

Curriculum Vita

(updated Sept. 2020)

Name: David S. Criswell

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Education:

Institution / Location	Degree	Year	Field
Univ. of Texas Med. School / Houston, TX	[Post-doc]	1994- 1997	Molecular Biology/Skeletal muscle adaptation to disuse.
University of Florida / Gainesville, FL	Ph.D.	1994	Health & Human Performance (Exercise Physiology)
University of Florida / Gainesville, FL	M.S.	1990	Exercise Physiology
University of Mississippi / Oxford, MS	B.S.	1988	Biology (<i>magna cum laude</i> graduate)

Research and Professional Experience:

August 2014 – present

Professor and Chair

University of Texas at Tyler

Department of Health & Kinesiology

Tyler, Texas 75799

July 2006 – June 2014

Associate Professor

University of Florida

Department of Applied Physiology & Kinesiology

Gainesville, Florida 32611

August 2001 – June 2006

Assistant Professor

University of Florida

Department of Applied Physiology & Kinesiology

Gainesville, Florida 32611

September 1997 – August 2001

Assistant Professor

Texas Woman's University

Department of Kinesiology

Denton, Texas 76204

September 1994 – August 1997

Post-Doctoral Research Fellow (Supervisor: Frank W. Booth, Ph.D.)

Department of Integrative Biology

University of Texas Medical School, Houston

Houston, Texas 77030

Research and Professional Experience (con't):

August 1995 – May 1997 (*concurrent with UT-Houston position*)

Biology Instructor – Part-time adjunct faculty

Houston Community College System – Southwest College

Department of Science and Technology

August 1989 – June 1993

Laboratory Instructor (Supervisor: Scott K. Powers, Ph.D., Ed.D.)

Applied Physiology Laboratory

Department of Exercise and Sport Sciences

University of Florida

Gainesville, Florida 32611

Professional Organizations:

American College of Sports Medicine, Fellow

American Physiological Society

Professional Service:

Editorial Board Member, *Journal of American Physiology: Reg. Integr. Comp. Physiol.*

Ad Hoc Member of NIH Study Sections

Special Emphasis Panel ZRG1, March 2011

Skeletal Muscle and Exercise Physiology (SMEP), October 2013

Member of NASA Grant Review Panels

NASA HERO Musculoskeletal Panel (March 2015)

Space Biology Integrative Physiology (June 2018, March 2019)

Reviewer for the following journals:

American Journal of Physiology: Cell Physiology

American Journal of Physiology: Reg. Integr. Comp. Physiol.

Journal of Applied Physiology

International Journal of Sports Medicine

Medicine and Science in Sports and Exercise

Muscle & Nerve

Nitric Oxide

Cellular and Molecular Life Sciences

Pharmacological Research

Antioxidant and Redox Signaling

European Journal of Sports Sciences

Direction of Graduate Students (chaired or co-chaired committee):

Master's Students	Year	Thesis Title (Institution)
Martha A. Cottingham	1999	Effect of oral contraceptives on peripheral blood flow in untrained women at rest and during exercise. (Texas Woman's University)
Matthew Samuels	2000	Effect of a moderate-fat diet on endurance time-to-exhaustion and physiological adaptations in male Sprague-Dawley rats. (Texas Woman's University; <i>co-chaired with Nance DiMarco</i>)
K. Leigh Greathouse	2001	Effects of a high monounsaturated fat diet and moderate exercise on skeletal muscle lipid peroxidation and antioxidant capacity in male rats. (Texas Woman's University)
Lori W. Smith	2001	The role of nitric oxide synthase in skeletal muscle adaptation to chronic overload. (Texas Woman's University)

Kathryn M. Henry	2001	Effects of exercise training on the cytokine response to endotoxin in the plasma and heart. (Texas Woman's University; <i>co-chaired with Bruce Grossie</i>)
Jenna L. Betters	2003	Trolox and mechanical ventilation-induced diaphragmatic dysfunction. (University of Florida)
Jeff E. Sellman	2005	Nitric oxide affects gene expression in overloaded skeletal muscle. (University of Florida)
Dana L. Brown	2008	Nitric oxide synthase activity mediates activation of AMP-associated protein kinase in isolated mouse skeletal muscle. (University of Florida)
Elizabeth H. Zeanah	2009	Effects of nitric oxide on calcium-induced skeletal muscle atrophy. (University of Florida)
Kevin J. Miller	2013	Isosorbide dinitrate and L-arginine: fountain of youth for aged muscle regeneration? (University of Florida)
Doctoral Students	Year	Dissertation Title (Institution)
Jenna L. Betters	2007	Reduced sensitivity to nitric oxide limits satellite cell activity on cultured myofibers from aged mice. (UF)
Jodi H.D. Long	2007	Glucocorticoid-induced myopathy is mediated by impaired nitric oxide synthesis. (UF)
Jason A. Drenning	2008	Nitric oxide facilitates NFAT activity through Akt-induced GSK-3 beta phosphorylation. (UF)
Quinlyn A. Soltow	2008	Biphasic effects of nitric oxide on skeletal muscle myotube atrophy. (UF)
Vitor A. Lira	2008	Nitric oxide-dependent regulation of AMPK and PGC-1 α in skeletal muscle. (UF)

Research Funding:

Agency	Title	Total Budget	Dates	Role
<i>Completed Grants</i>				
NIH – R01	Mechanisms of exercise protection in ventilator-induced diaphragm dysfunction.	\$2,173,530	2013-2018	Co-I (10%)
NIH – R03	Mechanisms of reduced regenerative potential in aging skeletal muscle.	\$146,000	2012-2014	PI
NIH – R01	Mechanical ventilation and diaphragmatic oxidant injury. (<i>S. Powers, PI</i>)	\$1,636,875	2005-2010	Co-I
American Heart Assoc.	Phenotype coordination in active skeletal muscle cells.	\$260,000	2005-2008	PI
American College of Sports Medicine	Nitric oxide and the regulation of GLUT4 and UCP3 in muscle. (<i>Doctoral Dissertation Grant awarded to Vitor Lira</i>)	\$5,000	2006-2007	Co-PI
NIH – R01	Exercise, antioxidants, and I-R injury. (<i>S. Powers, PI</i>)	\$1,317,512	2003-2005	Co-I
American Lung Assoc.	Aging, oxidant stress, and mechanical ventilation-induced diaphragmatic contractile dysfunction.	\$70,000	2002-2004	PI
HHP Opportunity Fund (College)	Mechanisms of oxidant-induced nuclear apoptosis in adult skeletal myofibers.	\$5,000	2005	PI
UF Opp. Fund	Nitric oxide and stretch induced myotube growth.	\$85,000	2004	PI

Muscular Dystrophy Association	Oxidative Stress and Inflammatory Cell Signaling in the Diaphragm and Limb Muscles of mdx Mice. (J. Lawler, PI)	\$75,000	2003-2004	Co-I
TWU Research Enhancement Program	The role of nitric oxide as a potential mediator of the overload-induced hypertrophy response in the rat plantaris.	\$6,000	2000	PI
TWU Research Enhancement Program	Effects of L-arginine supplementation on muscle power and blood flow in female college athletes.	\$6,000	1999	PI

National and International Research Presentations:

1. Redox control of contraction-induced glucose uptake into skeletal muscle. (Symposium Lecture) Annual Meeting of the *American College of Sports Medicine*, San Francisco, CA, June 2, 2012.
2. Does nitric oxide regulate both skeletal muscle hypertrophy and atrophy? (Symposium Lecture) *Victorian Muscle and Exercise Group*, Melbourne, Australia, June 17, 2011.
3. NO regulation of AMPK signaling in muscle. (Symposium Lecture) Annual Meeting of the *American College of Sports Medicine*, Baltimore, MD, June 3, 2010.
4. Redox control of skeletal muscle satellite cells (Symposium Lecture) Annual Meeting of the *American College of Sports Medicine*, Seattle, WA, May 27, 2009.
5. Nitric oxide Synthase Expression is Required for Akt Signaling in Mouse Skeletal Muscle. (Poster) *American Heart Association National Research Symposium*, New Orleans, LA, November 2008.
6. Prednisolone-induced dysfunction of skeletal muscle satellite cells is reversed by nitric oxide. (Poster) 54th Annual Meeting of the *American College of Sports Medicine*, New Orleans, LA, June 2007.
7. Nitric oxide is a Master Controller of Skeletal Muscle Phenotype. (Symposium Lecture) *Southeastern American College of Sports Medicine Annual Meeting*, Charlotte, NC, Feb. 10, 2007.
8. NOS inhibition prevents AMPK induction of GLUT4 mRNA in L6 myotubes. (Poster) *Experimental Biology Meeting*, San Francisco, CA, April 3, 2006.
9. Nitric oxide and control of skeletal muscle gene expression in response to contractile activity. (Symposium Lecture) 52nd Annual Meeting of the *American College of Sports Medicine*, Nashville, TN, June 2005.
10. The Role of Skeletal Muscle in Metabolic Control. (Invited Seminar) *International Symposium on Physical Activity*, Rio de Janeiro, Brazil, November 5, 2004.
11. The Regulation of Muscle Hypertrophy by Training Load. (Invited Seminar) *International Symposium on Physical Activity*, Rio de Janeiro, Brazil, November 5, 2004.
12. Skeletal Muscle Overload is Associated with Nitric Oxide-Dependent Induction of Cyclooxygenase-2 mRNA. (Poster) *Integrative Biology of Exercise, APS Intersociety Meeting*, Austin, TX, October 9, 2004.
13. L-NAME Prevents Stretch-Induced Increases in Myotube Size and Nuclear Number. (Free Communication-Slide) 51st Annual Meeting of the *American College of Sports Medicine*, Indianapolis, IN, June 2004.
14. Nitric oxide synthase activity is necessary for induction of IGF-1 mRNA in overloaded skeletal muscle. (Free Communication-Slide) 50th Annual Meeting of the *American College of Sports Medicine*, San Francisco, CA, May 28-June 1, 2003.
15. Role of nitric oxide synthase in skeletal muscle adaptation to chronic overload. (Poster) 48th Annual Meeting of the *American College of Sports Medicine*, Baltimore, MD, May 29-June 2, 2001.
16. Effect of oral contraceptives on peripheral blood flow in untrained women at rest and during exercise. (Poster) 46th Annual Meeting of the *American College of Sports Medicine*, Seattle, WA, June 2–5, 1999.

17. The Nerve-Responsive Troponin-I Slow Promoter does not Respond to Unloading. (Poster) 45th Annual Meeting of the *American College of Sports Medicine*, Orlando, FL, June 3 –6, 1998.
18. Over-expression of IGF-I in Skeletal Muscle Does Not Prevent Unloading-Induced Atrophy. (Poster). 44th Annual Meeting of the *American College of Sports Medicine*, Denver, CO, May 28 – 31, 1997.
19. A Model for the Study of Skeletal Muscle Gene Regulation in the Mouse. (Poster). 43rd Annual Meeting of the *American College of Sports Medicine*, Cincinnati, OH, May 29-June 1, 1996.
20. Regulation of Contractile Protein Gene Expression in Unloaded Mouse Skeletal Muscle. (Invited Symposium). 17th Annual Meeting of the *International Society for Gravitational Physiology*, Warsaw, Poland, April 14-19, 1996.
21. Mechanisms of specific force deficit in the senescent rat diaphragm. (Poster). 42nd Annual Meeting of the *American College of Sports Medicine*, Minneapolis, MN, May 31-June 4, 1995.
22. Diaphragmatic resistance to hyperthyroidism. (Poster). 41st Annual Meeting of the *American College of Sports Medicine*, Indianapolis, IN, June 1-4, 1994.
23. Morphological and phenotypic alterations in the soleus muscle of adult rats following clenbuterol treatment. (Poster). Annual meeting of the *Southeast Chapter of the American College of Sports Medicine*, Greensboro, NC, January 19-23, 1994.
24. Effects of elastase-induced emphysema on the metabolic capacity of canine respiratory muscles. (Poster) *Federation of American Societies for Experimental Biology* Annual Meeting, New Orleans, LA, March 28 - April 1, 1993.
25. Biochemical verification of quantitative histochemical analysis of succinate dehydrogenase activity in skeletal muscle fibers. (Slide). 39th Annual Meeting of the *American College of Sports Medicine*, Dallas, TX, May 27 - 30, 1992.
26. Cellular oxidative and antioxidant response in skeletal muscle to interval and continuous exercise training. (Poster). 38th Annual Meeting of the *American College of Sports Medicine*, Orlando, FL, May 29 - June 1, 1991.
27. Influence of a carbohydrate-electrolyte beverage on blood homeostasis during football. (Poster) *American Physiological Society* Specialty Meeting, Orlando, FL, October 6-10, 1990.

Book Chapter:

Criswell, D.S. Human development and aging. In *ACSM's Health & Fitness Certification Review*. J.L. Roitman, K.W. Bibi, and W.R. Thompson (Eds.). Lippincott, Williams and Wilkins, Philadelphia, 2001.

Refereed Publications:

(Sept. 2020: H-index = 32; Average citations per item = 44.7)

1. Powers, S., J. Lawler, **D. Criswell**, S. Dodd, S. Grinton, G. Bagby, and H. Silverman. Endurance-training-induced cellular adaptations in respiratory muscles. *J. Appl. Physiol.* 68: 2114-2118, 1990.
2. Powers, S., J. Lawler, **D. Criswell**, H. Silverman, H. Forster, S. Grinton, and D. Harkins. Regional metabolic differences in the rat diaphragm. *J. Appl. Physiol.* 69: 648-650, 1990.
3. Powers, S., J. Lawler, **D. Criswell**, S. Dodd, and H. Silverman. Age-related changes in enzyme activity in the rat diaphragm. *Respiration Physiol.* 83: 1-10, 1991.
4. **Criswell, D.**, S. Powers, J. Lawler, J. Tew, S. Dodd, Y. Iryiboz, R. Tulley, and K. Wheeler. Influence of a carbohydrate-electrolyte beverage on performance and blood homeostasis during recovery from football. *Int. J. Sport Nutr.* 1: 178-191, 1991.
5. Powers, S., S. Dodd, **D. Criswell**, J. Lawler, D. Martin, and S. Grinton. Evidence for an alveolar-arterial PO₂ gradient during incremental exercise. *Int. J. Sports Med.* 12: 313-318, 1991.
6. Martin, D., S. Powers, M. Cicale, N. Collop, D. Huang, and **D. Criswell**. Validity of pulse oximetry during exercise in elite endurance athletes. *J. Appl. Physiol.* 72: 455-458, 1992.
7. Powers, S., J. Lawler, **D. Criswell**, F. Lieu, and D. Martin. Aging and respiratory muscle metabolic plasticity: effects of endurance training. *J. Appl. Physiol.* 72: 1068-1073, 1992.
8. Powers, S., J. Lawler, **D. Criswell**, F. Lieu, and S. Dodd. Alterations in diaphragmatic oxidative and antioxidant enzymes in the senescent Fischer 344 rat. *J. Appl. Physiol.* 72: 2317-2321, 1992.

9. Powers, S., D. Martin, M. Cicale, N. Collop, D. Huang, and **D. Criswell**. Exercise-induced hypoxemia in athletes: role of inadequate hyperventilation. *Eur. J. Appl. Physiol.* 65: 37-42, 1992.
10. Grinton, S., S. Powers, J. Lawler, **D. Criswell**, S. Dodd, W. Edwards. Endurance training-induced increases in expiratory muscle oxidative capacity. *Med. Sci. Sports Exer.* 24: 551-555, 1992.
11. Hammeren, J., S. Powers, J. Lawler, **D. Criswell**, D. Martin, D. Lowenthal, and M. Pollock. Exercise training-induced alterations in skeletal muscle oxidative and antioxidant enzyme activity in senescent rats. *Int. J. Sports Med.* 13: 412-416, 1992.
12. Powers, S., **D. Criswell**, F. Lieu, S. Dodd, and H. Silverman. Diaphragmatic fiber type specific adaptation to endurance exercise. *Respiration Physiol.* 89: 195-207, 1992.
13. Powers, S., S. Grinton, J. Lawler, **D. Criswell**, and S. Dodd. High intensity exercise training-induced metabolic alterations in respiratory muscles. *Respiration Physiol.* 89: 169-177, 1992.
14. Powers, S. K., **D. Criswell**, F.-K. Lieu, S. Dodd, and H. Silverman. Exercise-induced cellular alterations in the diaphragm. *Am. J. Physiol.* 263: R1093-1098, 1992.
15. **Criswell, D.**, K. Renshler, S. Powers, R. Tulley, M. Cicale, and K. Wheeler. Fluid replacement beverages and maintenance of plasma volume during exercise: role of aldosterone and vasopressin. *Eur. J. Appl. Physiol.* 65: 445-451, 1992.
16. Powers, S. K., F.-K. Lieu, **D. Criswell**, and S. Dodd. Biochemical verification of quantitative histochemical analysis of succinate dehydrogenase activity in skeletal muscle fibers. *Histochem. J.* 25: 491-496, 1993.
17. Lieu, F.K., S. K. Powers, R. A. Herb, **D. Criswell**, D. Martin, C. Wood, W. Stainsby, and C.L. Chen. Exercise and glucocorticoid-induced diaphragmatic myopathy. *J. Appl. Physiol.* 75(2): 763-771, 1993.
18. Lawler, JM, SK Powers, and **DS Criswell**. Inducibility of NADP-specific isocitrate dehydrogenase with endurance training in skeletal muscle. *Acta Physiol. Scand.* 149: 177-181, 1993.
19. Powers, S., **D. Criswell**, J. Lawler, D. Martin, F. Lieu, L. Ji, and R. Herb. Rigorous exercise training increases superoxide dismutase activity in the ventricular myocardium. *Am. J. Physiol.* 265(Heart Circ. Physiol. 34): H2094-H2098, 1993.
20. **Criswell, D.**, S. Powers, S. Dodd, J. Lawler, W. Edwards, K. Renshler, and S. Grinton. High intensity training-induced changes in skeletal muscle antioxidant enzyme activity. *Med. Sci. Sports Exer.* 25(10): 1135-1140, 1993.
21. Powers, S., **D. Criswell**, J. Lawler, L. Ji, D. Martin, R. Herb, and G. Dudley. Influence of exercise and fiber type on antioxidant enzyme activity in rat skeletal muscle. *Am. J. Physiol.* 266 (Regulatory Integrative Comp. Physiol. 35): R375-R380, 1994.
22. Powers, S. K., **D. Criswell**, J. Lawler, D. Martin, L. L. Ji, R. Herb, and G. Dudley. Regional training-induced alterations in diaphragmatic oxidative and antioxidant enzymes. *Respiration Physiol.* 95: 227-237, 1994.
23. Lawler, J.M., S.K. Powers, and **D.S. Criswell**. Gender differences in diaphragmatic metabolic properties of the adult Sprague-Dawley rat. *Respiration Physiol.* 97: 263-273, 1994.
24. Powers, S.K., G. Farkas, **D. Criswell**, R. Herb, K. Zambito, and S. Dodd. Metabolic characteristics of primary inspiratory and expiratory muscles in the dog. *J. Appl. Physiol.* 77(5): 2188-2193, 1994.
25. Powers, S. K., M. Wade, **D. Criswell**, R. Herb, S. Dodd, R. Hussain, and D. Martin. Role of beta-adrenergic mechanisms in exercise training-induced metabolic changes in respiratory and locomotor muscle. *Int. J. Sports Med.* 16(1): 13-18, 1995.
26. Sullivan, V.K., S.K. Powers, **D.S. Criswell**, N. Tumer, J.S. LaRochelle, and D. Lowenthal. Myosin heavy chain composition in young and old rat skeletal muscle: effects of endurance exercise. *J. Appl. Physiol.* 78(6): 2115-2120, 1995.
27. Hamilton, M.T., D.R. Marsh, **D.S. Criswell**, W. Lou, and F.W. Booth. No effect of aging on skeletal muscle insulin-like growth factor mRNAs. *Am. J. Physiol.* 269 (Regulatory, Integrative, and Comp. Physiol. 38): R1183-R1188, 1995.
28. Powers, S.K., **D. Criswell**, R.A. Herb, H. Demirel, and S.L. Dodd. Age related increases in diaphragmatic maximal shortening velocity. *J. Appl. Physiol.* 80(2): 445-451, 1996.
29. Dodd, S.L., S.K. Powers, I.S. Vrabas, **D. Criswell**, S. Stetson, and R. Hussain. Effects of clenbuterol on contractile and biochemical properties of skeletal muscle. *Med. Sci. Sports Exerc.* 28(6): 669-676, 1996.

30. Powers, S.K., and **D. Criswell**. Adaptive strategies of respiratory muscles in response to endurance exercise. *Med. Sci. Sports Exerc.* 28(9): 1115-1122, 1996.
31. **Criswell, D.S.**, S.K. Powers, and R.A. Herb. Clenbuterol-induced fiber type transition in the adult soleus. *European J. Appl. Physiol.* 74: 391-396, 1996.
32. Herb, R.A., S.K. Powers, **D.S. Criswell**, V.J. Caiozzo, I.S. Vrabas, and S.L. Dodd. Alterations in phenotypic and contractile properties of the rat diaphragm: influence of hypothyroidism. *J. Appl. Physiol.* 80(6): 2163-2170, 1996.
33. **Criswell, D.S.**, J.A. Carson, and F.W. Booth. Regulation of contractile protein gene expression in unloaded mouse skeletal muscle. *J. Gravitational Physiol.* 3(2): 58-60, 1996.
34. **Criswell, D.S.**, S.K. Powers, R.A. Herb, and S.L. Dodd. Mechanisms of specific force deficit in the senescent rat diaphragm. *Respiration Physiol.* 107: 149-155, 1997.
35. Marsh, D.R., **D.S. Criswell**, M.T. Hamilton, and F.W. Booth. Association of insulin-like growth factor mRNA expressions with muscle regeneration in young, adult, and old rats. *Am. J. Physiol.* 273 (Regulatory, Integrative, and Comp. Physiol.): R353-R358, 1997.
36. Booth, F.W., and **D.S. Criswell**. Molecular events underlying skeletal muscle atrophy and the development of effective countermeasures. *Int. J. Sports Med.* 4: S265-S269, 1997.
37. Marsh D.R., **D.S. Criswell**, J.A. Carson, and F.W. Booth. Myogenic regulatory factors during regeneration of skeletal muscle in young, adult, and old rats. *J. Appl. Physiol.* 83(4): 1270-1275, 1997.
38. **Criswell, D.S.**, V.R.M. Hodgson, E.C. Hardeman, and F.W. Booth. The nerve-responsive troponin I slow promoter does not respond to unloading. *J. Appl. Physiol.* 84(3):1083-1087, 1998.
39. **Criswell, D.S.**, F.W. Booth, F. DeMayo, R.J. Schwartz, S.E. Gordon, and M.L. Fiorotto. Over-expression of IGF-1 in skeletal muscle of transgenic mice does not prevent unloading-induced atrophy. *Am. J. Physiol. (Endocrinol. Metab.)*, 275(3 Pt 1): E373-E379, 1998.
40. Wade, M.E., R.A. Herb, S.K. Powers, and **D. Criswell**. Exercise and beta-adrenergic regulation of rat cardiac myosin isoforms. *J. Sports Med. Phys. Fitness* 39(1): 42-46, 1999.
41. Cottingham, MA, JD Smith, and **DS Criswell**. Effect of oral contraceptives on peripheral blood flow in untrained women at rest and during exercise. *J. Sports Med. Phys. Fitness* 41(1): 83-88, 2001.
42. Smith, LW, JD Smith, and **DS Criswell**. Involvement of nitric oxide synthase in skeletal muscle adaptation to chronic overload. *J. Appl. Physiol.* 92: 2002-2011, 2002.
43. **Criswell, D.S.**, R.A. Shanely, J.J. Betters, M.J. McKenzie, J.E. Sellman, D.L. Van Gammeren, and S.K. Powers. Cumulative effects of aging and mechanical ventilation on in vitro diaphragm function. *Chest* 124(6): 2302-2308, 2003.
44. Betters, J., **D. S. Criswell**, R. A. Shanely, D. Van Gammeren, D. Falk, K. DeRuisseau, T. Yimlamai, and S. K. Powers. Trolox attenuates mechanical ventilation-induced contractile dysfunction and proteolysis in the rat diaphragm. *American Journal of Respiratory and Critical Care Medicine.* 170:1179-1184, 2004.
45. **Criswell D.S.**, K.M. Henry, N.M. DiMarco, and V.B. Grossie Jr. Chronic exercise and the pro-inflammatory response to endotoxin in the serum and heart. *Immunol Lett.* 95(2): 213-20, 2004.
46. Greathouse, K.L., M. Samuels, N.M. DiMarco, and **D.S. Criswell**. Effects of increased dietary fat and exercise on skeletal muscle lipid peroxidation and antioxidant capacity in male rats. *Eur. J. Nutr.* 44(7): 429-435, 2005.
47. Sellman J.E., K.C. DeRuisseau, J.L. Betters, V.A. Lira, Q.A. Soltow, J.T. Selsby, and **D.S. Criswell**. In vivo inhibition of nitric oxide synthase impairs up-regulation of contractile protein mRNA in overloaded plantaris muscle. *J. Appl. Physiol.* 100(1): 258-265, 2006.
48. Soltow, Q.A., J.L. Betters, J.E. Sellman, V.A. Lira, J.H.D. Long, and **D.S. Criswell**. Ibuprofen inhibits skeletal muscle hypertrophy in rats. *Med. Sci. Sports Exerc.* 38(5): 840-846, 2006.
49. Long, J.H., V.A. Lira, Q.A. Soltow, J.L. Betters, J.E. Sellman, and **D.S. Criswell**. Arginine supplementation induces myoblast fusion via augmentation of nitric oxide production. *J Muscle Res Cell Motil* 27(8): 577-584, 2006.
50. Staib, J.L., J.C. Quindry, J.P. French, **D.S. Criswell**, and S.K. Powers. Increased temperature, not cardiac load, activates heat shock transcription factor 1 and heat shock protein 72 expression in the heart. *Am. J. Physiol. (Regul Integr Comp Physiol.)*, 292(1): R432-R439, 2007.

51. Lira, V.A., Q.A. Soltow, J.H.D. Long, J.L. Betters, J.E. Sellman, and **D.S. Criswell**. Nitric oxide increases GLUT4 expression and regulates AMPK signaling in skeletal muscle. *Am. J. Physiol. (Endocrinol. Metab.)*, 293(4):E1062-E1068, 2007.
52. McClung JM, AN Kavazis, MA Whidden, KC DeRuisseau, DJ Falk, **DS Criswell**, and SK Powers. Antioxidant administration attenuates mechanical ventilation-induced rat diaphragm muscle atrophy independent of protein kinase B (PKB/Akt) signaling. *J. Physiol.* 585(1): 203-215, 2007.
53. Betters JL, JHD Long, KS Howe, RW Braith, QA Soltow, VA Lira, **DS Criswell**. Nitric oxide reverses prednisolone-induced inactivation of muscle satellite cells. *Muscle Nerve* 37(2): 203-209, 2008.
54. Drenning JA, Lira VA, Simmons CG, Soltow QA, Sellman JE, **Criswell DS**. Nitric oxide facilitates NFAT-dependent transcription in mouse myotubes. *Am J Physiol Cell Physiol.* 294(4):C1088-C1095, 2008.
55. Betters JL, Lira VA, Soltow QA, Drenning JA, **Criswell DS**. Supplemental nitric oxide augments satellite cell activity on cultured myofibers from aged mice. *Exp Gerontol.* 43(12): 1094-1101, 2008.
56. Drenning JA, Lira VA, Soltow QA, Canon CN, Valera LM, Brown DL, **Criswell DS**. Endothelial nitric oxide synthase is involved in calcium-induced Akt signaling in mouse skeletal muscle. *Nitric Oxide.* 21(3-4): 192-200, 2009.
57. Lira VA, Brown DL, Lira AK, Kavazis AN, Soltow QA, Zeanah EH, **Criswell DS**. Nitric Oxide and AMPK cooperatively regulate PGC-1 {alpha} in skeletal muscle cells. *J Physiol.* 588(Pt 18): 3551-3566, 2010.
58. Soltow QA, Lira VA, Betters JL, Long JH, Sellman JE, Zeanah EH, **Criswell DS**. Nitric oxide regulates stretch-induced proliferation in C2C12 myoblasts. *J Muscle Res Cell Motil.* 31(3): 215-225, 2010.
59. Powers SK, Smuder AJ, **Criswell DS**. Mechanistic links between oxidative stress and disuse muscle atrophy. *Antioxid Redox Signal.* 15(9):2519-2528, 2011.
60. Soltow QA, Zeanah EH, Lira VA, **Criswell DS**. Cessation of cyclic stretch induces atrophy of C2C12 myotubes. *Biochemical and Biophysical Research Communications.* 434(2): 316-321, 2013.
61. Thomas MM, Wang DC, D'Souza DM, Krause MP, Layne AS, **Criswell DS**, O'Neill HM, Connor MK, Anderson JE, Kemp BE, Steinberg GR, Hawke TJ. Muscle-specific AMPK $\beta 1\beta 2$ -null mice display a myopathy due to loss of capillary density in nonpostural muscles. *FASEB J.* 28(5):2098-2107, 2014.
62. Patel DI, White LJ, Lira VA, and **DS Criswell**. Forced exercise increases muscle mass in EAE despite early onset of disability. *Physiol Res.* 65(6):1013-1017, 2016.