 2004. (won award)
- Hunter, RB, S.C. **Kandarian**. Targeted disruption of NF-kB1 and bcl-3 genes attenuate skeletal muscle atrophy in mice. NIH sponsored muscle pathology meeting entitled, "New Directions in Biology and Disease of Skeletal Muscle," Paradise Point Resort, San Diego, CA, January 25-27, 2004.
- Jackman, RW, A. Koncarevic, and SC **Kandarian**. The production of adenoviral expression vectors to study the role of proteolytic genes in muscle atrophy. NSBRI Investigator Retreat. Del Lago Conference Center, Montgomery, TX, January 12-15, 2004.
- Koncarevic, A, RW. Jackman, and SC. Kandarian. Upregulation of ubiquitin-protein ligase Nedd4 in skeletal muscle disuse atrophy. FASEB Summer Research Conference on "Skeletal Muscle Satellite and Stem Cells". Omni Tucson National Golf Resort, Tucson, Az, July 26-30, 2003.
- Stevenson, E., P. Giresi, A. Koncarevic, S. Kandarian. Temporal analysis of muscle gene expression patterns during disuse muscle atrophy. Molecular Biology of Muscle Development and Regeneration. The Banff Centre, Alberta, Canada, June 2, 2003.
- Williams, J, M. Spangenburg, E. Spangenburg, S.E. Vidt, S. Lees, R.B. Hunter and S.C. Kandarian. Differential effects of heart failure on skeletal muscle sarcoplasmic reticulum calcium handling and ATPase activity. *FASEB J.* 17(4): 598.15, 2003.
- Vidt, S.E., S. Lees, S.C. **Kandarian**, R.B. Hunter and J.H. Williams. ATP and substrate supported skeletal muscle sarcoplasmic reticulum calcium uptake in heart failure. *FASEB J*. 17(4): 598.16, 2003.
- Allen, E.A., S. Lees, R.B. Hunter, S.C. Kandarian and J.H. Williams. Changes in skeletal muscle sarcoplasmic reticulum calcium handling proteins in heart failure. *FASEB J.* 17(4): 598.17, 2003.
- Hunter, R.B., E.J. Stevenson, and S.C. Kandarian. Activation of NF-kB in muscle atrophy during unloading. *FASEB J.* 14(4), April 2001.
- Stevenson E.J., J.C. Prasad, and S.C. Kandarian. Sarcogene: A skeletal muscle gene expression database. *The Physiologist*, 43(4): 340, 2000.
- Homberger, T.A., R.B. Hunter, S.C. Kandarian, and K.A. Esser. Translational regulation during hindlimb unloading. *The Physiologist*, 43(4): 349, 2000.

- Lang, J., S. Swoap, E. Stevenson, R. Hunter, H. Felton, N. Kansagra, S. Kandarian, and K. Esser. Effect of constitutively active calcineurin on muscle specific promoters in vitro and in vivo. The Molecular Biology of Muscle Development and Disease, May 21-26, 2000, Asilomar Conference Center, Monterey Peninsula, California.
- Mitchell-Felton, H., R.B. Hunter, E.J. Stevenson, and S.C. **Kandarian**. Regions of the muscle SERCA1 gene responsible for high-level expression and biomechanical loading are distinct. *FASEB J.*, 13(4): A410, 1999. (won award)
- Peters, D.G., H.L. Mitchell, and S.C. Kandarian. Transcriptional activation of the SERCA1 gene in skeletal muscle by the removal of weight-bearing. *FASEB J.*, 12(5): A666, 1998. (won award)
- Roy, S.H., E.J. Kupa, C.J. DeLuca, S.C. Kandarian, and P. Bonato. Effects of muscle unloading on EMG spectral parameters. NASA hosted 12th IAA Man in Space Symposium. Washington, DC, June 8-13, 1997.
- Perkins, T.N., C.W. Ward, J.H. Williams, D.G. Peters, and S.C. Kandarian. Changes in skeletal muscle sarcoplasmic reticulum function during congestive heart failure. FASEB J. 10(5): A384, 1996.
- Kandarian, S.C., D.G. Peters, C.W. Ward and J.H. Williams. Adaptation of the skeletal muscle calcium release mechanism to weight bearing. *FASEB J.* 9(4): A655, 1995
- Roy, S.H., E.J. Kupa, S.C. Kandarian, C.J. DeLuca. Effects of muscle fiber type and size on EMG median frequency. Proceedings of the 10th International Congress of the International Society of Electrophysiology & Kinesiology. Charleston, SC, June 21-24, 1994
- Esser, K., S. Fauteck, S. Kandarian, E. Hardeman. Myosin heavy chain protein and mRNA expression in response to spaceflight. *Med. Sci. Sports Exerc.* 26(5): S94, 1994.
- Schulte, L., J. Navarro, J. Taylor, and S. **Kandarian**. Denervation effects on sarcoplasmic reticulum calcium pump gene expression in skeletal muscle. *Med. Sci. Sports Exerc.* 25:(5) Supp. 1993.
- Kandarian, S.C. and J.A. Taylor. Skeletal muscle overload upregulates the sarcoplasmic reticulum slow calcium pump gene. *Med. Sci. Sports Exerc.* 25:(5) Supp. 1993.
- Schulte, L.M., J. Navarro, S.C. Kandarian. Sarcoplasmic reticulum calcium pump expression in skeletal muscle atrophy. *Med. Sci Sports Exerc.* 24(5): Supp. 1992.
- Kandarian, S.C. and J.H. Williams. Contractile properties of single fibers from hypertrophied skeletal muscles. *Med. Sci. Sports. Exerc.* 24(5): Supp. 1992.
- Young, J.C. and S.C. Kandarian. Skeletal muscle glucose uptake following overload-induced hypertrophy. FASEB J. 5(5): A1013, 1991.
- O'Brien, S., K. Thomas, L. Schulte, S. **Kandarian**, and J. Navarro. Regulation of dihydropyridine receptor expression by biomechanical unloading. *Biophys. J.* 59: 257a, 1991.
- Kandarian, S.C., L.M. Schulte, and R. Boushel. Enlarged interstitial space in soleus muscles by hindlimb unweighting. *Med. Sci. Sports Exec.* 23(4): S23, 1991.
- Kandarian, S.C. and T.P. White. Developing muscles differ in function with age but not in adaptive growth. *Med. Sci. Sports Exerc.* 21:2, S63, 1989.

- Kandarian, S.C. and T.P. White. Cell growth during skeletal muscle hypertrophy. *Med. Sci. Sports Exerc.*, 20:2, 76, 1988.
- Clark, K.I, S.C. Kandarian, and T.P. White. Morphological correlates of skeletal muscle hypertrophy in 12- and 27-month C57BL/6 mice. *Fed. Proc.* 2:4, 938, 1988.
- Kandarian, S.C., K.I. Clark, and T.P. White. Skeletal muscle function in adult (12mo) and aged (27mo) C57BL/6 mice following hypertrophy. *Fed Proc.* 2:4, 938, 1988.
- Daw, C.K, S.C. Kandarian, K.I. Clark, and T.P. White. Hypertrophic response of skeletal muscles to synergist ablation in 28-mo rats following 4 mo of run-training. *The Physiologist*. 31:4, A132, 1988.
- White, T.P., C.K. Daw, K.I. Clark, and S.C. **Kandarian**. Plasticity of soleus and plantaris muscles in 15- and 29-mo rats. *The Physiologist*. 31:4, A132, 1988.
- Kandarian, S.C., J.A. Opiteck and T.P. White. Contractile properties of skeletal muscle following 28 days of inactivity. Midwest Chapter of the American College of Sports Medicine annual winter meeting. Boyne Falls, MI. February 3-5 1988.
- Kandarian, S.C. and T.P. White. Deficit of specific force during onset of skeletal muscle hypertrophy. *Med. Sci. Sports Exerc.* 19:2, S16, 1987.
- White, T.P., K.I. Clark, and S.C. **Kandarian**. Growth of skeletal muscle following ablation of synergist muscle in adult (13-mo) and aged (27-mo) C57BL/6 mice. *Fed. Proc.* 46:3, 639, 1987.
- Kandarian, S.C. and T.P. White. Chronology of functional adaptation of skeletal muscle to ablation of synergist muscles. *Fed. Proc.* 46:3, 639, 1987.
- White, T.P., K.I. Clark, and S.C. **Kandarian**. Mass, fiber number, and cross-sectional area of hindlimb skeletal muscles from C57BL/6 mice at 12 and 28 months of age. *The Physiologist* 29, 151, 1986.

Journal Peer Review & Editorial Boards

- 1999-present American Journal of Physiology Cell Physiology, Editorial Board
- 1995-present Reviewer for: Physiological Genomics, American Journal of Physiology, FASEB Journal, Journal of Physiology (London), FEBS Letters, Cell, Journal of Cell Biology, BMC Musculoskeletal Disease, Am J Pathol. Human Molecular Genetics, Molecular Medicine, Molecular and Cellular Biology, PloS ONE

Peer Reviewer – Research Grants

2010-2012	NIH, Special Emphasis Panel, MOSS, 2 panels per year
2009	NIH, ARRA Challenge Grant Review, Aftab A. Ansari, June
2009	NIH, Special Emphasis Panel for cell biology study section, Noni Byrnes, October
2004-2009	NIH SMEP study section, March, June, October, R. Barlett, SRA
2005	NIH, Special Review Panel, ZRG1 MOSS D14, A. Ansari, June 3
2004	NIH, SMEP study section (Ad hoc member), R. Bartlett SRA, Nov 8-9

NIH, SMEP study section (Ad hoc member), R. Bartlett SRA, June 25-26
NIH, SMEP study section (Ad hoc member), R. Bartlett SRA, March 15-16
NIH, SMB study section (Ad hoc member), P. Wagner-SRA, June 26-27
NIH, Special Study Section, ZRG1 GRM (02), J. Pelham- SRA, October 28
NIH Ad Hoc, NIAMS, K02 awards, J. Lymangrover- SRA, June 11
Canadian Space Agency, Reviewed 2 grants in October
NASA Musculoskeletal Biology Peer Review group. March 26-27, Washington DC
National American Heart Association Fellowship Peer Review Committee
NIH, RAP study section (Ad hoc member), E. Sinnett SRA, October 1995
External Reviewer of individual grants from various agencies: Canadian Research
Council, National Science Foundation, The Wellcome Trust, Jeffress Memorial Trust
of VA, Binational Science Foundation, AFM (Association Française contre la
Myopathie)

Student Trainees

Post-doctoral students, see above for publications

Darin Van Gammeren, Ph.D. (7/2005 – 6/2008).

Andrew Judge, Ph.D. (7/2004 - 10/2006). Currently, Assistant Professor, University of Florida.

Doctoral Students (Boston University); For co-authored publications see above

Angie Cornwell, 6/08 – present, PhD program.

Chia-ling Wu, 9/07 – present, PhD program. **Awards**: Dudley Allen Sargent Award for doctoral research, Spring 2009.

Kris Muskiewicz, 5/05 – 3/08, MCBB PhD program. Finished with M.S. degree. Post-graduation: Assistant at Novartis, Cambridge, MA. **Currently:** Associate at Forma Therapeutics.

Alan Koncarevic, 9/00 – 12/07, PhD, 2008-2010, Associate Scientist at Acceleron Pharma, Cambridge, MA; 2011- present, Project Manager, University of Chicago, Office of Technology & Intellectual Property, Chicago, IL

Eric Stevenson, 9/98 – 9/04, PhD **Awards**: Dudley Allen Sargent Research Award, 2000; American College of Sports Medicine Foundation 2000; NASA pre-doctoral training grant, 2000-2003. Post-graduation: Licensing Associate, Dana-Farber Cancer Institute, Office of Research and Technology Ventures, Boston, MA. **Currently**: Senior Medical Writer at Vertex Pharmaceuticals.

Robert Hunter, 9/98 – 9/04, PhD **Awards**: Dudley Allen Sargent Research Award 2001; American College of Sports Medicine Foundation, pre-doc grant award, 2001; Science Day – Boston University, best poster award for Sargent College, 2004; American Physiological Society, Gatorade Award for doctoral research, 2004. **Currently**: Senior Scientist, Genzyme, Waltham, MA

Heather Mitchell Felton, 9/95 – 6/00. PhD **Awards**: American Physiological Society graduate student award for poster presentation, The Proctor and Gamble Professional Opportunity Award, Exercise & Environmental Physiology section, 1999. **Currently**: Department Administrator, Volen National Center for Complex Systems, Brandies University, Waltham, MA.

David Peters, 9/92 – 5/98. PhD **Awards:** Dudley Allen Sargent Research Award (intramural grant), 1995; Boston University Science Day; Award for best poster in Sargent College, 1997; American Physiological Society graduate student award for poster presentation, The Proctor and Gamble Professional Opportunity Award, Exercise & Environmental Physiology section, 1998. 1998-2000, Post-doctoral fellow, Laboratory of George Daily MD, PhD, Whitehead Institute, Cambridge, MA; 2000-2002, MJ Research, Watertown, MA; 2002-2012, Covance (Pharma), Madison, WI; 2012 to present Principal Scientist, Biogen, Cambridge, MA.

Leah Schulte, 9/88 – 5/93. ScD Awards: Foundation for Physical Therapy, pre-doctoral research grant, 1990; American College of Sports Medicine Foundation, pre-doctoral research grant, 1990;Dudley Allen Sargent Research Award, 1991; NIH training grant to P. Polgar. 1994-present: Director of OUEST, Occidental United Eastern & Southern Transfers, an American nonprofit corporation helping people in developing countries reach their maximum human potential.

Master of Science Students doing thesis in lab - for publications see above (current status given)

Takuo Yamaki	2009 - 2011
Azedah Mirbod	2009- present
Jeff Damrauer	2006-2008 MS in BU medical school, (Biology PhD program at UNC)
Xiaoli Wu	2001-2002 College of Engineering (Economics)
Amy Fishman	2000-2003 (medical doctor, Univ Florida)
Samuel Fauteck	1992-1994 (Computer Industry)
Edward Kupa	1993-1995-College of Engineering (Biotech Industry)
John Taylor	1990-1992 (practicing physician)
Liz Gomez	1990-1992, (pharmaceutical industry)
Susan O'Brien	1989-1992, (education)

Undergraduate students (spent at least 1 year working in lab)

Danielle Seto	lab assistant (2012 – present), UROP award recipient
Michael Gustin	lab assistant (2011 – present), UROP award recipient
Jamie Lim	lab assistant (2011 -2012), medical school
Michael Guss	lab assistant (2006 to 8/2008), Fall 2008, NYU medical school
Andrea Gardynski	lab assistant (2004-2006), Children's Hospital Allergy Clinic, Boston MA
Wendy Liu	lab assistant (2005)
Elizabeth Rodriguez	lab assistant (2004-2005)
Jammie Ferrara	lab assistant (2001-2003); Medical School, Fall 2004
Fidelito Gabriel:	lab assistant (1998-2001); UROP award in summer 2000; Boston University
	Dental School (Fall 2001); practicing DMD.
Melissa Yu:	lab assistant (1997-2000); Undergraduate Research Opportunity Program
	award in summer 1999; Tufts Medical School (2001). Practicing M.D.
Neelam Desai:	lab assistant (1995-1997); MS in health management systems at Duquesne
	University (1998); lab technician in microbiology, Univ Pittsburgh (2000-
	present)
Anita Rahiem	lab assistant (1995-1997); working in communication disorders field
Peter Chen:	lab assistant (1994-1996); Tufts School of Dentistry (1996); endodonics
	training at Harvard Dental School (Fall 2001). Practicing DMD.
Luiz Carmargo	lab assistant, (1992-1994); lab technician, Cornell University (1996-2001);
	Merck (2001-present)

Lauren Powers: biology honors student, thesis (1989); Tufts Veterinary School (1991); Veterinarian (1995)