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EDUCATION

Doctor of Philosophy

1995 - University of Arkansas, Fayetteville,
Kinesiology, Emphasis in Exercise Physiology,

Master of Science

1992 - University of Arkansas, Fayetteville
Kinesiology, Concentration in Exercise Management

Bachelor of Science

1991 - Centenary College, Shreveport, Louisiana
Health and Physical Education

Bachelor of Arts

1991 - Centenary College, Shreveport, Louisiana
Spanish.

PROFESSIONAL EXPERIENCE

2008 to present	Associate Dean for Research and Graduate Studies , College of Education and Health Professions University of Texas-Arlington, Arlington TX
2007 to present	Professor Department of Kinesiology University of Texas-Arlington, Arlington TX
2007 to 2009	Chair , Department of Kinesiology University of Texas-Arlington, Arlington TX
2005 to 2007	Associate Professor , Department of Anesthesiology Medical College of Wisconsin, Milwaukee WI
2000 to 2005	Assistant Professor , Department of Anesthesiology Medical College of Wisconsin, Milwaukee WI
1999 to 2001	Clinical Assistant Professor , Department of Human Kinetics University of Wisconsin-Milwaukee, Milwaukee, WI
1998 to 2000	Instructor , Department of Anesthesiology Medical College of Wisconsin, Milwaukee WI
1995 to 1998	Post-Doctoral Fellowship , Department of Anesthesiology Medical College of Wisconsin, Milwaukee WI
1993 - 1995	Graduate Teaching Assistant , Department of Kinesiology University of Arkansas, Fayetteville AR

GRANT FUNDING

NIH 1F32HL09971 NRSA, Adrenergic Control of Muscle Blood Flow During Exercise, 1998-2000, \$68,528.

AHA Grant in Aid 0060358Z Sympathetic Control of Blood Flow during Exercise, 2000-2002, \$80,000.

NIH R01 HL068945-01 Vascular Tone and Blood Pressure Control During Exercise, 2002-2006, \$900,000.

NIH R01 HL061786-05 Regulation of Blood Flow to Exercising Skeletal Muscles, 2003-2007, \$925,000. (Co Investigator)

HONORS

2003	New Investigator Award, APS Environmental & Exercise Physiology Section
2003	Fellow, Research Consortium, AAHPERD
2001	Young Investigator Travel Award, APS Cardiovascular Section
2000	Fellow, American College of Sports Medicine
1991	Outstanding Health and Physical Education Major, Centenary College
1991	GTE Academic All-American
1991	All-Conference Trans American Athletic Conference (TAAC)
1989 - 1991	All Academic Team (TAAC)
1986 - 1991	Basketball Scholarship, University of Tulsa and Centenary College
1986 - 1987	All-Academic Team Missouri Valley Conference

PUBLISHED ABSTRACTS

1. **Buckwalter** J. B., S.E. Moore, A.K. Bhunia, I.L. Fort, G.S. Denny, & J.R. Hayward. The acute response of salivary immunoglobulin A to moderate exercise in women. Medicine and Science in Sports and Exercise. 28(5):s92, 1996.
2. **Buckwalter** J. B., P.J. Mueller, & P.S. Clifford. Sympathetic vasoconstriction to active skeletal muscle during dynamic exercise. The Physiologist. 39(5):a18, 1996.
3. Mueller P.J., J.B. **Buckwalter**, & P.S. Clifford. β -adrenergic or muscarinic receptors increase but do not modulate hindlimb blood flow during moderate exercise. The Physiologist. 39(5):a18, 1996.
4. Mueller, P. J., K. J. Dormer, E. J. Zuperku, J. B. **Buckwalter**, & P. S. Clifford. NMDA or AMPA receptor activation in the rostral ventrolateral medulla produces bronchoconstriction. Society for Neuroscience Abstracts 22(2): 1601, 1996.
5. Ruble S. B., J. B. **Buckwalter**, P. J. Mueller, & P. S. Clifford. Increase in skeletal muscle blood flow at the onset of exercise is not mediated by β -adrenergic receptors. The FASEB Journal 11(3):a254, 1997.
6. **Buckwalter** J. B., P. J. Mueller, & P. S. Clifford. Reduced vascular responsiveness to α_1 -adrenergic agonist during dynamic exercise. The FASEB Journal 11(3):a254, 1997.
7. **Buckwalter** J. B., S. B. Ruble, P. J. Mueller, & P. S. Clifford. Muscarinic receptors do not mediate the rapid increase in blood flow to active skeletal muscle. Medicine and Science in Sports and Exercise. 29(5):s178, 1997.

8. Millet G. Y., M. D. Hoffman, R. B. Candau, J. B. **Buckwalter**, & P. S. Clifford. High resistance roller skis induce greater upper body demands than low resistance roller skis in ski skating. Medicine and Science in Sports and Exercise. 29(5):s8, 1997.
9. Mueller, P. J., E. J. Zuperku, J. B. **Buckwalter**, & P. S. Clifford. Microinjection of glutamate receptor antagonists in the rostral ventrolateral medulla abolishes hypercapnic-induced airway constriction. Society for Neuroscience Abstracts 23(1):434, 1997.
10. Ruble S. B., J. B. **Buckwalter**, & P. S. Clifford. Autonomic influence on skeletal muscle blood flow at the onset of dynamic exercise. The FASEB Journal 12(5):a691, 1998.
11. **Buckwalter** J. B., & P. S. Clifford (1998). Reduced vascular responsiveness to α_2 -adrenergic agonist during dynamic exercise.. The FASEB Journal 12(5):a691, 1998.
12. Clifford P. S., K. P. O'Hagan, K. A. Skogg, J. B. **Buckwalter** & P. J. Mueller. *In Vivo* verification of renal denervation. The FASEB Journal 12(5):a690, 1998.
13. **Buckwalter** J. B. & P. S. Clifford. α_2 -adrenergic vasoconstriction in active skeletal muscles during dynamic exercise. Medicine and Science in Sports and Exercise. 30(5):s213, 1998.
14. Mueller P. J., K. P. O'Hagan, K. A. Skogg, J. B. **Buckwalter**, & P. S. Clifford. Renal nerves are responsible for renal vasoconstriction at the onset of dynamic exercise in rabbits. Medicine and Science in Sports and Exercise. 30(5):s212, 1998.
15. **Buckwalter** J. B. & P. S. Clifford. Sympathetic vasoconstriction during exercise. Annals of Biomedical Engineering. 26(1):s89, 1998.
16. Valic Z., J. S. Naik, J. B. **Buckwalter**, & P. S. Clifford. Parasympathetic innervation of tracheal smooth muscle. The FASEB Journal 13(5):a822, 1999.
17. **Buckwalter** J. B., Z. Valic, J. S. Naik, & P. S. Clifford. Reduced vascular responsiveness to adrenergic agonists during ischemia. The FASEB Journal 13(5):a1056, 1999.
18. Naik J. S., Z. Valic, J. B. **Buckwalter**, & P. S. Clifford. Acetylcholine spillover from motor nerve does not increase muscle blood flow. The FASEB Journal 13(5):a1056, 1999.
19. Clifford P. S., J. S. Naik, Z. Valic, & J. B. **Buckwalter**. Do K_{ATP} channels mediate vasodilation in exercising skeletal muscle? The FASEB Journal 13(5):a1056, 1999.
20. **Buckwalter** J. B., J. S. Naik, Z. Valic, & P. S. Clifford. ATP sensitive potassium channels do not mediate the initial increase in blood flow to skeletal muscle at the onset of exercise. Medicine and Science in Sports and Exercise. 31(5):s332, 1999.
21. Naik J. S., Z. Valic, J. B. **Buckwalter**, & P. S. Clifford. Evidence for rapid metabolic vasodilation following a brief tetanic contraction. Medicine and Science in Sports and Exercise. 31(5):s353, 1999.
22. Naik J. S., J. B. **Buckwalter**, Z. Valic, & P. S. Clifford. Exercise hyperemia is attenuated by prior elevation in blood flow. Circulation. 100(18):I350, 1999.
23. **Buckwalter** J. B., Z. Valic, J. S. Naik, & P. S. Clifford. Does sympathetic activation of K_{ATP} channels mediate vasodilation in exercising skeletal muscle. The FASEB Journal 14(4):a380, 2000.
24. Ruble S. B., J. B. **Buckwalter**, Z. Valic, & P. S. Clifford. Reduced vascular effect of ganglionic stimulation during dynamic exercise. The FASEB Journal 14(4):a381, 2000.
25. Valic Z., E. H. Vidruk, Ruble S. B., J. B. **Buckwalter**, & P. S. Clifford. Bronchoconstrictor stimuli increase pararecurrent efferent nerve activity. The FASEB Journal 14(4):a391, 2000.
26. Shepanski M. A., M. D. Hoffman, S. B. Ruble, Z. Valic, J. B. **Buckwalter**, & P. S. Clifford. Effect of exercise duration on exercise analgesia. Medicine and Science in Sports and Exercise. 32(5):s70, 2000.
27. Ruble, S. B., M. A. Shepanski, M. D. Hoffman, Z. Valic, J. B. **Buckwalter**, & P. S. Clifford. Does exercise intensity influence pain perception? Medicine and Science in Sports and Exercise. 32(5):s71, 2000.
28. Valic, Z., S. B. Ruble, J. B. **Buckwalter**, & P. S. Clifford. Elevation in flow reduces contraction-induced hyperemia. Medicine and Science in Sports and Exercise. 32(5):s249, 2000.

29. Valic, Z., S. B. Ruble, J.B. **Buckwalter**, & P.S. Clifford. Influence of the muscle pump on blood flow response to contraction. The Physiologist. 43(4):343, 2000. Ruble, S. B., Z. Valic., M. E. Tschakovsky, J.B. **Buckwalter**, & P.S. Clifford. Exercise attenuates skeletal muscle vascular responsiveness. The Physiologist. 43(4):343, 2000.
30. **Buckwalter**, J. B., V.C. Curtis, S.B. Ruble, M.A. Shepanski, Z. Valic, S.T. Hayworth, C.A. Dawson, & P. S. Clifford. Nitric oxide is essential for endogenous vascular remodeling in ischemic skeletal muscle. The FASEB Journal 15(4):a116, 2001.
31. Curtis, V.C., J.B. **Buckwalter**, R.L. Coon, Z. Valic, J.J. Hamann, & P. S. Clifford. Laser revascularization of ischemic skeletal muscle. The FASEB Journal 15(4):a116, 2001.
32. Hamann, J. J., Z. Valic, J. B. **Buckwalter**, & P. S. Clifford. Sympathetic restraint of blood flow at the onset of dynamic exercise. The FASEB Journal 15(5):a1148, 2001.
33. Shepanski, M.A., M. D. Hoffman, S. B. Ruble, Z. Valic, J. B. **Buckwalter** & P. S. Clifford. Habitual exercise is associated with exercise-induced mood enhancement. Medicine and Science in Sports and Exercise. 33(5):s168, 2001.
34. Hamann, J. J., Z. Valic, J. B. **Buckwalter**, J. S. Naik & P. S. Clifford. Muscle pump does not enhance blood flow in exercising skeletal muscle. The FASEB Journal 16(5):a763, 2002.
35. Valic, Z., J. A. Madden, V. C. Curtis, J. B. **Buckwalter**, J. J. Hamann & P. S. Clifford. Does flow mediated vasodilation contribute to exercise hyperemia. The FASEB Journal 16(5):a766, 2002.
36. **Buckwalter**, J.B. Is there attenuation of non-adrenergic vasoconstriction in active skeletal muscle? Medicine and Science in Sports and Exercise. 35(5):s1, 2003.
37. Hamann, J.J., J.B. **Buckwalter**, P.S. Clifford, and J.K. Shoemaker. Blood flow response to a single contraction Medicine and Science in Sports and Exercise. 35(5):s42, 2003.
38. Taylor, J.C., J.B. **Buckwalter**, J.J. Hamann, and P.S. Clifford. Is there purinergic vasoconstriction in exercising skeletal muscle? The FASEB Journal 17(4):a21, 2003.
39. **Buckwalter**, J.B, J.J. Hamann and P.S. Clifford. P2X purinergic receptor responsiveness in exercising skeletal muscle. The FASEB Journal 17(4):a21, 2003.
40. Hamann, J.J., J.B. **Buckwalter** and P.S. Clifford. Nitric oxide attenuates purinergic vasoconstriction in exercising skeletal muscle. The FASEB Journal 17(4):a21, 2003.
41. Kluess, H.K., J.B. **Buckwalter**, J.J. Hamann and P.S. Clifford. Acidosis attenuates P2X purinergic vasoconstriction in skeletal muscle arteries. The FASEB Journal 18(4):a285, 2004.
42. **Buckwalter**, J.B., J.J. Hamann and P.S. Clifford. Role for NPY in the regulation of skeletal muscle blood flow during exercise? The FASEB Journal 18(5):a1214, 2004.
43. **Buckwalter**, J.B., J.J. Hamann H.A. Kluess and P.S. Clifford. NPY Y₁ responsiveness in exercising skeletal muscle. The FASEB Journal 18(5):a1214, 2004.
44. Hamann, J.J., J.B. **Buckwalter** and P.S. Clifford. Vasodilation is obligatory for contraction-induced hyperemia. The FASEB Journal 18(5):a1215, 2004.
45. Taylor, J.C., J.B. **Buckwalter**, J.J. Hamann and P.S. Clifford. Role of nitric oxide in exercise sympatholysis. Medicine and Science in Sports and Exercise. 36(5):s225, 2004.
46. Hamann, J.J., H.A. Kluess, J.B. **Buckwalter**, and P.S. Clifford. Blood flow response to muscle contractions not determined by work performed. Medicine and Science in Sports and Exercise. 36(5):s225, 2004.
47. Hamann, J.J., J.B. **Buckwalter**, Z. Valic and P.S. Clifford. Role of vascular ATP-sensitive potassium channels in exercise hyperemia. The Physiologist. 47(4):227, 2004.
48. DeLorey, D.S., J.B. **Buckwalter**, J.J. Hamann, H.A. Kluess and P.S. Clifford. Alpha 1-adrenergic restraint of blood flow during prolonged exercise. The FASEB Journal 19(4):a1244, 2005.
49. Kluess, H.A., J.B. **Buckwalter**, J.J. Hamann, D.S. DeLorey and P.S. Clifford. Frequency dependence of adrenergic and purinergic vasoconstriction in skeletal muscle arteries. The FASEB Journal 19(4):a1622, 2005.

50. Hamann, J.J., D.S. DeLorey, J.B. **Buckwalter**, H.A. Kluess, and P.S. Clifford. Is Potassium responsible for contraction-induced hyperemia? Medicine and Science in Sports and Exercise. 37(5):s222, 2005.
51. DeLorey, D.S., J.B. **Buckwalter**, J.J. Hamann, H.A. Kluess, and P.S. Clifford. Sympathetic restraint of blood flow during prolonged exercise. Medicine and Science in Sports and Exercise. 37(5):s223, 2005.
52. DeLorey, D.S., Z. Valic, J.J. Hamann, H.A. Kluess, P.S. Clifford and J.B. **Buckwalter**. Alpha adrenergic receptor responsiveness is preserved during prolonged exercise. Canadian Journal of Applied Physiology. 30(5): 2005.
53. Jasperse, J.L., H.A. Kluess, J.J. Hamann, J.B. **Buckwalter** and P.S. Clifford. A novel hypothesis for exercise hyperemia: Mechanical compression. Circulation, 112(17):II-211, 2005.
54. DeLorey, D.S., J.J. Hamann, Z. Valic, H.A. Kluess, P.S. Clifford and J.B. **Buckwalter**. Endogenous neurotransmitter release and sympathetic vasoconstriction during prolonged exercise. The FASEB Journal 20(5):a1400, 2006.
55. Valic, Z., J.J. Hamann, D.S. DeLorey, H.A. Kluess, J.B. **Buckwalter**, and P.S. Clifford. Is the blood flow response to contraction attributable to potassium? The FASEB Journal 20(5):a1401, 2006.
56. Kluess, H.A., J.B. **Buckwalter**, J.J. Hamann, D.S. DeLorey, and P.S. Clifford. Heat attenuates vasoconstriction produced by release of endogenous neurotransmitter. The FASEB Journal 20(5):a1426, 2006.
57. DeLorey, D.S., J.B. **Buckwalter**, M. Anton, H.A. Kluess, and P.S. Clifford. Isoflurane abolishes purinergic receptor mediated restraint of skeletal muscle blood flow. The FASEB Journal 21(6):a886, 2007.
58. Kluess, H.A., D.S., J.B. **Buckwalter**, D.S. DeLorey, M. Anton, and P.S. Clifford. Age-related decline in femoral artery vasoconstriction to sympathetic stimulation. The FASEB Journal 21(6):a887, 2007.
59. Kluess, H.A., J.B. **Buckwalter**, D.S. DeLorey and P.S. Clifford. Age-related changes in vasoconstrictor response to heat in skeletal muscle arteries. The FASEB Journal 22(6): 745.3, 2008.
60. Eisenhauer, J.A., H.A. Kluess, M.M. Anton, D.S. DeLorey, J.B. **Buckwalter**, P.S. Clifford. Gender differences in heat-induced attenuation of vasoconstriction. The FASEB Journal 22(6): 745.2, 2008.
61. DeLorey, D.S., J.B. **Buckwalter**, S. Middelstadt, H.A. Kluess, P.S. Clifford. Adrenergic receptor mediated tonic vasoconstriction is not increased in skeletal muscle of older beagles. The FASEB Journal 22(6): 1211.4, 2008.
62. DeLorey, D.S., J.B. **Buckwalter**, S. Middelstadt, M.M. Anton, H.A. Kluess, J.D. Tune, P.S. Clifford. Responsiveness and density of alpha-adrenergic receptors in skeletal muscle of young and old beagles. The FASEB Journal 22(6): 1211.6, 2008.
63. DeLorey, D.S., J.B. **Buckwalter**, S. Middelstadt, H.A. Kluess, P.S. Clifford. Non-adrenergic receptor mediated tonic vasoconstriction in skeletal muscle does not change with age. The FASEB Journal 23(6): 787.11, 2009.

PUBLISHED JOURNAL ARTICLES

1. **Buckwalter** J. B., P. J. Mueller, & P. S. Clifford. Sympathetic vasoconstriction to active skeletal muscles during dynamic exercise. Journal of Applied Physiology. 83(5):1575-1580, 1997.
2. **Buckwalter** J. B., P. J. Mueller, & P. S. Clifford. Autonomic control of skeletal muscle vasodilation during exercise. Journal of Applied Physiology. 83(6):2037-2042, 1997.

3. Millet G. Y., M. D. Hoffman, R. B. Candau, J. B. **Buckwalter**, & P. S. Clifford. Effect of rolling resistance on poling forces and metabolic demands of roller skiing. Medicine and Science in Sports and Exercise. 30(5):755-762, 1998.
4. Millet G. Y., M. D. Hoffman, R. B. Candau, J. B. **Buckwalter**, & P. S. Clifford. Cycle rate variations in roller ski skating: effects on oxygen uptake and poling forces. International Journal of Sports Medicine. 19:521-525, 1998.
5. Mueller P. J., K. P. O'Hagan, K. A. Skogg, J. B. **Buckwalter**, & P. S. Clifford. Renal hemodynamic responses to dynamic exercise in rabbits. Journal of Applied Physiology. 85(5):1605-1614, 1998.
6. **Buckwalter** J. B., S. B. Ruble, P. J. Mueller, & P. S. Clifford. Skeletal muscle vasodilation at the onset of exercise. Journal of Applied Physiology. 85(5):1649-1654, 1998.
7. **Buckwalter** J. B., P. J. Mueller, & P. S. Clifford. α_1 -adrenergic receptor responsiveness in skeletal muscle during dynamic exercise. Journal of Applied Physiology. 85(6):2277-2283, 1998.
8. **Buckwalter** J. B. & P. S. Clifford. α -adrenergic vasoconstriction in active skeletal muscles during dynamic exercise. American Journal of Physiology: Heart and Circulatory Physiology. 277:H33-H39, 1999.
9. Naik, J. S., Z. Valic, J. B. **Buckwalter** & P. S. Clifford. Evidence for rapid metabolic vasodilation in response to brief tetanic muscle contraction. Journal of Applied Physiology. 87(5):1741-1746, 1999.
10. **Buckwalter** J. B. & P. S. Clifford. Autonomic control of skeletal muscle blood flow at the onset of dynamic exercise. American Journal of Physiology: Heart and Circulatory Physiology. 277:H1872-H1877, 1999.
11. Clifford P. S., Z. Valic, J. S. Naik & J. B. **Buckwalter**. Effect of vecuronium on the release of acetylcholine after nerve stimulation-reply. Journal of Applied Physiology. 89(3):1250-1251, 2000.
12. Ruble S. B., Z. Valic., J. B. **Buckwalter** & P. S. Clifford. Dynamic exercise attenuates sympathetic responsiveness of canine vascular smooth muscle. Journal of Applied Physiology. 89(6):2294-2299, 2000.
13. Valic Z., E. H. Vidruk, S. B. Ruble, J. B. **Buckwalter** & P. S. Clifford. Parasympathetic innervation of canine tracheal smooth muscle. Journal of Applied Physiology. 90(1):23-28, 2001.
14. **Buckwalter** J. B., J. S. Naik, Z. Valic & P. S. Clifford. Exercise attenuates α -adrenergic receptor responsiveness in skeletal muscle vasculature. Journal of Applied Physiology. 90(1):172-178, 2001.
15. **Buckwalter** J. B., & P. S. Clifford. The paradox of sympathetic vasoconstriction in exercising skeletal muscle. Exercise and Sport Sciences Reviews. 29(4):159-163, 2001.
16. Hamann, J. J., J. B. **Buckwalter**, Z. Valic & P.S. Clifford. Sympathetic restraint of muscle blood flow at the onset of dynamic exercise. Journal of Applied Physiology. 92:2452-2456, 2002.
17. Ruble, S. B., Z. Valic, J. B. **Buckwalter**, M. E. Tschakovsky & P. S. Clifford. Attenuated vascular responsiveness to norepinephrine release during dynamic exercise in dogs. Journal of Physiology (London). 541:637-644, 2002.
18. Valic, Z., J. S. Naik, S. B. Ruble, J. B. **Buckwalter** & P. S. Clifford. Elevation in resting blood flow attenuates exercise hyperemia. Journal of Applied Physiology. 93:134-140, 2002.
19. Clifford, P. S., J. B. **Buckwalter** & J. J. Hamann. Attenuated sympathetic vasoconstriction in contracting muscles: just say NO. Journal of Physiology (London). 504.1:2, 2002.
20. Hamann, J. J., Z. Valic, J. B. **Buckwalter**, J. S. Naik & P. S. Clifford. Muscle pump does not enhance blood flow in exercising skeletal muscle. Journal of Applied Physiology. 94:6-10, 2003.
21. **Buckwalter**, J. B., V. C. Curtis, Z. Valic, S. B. Ruble, & P. S. Clifford. Endogenous vascular remodeling in ischemic skeletal muscle: a role for nitric oxide. Journal of Applied Physiology. 94:935-940, 2003.

22. **Buckwalter**, J. B., J. J. Hamann, & P. S. Clifford. Vasoconstriction in active skeletal muscles: a potential role for P2X purinergic receptors? Journal of Applied Physiology. 95:953-959, 2003.
23. **Buckwalter**, J. B., V. C. Curtis, S. B. Ruble, Z. Valic, J. J. Hamann, R. L. Coon, M. Mirhoseini & P. S. Clifford. Laser revascularization of ischemic skeletal muscle. Journal of Surgical Research. 115(2):257-264, 2003.
24. Hoffman, M. D., M. A. Shepanski, S. B. Ruble, Z. Valic, J. B. **Buckwalter** & P. S. Clifford. Intensity and duration threshold for aerobic exercise-induced analgesia to pressure pain. Archives of Physical Medicine and Rehabilitation. 85(7):1183-1187, 2004.
25. **Buckwalter**, J. B., J. C. Taylor, J. J. Hamann, & P. S. Clifford. Do P2X purinergic receptors regulate skeletal muscle blood flow during exercise? American Journal of Physiology: Heart and Circulatory Physiology. 286:H633-H639, 2004.
26. Hamann, J. J., J. B. **Buckwalter**, P. S. Clifford, & J. K. Shoemaker. Blood flow response to a single muscle contraction. Journal of Applied Physiology. 96:2146-2152, 2004.
27. **Buckwalter**, J. B., J. C. Taylor, J. J. Hamann, & P. S. Clifford. Role of nitric oxide in exercise sympatholysis. Journal of Applied Physiology. 97:417-423, 2004.
28. **Buckwalter**, J. B., J. J. Hamann, H. A. Kluess & P. S. Clifford. Vasoconstriction in exercising skeletal muscles: a potential role for neuropeptide Y? American Journal of Physiology: Heart and Circulatory Physiology. 287:H144-H149, 2004.
29. Hamann, J. J., J. B. **Buckwalter**, & P. S. Clifford. Vasodilation is obligatory for contraction-induced hyperemia in canine skeletal muscle. Journal of Physiology (London). 557:1013-1020, 2004.
30. Mueller, P. J., J. B. **Buckwalter**, & P. S. Clifford. Tracheal tone and the role of ionotropic glutamate receptors in the nucleus ambiguus. Brain Research. 1021(1):54-65, 2004.
31. Kluess, H. A., J. B. **Buckwalter**, J. J. Hamann, & P. S. Clifford. Acidosis attenuates P2X purinergic vasoconstriction in skeletal muscle arteries. American Journal of Physiology: Heart and Circulatory Physiology. 288(1):H129-132, 2005.
32. Valic, Z., J. B. **Buckwalter**, & P. S. Clifford. Muscle blood flow response to contraction: influence of venous pressure. Journal of Applied Physiology. 98:72-76, 2005.
33. **Buckwalter**, J. B., J. C. Taylor, J. J. Hamann & P. S. Clifford. Role of Nitric Oxide and alpha-adrenergic receptor responsiveness in exercising skeletal muscle-reply. Journal of Applied Physiology. 98:1584-1585, 2005.
34. Ruble, S. B., M. D. Hoffman, M. D., M. A. Shepanski, Z. Valic, J. B. **Buckwalter** & P. S. Clifford. Thermal pain perception after aerobic exercise. Archives of Physical Medicine and Rehabilitation. 86:1019-1023, 2005.
35. Hamann, J. J., H. A. Kluess, J. B. **Buckwalter** & P. S. Clifford. Blood flow response to muscle contractions is more closely related to metabolic rate than contractile work. Journal of Applied Physiology. 98:2096-2100, 2005.
36. Kluess, H. A., J. B. **Buckwalter**, J. J. Hamann, & P. S. Clifford. Elevated temperature decreases sensitivity of P2X purinergic receptors in skeletal muscle arteries. Journal of Applied Physiology. 99:995-998, 2005..
37. **Buckwalter**, J. B., J. J. Hamann & P. S. Clifford. Neuropeptide Y1 receptor vasoconstriction in exercising canine skeletal muscles. Journal of Applied Physiology. 99:2115-2120, 2005.
38. Sheriff, D. P. S. Clifford, J. J. Hamann, Z. Valic & J. B. **Buckwalter**. Point: The muscle pump raises muscle blood flow during locomotion. Journal of Applied Physiology. 99:371-375, 2005.
39. DeLorey, D.S., J.J. Hamann, H.A. Kluess, P.S. Clifford and J.B. **Buckwalter**. Alpha-adrenergic receptor-mediated restraint of skeletal muscle blood flow during prolonged exercise. Journal of Applied Physiology. 100:1563-1568, 2006.
40. Clifford, P.S., H.A. Kluess, J.J. Hamann, J.B. **Buckwalter** and J.L. Jasperse. Mechanical compression elicits vasodilation in skeletal muscle vasculature. Journal of Physiology(London), 572:561-567, 2006.

41. Kluess, H.A., J.B. **Buckwalter**, J.J. Hamann, DeLorey, D.S. and P.S. Clifford. Frequency and pattern dependence of adrenergic and purinergic vasoconstriction in skeletal muscle arteries. Experimental Physiology. 91:1051-1058, 2007.
42. DeLorey, D.S., J.J. Hamann, Z. Valic, H.A. Kluess, P.S. Clifford and J.B. **Buckwalter**. Alpha-adrenergic receptor responsiveness is preserved during prolonged exercise. American Journal of Physiology: Heart and Circulatory Physiology. 292:H392-H398, 2007.