CURRICULUM VITAE

THOMAS L. CLANTON, PH.D.

Title:

BK and Betty Stevens Professor of Applied Physiology & Kinesiology, University of Florida

Citizenship:

United States.

Current Address and Phone Number:

University of Florida
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Wife: Pamela Clanton
Son: Samuel Clanton

Education:

Gustavus Adolphus College, St. Peter, MN, B.A. (Chemistry), 1971.
University of Chicago Hospitals, Chicago, IL, Degree (Respiratory Therapy), 1973.
University of Nebraska Medical School, Omaha, NB, Ph.D. (Physiology and Biophysics), 1980.
Postdoctoral Fellowship, The Ohio State University, Dept. of Physiology, 1980-1982

Academic Positions:

2007 - present Professor of Applied Physiology & Kinesiology. University of Florida, 2007
2015- 2019 Chair: Department of Applied Physiology and Kinesiology, University of Florida
2013-2014 Interim Chair of Health Education and Behavior, University of Florida
2007- *Professor emeritus*, Department of Internal Med., The Ohio State University.
1997- 2007 Professor of Internal Medicine, Physiology and Cell Biology and Allied Medicine
1988 - 1997 Associate Professor of Medicine, Physiology and Allied Medicine; Director, Pulmonary Diagnostic Laboratory. The Ohio State University, Columbus, Ohio.
1982 - 1988 Assistant Professor Medicine, Physiology, and Allied Medicine. The Ohio State College of Medicine, Director, Pulmonary Diagnostic Laboratory. The Ohio State University, Columbus, Ohio.
1980 – 1982 Postdoctoral Fellow, Department of Physiology. The Ohio State University, Columbus, Ohio.
1976 – 1980 Graduate Research and Teaching Assistant, Physiology and Biophysics, U. of Nebraska Medical School

Professional Memberships: Past and Present

American College of Sports Medicine (ACSM) (current)
American Physiological Society (APS) (current)
American Heart Association

American Thoracic Society 1981-2007
American Association for the Advancement of Science
Biophysical Society
Ohio Thoracic Society
Society for Free Radical Biology & Medicine
Shock Society

Honors , Awards and Service Appointments:

Academic Scholarship, Gustavus Adolphus College, 1967 - 1969.
Guild of St. Ansgar (Leadership Award), Gustavus Adolphus College, 1971.
Parker B. Francis Postdoctoral Fellow, 1980-1981.
American Heart Association Fellow 1981-1982
New Investigator Award, National Institutes of Health 1985-88
Technical Director: Pulmonary Diagnostic Services, Ohio State University Medical Center (1985 -2000)
Director and Founder: OSU Pulmonary Rehabilitation Program (1995 -2000)
American Lung Association Research Committee, 1987-1990
Chair: American Lung Association of Ohio Research Committee (1990)
American Heart Association Research Committee, 1987-88
Co-chair: College of Medicine, Animal Review Committee, (1988-1990)
Chair: Department of Internal Medicine, Research Advisory Committee (1991 -1993)
Member: Department of Internal Medicine, Research Advisory Committee (1993- 2000)
Planning Committee, Nominating Committee: American Thoracic Society, Assembly on Respiratory Structure and Function (1992-1995)
Ad Hoc Reviewer: National Institutes of Health, Respiratory and Applied Physiology Study Section (1990,1991,1995{x3},1996,).
Regular Member National Institutes of Health, NHLBI, Respiratory and Applied Physiology Study Section. (1997-2001)
Frequent Session Chairperson: American Physiological Society (Exp Bio), American Thoracic Society, American College of Sports Medicine
Faculty Sponsor of the OSU College of Medicine, Postdoctoral Research Fellow Association (1992-1996)
Editorial Board: Journal of Applied Physiology (1996 - 2017)
Editorial Board: American Journal of Physiology, Regulatory Integrative and Comparative Physiology (2008- present)
Section Leader of the Joint International Committee on Clinical Assessment of Respiratory Muscles, American Thoracic Society and European Thoracic Society (1996)
Graduate Studies Chair: OSU Interdisciplinary Program in Biophysics (2000-2001)
Director of the OSU Interdisciplinary Graduate Program in Biophysics (2001- 2006)
Co-Director of the OSU Interdisciplinary Graduate Program in Biophysics (2006-2007)
Director- Multiphoton and Confocal Imaging Core, Dorothy M. Davis Heart & Lung and Research Institute (2001 - 2004)
Elizabeth Gross Award for Faculty Excellence in Biophysics

Associate Director, Dorothy M. Davis Heart & Lung Research Institute (2002-2007)
Space Committee, Core Laboratory Committee, Operations Committee, Dorothy M. Davis Heart & Lung Research Institute (2002- 2007)
Fellowship Committee, OSU Graduate School (2004-2005)
Department of Internal Medicine Promotions and Tenure Committee (2003-2007)
Stevens Visiting Scholar, University of Florida, (March 2004)
Davis Heart & Lung Research Institute Mentorship Award (Dec 2004)
Chair College of Health and Human Performance T & P Committee (2010-2011)
Chair Department of Applied Physiology and Kinesiology T & P Committee (2009-2010)
BK and Betty Stevens Professorship, Applied Physiology and Kinesiology (2011-present)
Member: University of Florida Academic Personnel Board APB (University T & P) (2012-2013)
Chair University of Florida Academic Personnel Board APB (University T & P) (2012-2013)
University of Florida Research Foundation Professor (2014)
American Physiological Society Exercise and Environmental Physiology Section Counselor (2015-2018)
2018 Fellow of the American Physiological Society

Grants /Contracts/Patents:

Past Funding

AHA, Central Ohio Heart Chapter, Research Chapter, Postdoctoral Fellowship, "Control of rate and depth of breathing in chickens." 1980-1981. $12,000.
AHA, Central Ohio Heart Chapter, Research Grant, "Origin of respiratory blood pressure waves in chickens." October, 1981 - September, 1982. $11,381.
Bremer Foundation, The Ohio State University College of Medicine, P.I. "Factors influencing the development of respiratory muscle fatigue in man." 1982. $5,000.
University Small Research Grant, The Ohio State University, P.I. "The effects of pulmonary and systemic CO_2 on ventilatory reflexes in the dog." 1983. $7,500.
National Institutes of Health, New Investigator Award, P.I. "Isokinetic analysis of inspiratory muscle function." 1985 - 1988. $37,500/year.
American Heart Association, "Does lack of O_2 limit maximum force in fatigued diaphragm?" P.I. 1987 - 1989. $25,000/year.
National Institutes of Health RO-1, "A dynamic tension-time index hypothesis." P.I. 1988 1991. $84,614/year.
University Seed Grant, The Ohio State University, "Free Radical Mediated Diaphragm Injury in Respiratory Failure." P.I., 1991 -92. $11,739.00
American Lung Association Fellowship Grant for Philip Diaz, M.D., fellow being trained in laboratory, 1990 - 1993, $19,000/yr.
Ross Laboratories, "Interactions between surfactant replacement therapy and fluid management in a model of ARDS" 1992-3, P.I. $60,000/yr

Pfizer Corporation: The effects of an NK-1 (Substance P) antagonist on ventilatory drive in humans: P.I. Nicholas Gerber, Co-P.I. T. Clanton, approx. $50,000.

Pfizer Corporation: Phase II Clinical Trial of an NK-1 substance P antagonist on bronchoconstriction in asthma. P.I. Nicholas Gerber, Co-Inv.:T.Clanton, $60,000.

American Heart Association, Central Ohio Chapter, "Endogenous hydroxyl radical production and protein oxidation in skeletal muscle, P.I. Phil Diaz, Co.-Inv.: T. Clanton, $30,000/yr.

American Heart Association, Central Ohio Chapter, "Potential Mechanisms of stress adaptation in skeletal muscle," $30,000/yr (Fellowship support for Kathy Andersen, M.D.; 4th year fellow).

National Institutes of Health, RO-1 "HIV-induced emphysema: a challenge to conventional ideas. P.I. James Gadek, Co-I T. Clanton, 10%. 1993-1998, $317,502/yr

National Institutes of Health, RO-1, "Lymphocytic alveolitis, IL-1B regulation and lung injury", P.I. Mark Wewers, Co-I. T. Clanton, $250,000/yr.

National Institutes of Health, RO-1, "Mechanisms of oxidant production in respiratory failure", P.I. T. Clanton, 1994-1999 , $192,077/yr

National Institutes of Health, R-21 NIGMS GM58772 "In vivo detection of free radicals using NMR ", P.I. T Clanton, 1999-2001, $110,000/yr

National Institutes of Health, Clinical center for lung volume reduction surgery for emphysema: a multicenter assessment and prospective patient registry P.I.: Philip Diaz, Patrick Ross; Co-I. T. Clanton, et. al. (10% Donated). Total award/year: $200,000/yr 1997-2003.

National Institutes of Health: Macrophage HIV infection in the lung microenvironment. P.I. M. Wewers, Co-I T. Clanton (10%), $200,000/yr 1999-2004

National Institutes of Health: RO1-53333-05-09 Redox mechanisms of respiratory muscle stress adaptation. P.I. T. Clanton $250,000/yr, 1999-2004

National Institutes of Health: RO1-53333-09-14 Redox mechanisms of respiratory muscle stress adaptation. P.I. T. Clanton $250,000/yr, 2004-2008

American Heart Association Grant in Aid (2011-2013), $82,500/yr. Skeletal muscle interleukin-6 and the endocrine response to stress.

US ARMY Research Institute of Environmental Medicine (USARIEM) Development of a Heat Injury Model in Conscious Mice, $99,000 through fall 2014.

Department of Defense; Broad Agency Announcement, Extramural Medical Research Sept 2015-Sept 2018 P.I Clanton "*Prevention of organ injury in exertional heat stroke: preclinical evaluation of a new class of NSAIDs*" $875,938.

National Institutes of health RO1 NIGMS 1R01GM118895-01 July 2016-June 2020 (currently no cost extension). *"Functional role of skeletal muscle in the innate immune response to sepsis"* PI: Clanton $197,000 direct costs/year for 4 years.

Current Funding:

BK and Betty Stevens Endowed Professorship (2011-present) $30,000-40,000/yr

Department of Defense Broad Agency Announcement BA180078 (2018-2022)
"*Epigenetic markers for susceptibility and recovery from exertional heat stroke"*
$346,278 direct costs/yr
Department of Defense Broad Agency Announcement BA220200 (2024-2027)
P.I. Clanton "Accessible epigenetic biomarkers for climate readiness: from Mouse to Human"~$392,280 direct costs/yr

Patent

United States Patent 4854574 Inspiratory Muscle Trainer. Inventors: Thomas L. Clanton & Douglas Larson, Assignee: Healthscan Inc. (now Phillips), Filing Date: March 15, 1988, Continuous royalties, still commercially available, used throughout the world for pulmonary rehabilitation programs.

Ph.D. Graduate Students and Postdoctoral Fellows at University of Florida since 2007

*****Steven Welc Ph.D. 2014 Faculty member University of Indiana Medical School
*****Neil Phillips, Ph.D student., University Fellowship Student, completed M.S. in 2010. Left UF for medical/personal reasons. Returned to grad school at Johns Hopkins University.
Veronica Novosad Completed M.S. in 2011 in Clanton Lab. Practicing physician in Gainesville.
Anthony Payne, Ph.D. ,postdoctoral fellow Currently a tenure track faculty at Frank H Netter School of Medicine.
Michelle King Completed her Ph.D. in December 2015, Currently Research Scientist for Gatorade (Pepsico)
Alex Mattingly Ph.D., in 2018, now a postdoc with the Veterans Administration.
Orlando Laitano, Ph.D. 2016-2019, Post doc/research Assistant Professor, no Asst Prof. FSU.
Kevin Murray, Ph.D. 2016-2020. Currently postdoc at Univ of Colorado, Boulder.
Christian Garcia. Ph.D 2016-2021. Currently postdoc at University of Florida
+Gerard Robinson Ph.D. 2016-2021 Currently employed as science writer and consultant.
Jamal Alzharani 4th year Ph.D student
*****UNIVERSITY FELLOWS
[+] Supported on Training grants.

PUBLICATIONS

Peer Reviewed Literature

1. **Clanton TL**, Ballam GO, Moore RK, Kunz AL. Rapid ventilatory responses to changes in insufflated CO_2 in awake roosters. *J Appl Physiol* 53(6):1371-1377, 1982.
2. Ballam GO, **Clanton TL**, Kunz AL. Ventilatory phase duration in the chicken: role of mechanical and CO_2 feedback. *J Appl Physiol* 53(6):1378-1385, 1982.

3. **Clanton TL**, Lipscomb WT. The effects of hypercapnia on the Breuer-Hering threshold for inspiratory termination. *J Appl Physiol* 57(4):1211-1221, 1984.
4. Ballam GO, **Clanton TL**, Kunz AL. Pressure loading at constant pulmonary CO_2 concentrations in Gallus domesticus. *Resp Physiol* 58:197-206, 1984.
5. **Clanton TL**, Dixon GF, Drake JE, Gadek JE. Inspiratory muscle conditioning using a threshold loading device. *Chest* 87(1):62-66, 1985.
6. **Clanton TL**, Dixon GF**, Drake JE, Gadek JE. Effects of breathing pattern on inspiratory muscle endurance in humans. *J Appl Physiol* 59(6):1834-1841, 1985.
7. Ballam GO, **Clanton TL**, Kaminski RP, Kunz AL. Effect of sinusoidal forcing of ventilatory volume on avian breathing frequency. *J Appl Physiol* 59(3):991-1000, 1985.
8. **Clanton TL**, Dixon GF**, Drake JE, Gadek JE. Effects of swim training on lung volumes and inspiratory muscle conditioning in varsity female swimmers. *J Appl Physiol* 62(1):3946, 1987.
9. Thomson DB**, **Clanton TL**. A simple dosimeter for bronchial provocation testing using a solid state electronic timing module. *Respir Care* 31:1204-1206, 1986.
10. **Clanton TL**, Ameredes BT*. An isokinetic approach to the study of inspiratory muscle endurance: effects of flow rate. "Respiratory Muscles and Their Neuromotor Control", Neurology and Neurobiology, Vol. 26. Sieck, et al., eds. Alan R. Liss, Inc. 347-351, 1987.
11. **Clanton TL**, Ameredes BT*. Fatigue of the inspiratory muscle pump in humans: an isoflow approach. *J Appl Physiol* 64(4):1692-1699, 1988.
12. Ameredes BT*, **Clanton TL**. Accelerated decay of inspiratory pressure during hypercapnic endurance trials in humans. *J Appl Physiol* 65(2):728-735, 1988.
13. Ameredes BT*, **Clanton TL**. Hyperoxia and moderate hypoxia fail to affect inspiratory muscle fatigue in humans. *J Appl Physiol* 66(2):894-900, 1989.
14. **Clanton TL**, Ameredes BT*, Thomson DB*, Julian MW. Sustainable inspiratory pressures over varying flows, volumes and duty cycles. *J Appl Physiol* 69(5):1875-1882, 1990.
15. Ameredes BT*, **Clanton TL**. Muscle shortening increases fatigue of canine diaphragm. Progress in Clinical & Biological Research. 785-787, 1990.
16. Ameredes BT*, **Clanton TL**. Increased fatigue of isovelocity vs. isometric contractions of canine diaphragm. *J Appl Physiol* 69(2):740-746, 1990.
17. Barohn RJ, **Clanton TL**, Sahenk Z, Mendell JR. Recurrent respiratory insufficiency and depressed ventilatory drive complicating mitochondrial myopathies. *Neurology* 40:103-106, 1990.
18. Ameredes BT*, **Clanton TL**, Julian MW*. Muscle shortening increases sensitivity of fatigue to severe hypoxia in canine diaphragm. *J Appl Physiol.* 71(6):2309-2316, 1991.
19. Grassino AE, **Clanton TL**. Respiratory muscle fatigue. *Seminars in Respiratory Medicine*. 12(4): 305-319, 1991
20. Kinker JR*, Haffor A, Stephan M, **Clanton TL**. Kinetics of CO uptake and diffusing capacity in the transition from rest to steady state exercise. *J Appl Physiol* 72(5):1764-1772, 1992
21. **Clanton TL**, Hartman E*, Julian MW. Preservation of sustainable inspiratory muscle pressure at increased end-expiratory lung volume. *Am Rev Resp Dis*. 147:385-391, 1993

22. Diaz PT[**], **Clanton TL**, Pacht, ER. Emphysema-like pulmonary disease associated with human immunodeficiency syndrome. *Annals Int Med* 116(2):124-128, 1992
23. Diaz PT[**], Julian, MW, Wewers MD, **Clanton TL**. Tumor necrosis factor and endotoxin do not directly affect *in vitro* diaphragm function. *Am Rev Resp Dis*. 148(2):281-288, 1993.
24. Diaz PT[**], **Clanton TL**. Marked pulmonary function abnormalities in a case of HIVassociated pulmonary hypertension. *Chest* 104:313-315, 1993.
25. Diaz PT[**], She ZW, Davis WB, **Clanton TL**. Hydroxylation of salicylate by the in vitro diaphragm: evidence for hydroxyl radical production during fatigue. *J Appl Physiol* 75(2):540-552, 1993.
26. Grassino AE, **Clanton T**. Mechanisms of muscle fatigue. *Monaldi Arch Chest Dis.* 48(1): 94-98, 1993.
27. Preusser B[**], Winningham M, **Clanton TL**. High vs low intensity respiratory muscle interval training in patients with severe C.O.P.D. *Chest* 106:110-117, 1994.
28. Sawyer EH, **Clanton TL**. Improved pulmonary function and exercise tolerance with inspiratory muscle conditioning in children with cystic fibrosis. *Chest* 104:1490-97, 1993.
29. Diaz PT[**],Brownstein E[*], **Clanton TL**. Effects of N-acetylcysteine on in vitro diaphragm function are temperature dependent *J. Appl. Physiol.* 77(5):2434-2439, 1994.
30. Borzone G*****, Julian MW, Merola AJ, **Clanton TL.** Loss of diaphragm glutathione is associated with respiratory failure induced by resistive breathing. *J. Appl. Physiol.* 76(6):2825-2831, 1994.
31. Borzone G*****, Zhao B, Merola AJ, Berliner L, **Clanton TL.** Detection of free radicals by electron spin resonance in rat diaphragm following resistive loading. *J. Appl. Physiol.* 77(2):812-818, 1994.
32. Hartell MG[*], Borzone G*****, **Clanton TL**, LJ Berliner. Detection of free radicals in blood by electron spin resonance (ESR) in a model of respiratory failure in the rat. *Free Rad. Biol.Med.* 17(5):467-472, 1994.
33. **Clanton TL**, Diaz PT. Clinical assessment of the respiratory muscles. *Physical Therapy* 75(11):983-995, 1995
34. Andersen, KA[**], PT Diaz[**], VP Wright, **TL Clanton**. N-*tert*-butyl-a-phenylnitrone: a free radical trap with unanticipated effects on diaphragm function. *J Appl Physiol* 80(3):862-868, 1996.
35. Diaz PT[**], MJ Costanza[*], VP Wright, MW Julian, JA Diaz, **TL Clanton**. Dithiothreitol improves recovery of in vitro diaphragm fatigue. *Med and Science in Sports and Exer. 30(3):*
1-6, 1998.
36. Narayan, M[*], LJ Berliner, AJ Merola, PT Diaz[**], **TL Clanton.** Biological Reactions of peroxynitrite: evidence for an alternative pathway of salicylate hydroxylation. *Free Rad. Research*, 27:63-72, 1997
37. Waugh, JB[*], TB Opt'Holt, JE Gadek, **TL Clanton.** High dose furosemide alters gas exchange in a model of acute lung injury. *J.Crit. Care,* 11(3):129-137, 1996.
38. Pacht, ER, PT Diaz[**], **TL Clanton**, J Hart, JE Gadek. Alveolar lining fluid glutathione is not reduced in asymptomatic HIV-seropositive subjects. *Am J Resp. Crit. Care Med*, 155(1):374-377, 1997.

39. **Clanton, TL**, A short history of nitric oxide and skeletal muscles. *Comp. Biochem. and Physiol.* 119(1): 165-66, *1997.*
40. Pacht, ER., P Diaz, **T Clanton**, J Hart, JE Gadek. Alveolar fluid glutathione decreases in asymptomatic HIV-positive subjects over time *Chest 112:785-88, 1997*.
42. Mohanraj, P*, JA Merola, V Wright, **TL Clanton**. Antioxidants protect rat diaphragmatic muscle function under hypoxic conditions. *J Appl. Physiol. 84(6):1960-1966, 1998. 1998.*
43. Pacht E, P Diaz, **T Clanton**, J Hart, J Gadek. Serum vitamin E decreases in HIVseropositive subjects over time. *Lab. Clin. Med.*130(3):293-296. 1997.
44. Wewers, M.D., P.T. Diaz, ME. Wewers, M.P. Lowe, M Flynn, A. Winnard, **T.L. Clanton**. Cigarette smoking n HIV infection induces a suppressive lung inflammatory environment that is independent of blood CD4counts. *Am J Respir Crit Care Med. Nov;158(5 Pt 1):15431549,1998*
45. Gelman, M., MA King, DE Neal , ER Pacht, **TL Clanton**, PT Diaz. Focal air trapping in patients with HIV infection: CT evaluation and correlation with pulmonary function tests *Am J Roentgenol 172(4):1033-8, 1999*
46. Khramtsov V, L J Berliner ,**TL Clanton**, NMR spin trapping: detection of free radical adducts using a phosphorus containing nitrone spin trap, *Magn.Reson.Med* 42(2) *228-234*: *1999*.
47. Waugh, JB*, T. B. Op't Holt, LE Olson, JE Gadek, **TL Clanton**. Surfactant alters gas exchange in a model of acute lung injury. *Critical Care Medicine 28(8):2887-2892, 2000.*
48. Diaz, PT, M King, E. Pacht, HN Nagaraja, M. Wewers**, TL. Clanton.** Pathophysiology of diffusion impairment in HIV infection, *Am J Respir Crit Care Med. Jul;160(1):272-7, 1999*
49. Diaz, PT, M. King ER Pacht, JE Gadek, H.N Nagaraja, J. Drake, **TL Clanton**. Increased susceptibility to pulmonary emphysema among HIV-seropositive smokers, *Annals of Int. Med. 132 (5):369-372, 2000*
50. Diaz, P.T., M King, M.D. Wewers, J.E. Gadek, D. Neal, J. Drake, **T.L Clanton**. HIVinfection increases susceptibility to smoking-induced emphysema. *Chest 117:285S, 2000*
51. **Clanton TL**, Klawitter P*, Zuo L. Oxidants in skeletal muscle function: physiologic and pathophysiologic implications. *Proc.Soc. Exp.Biol.Med.* 222:253-261, 1999.
52. Zuo, L*, FL Christofi, VP Wright, CY Liu, AJ Merola, LJ Berliner, **TL Clanton** Intra- and extracellular reactive oxygen formation during heat stress in skeletal muscle *Amer. J. Physiol. (Cell) 273:C1058-1066, 2000*
53. Angelos, M.G., P.F. Klawitter, H.N. Murray, **T.L. Clanton**. Low-flow perfusion in the heart following global ischemia imporves LV function. *Acad. Emerg. Med, 7(1):1171, 2000*
54. Berliner, L.J., Khramtsov, V., Fujii, H., **T.L. Clanton**. Unique in vivo applications of spin traps. *Free Rad. Biol. Med. 30(5), 489-499, 2001.*
55. Khramtsov, V.V., V.A. Reznikov, L.J. Berliner, A.K. Litkin, I.A. Grigor'ev, **T.L. Clanton.** NMR spin trapping: detection of free radical reactions with a new fluorinated DMPO analog. *Free Rad. Biol. Med. 30(10)1099-1107, 2001*

56. **Clanton, TL,** Klawitter P*. Physiological and Genomic Consequences of Intermittent Hypoxia. Invited Review: Adaptive responses of skeletal muscle to intermittent hypoxia: the known and the unknown. *J. Appl. Physiology, 90:* 2476-2487, *2001.*
57. Khramtsov, V.V., L.J. Berliner, **T.L. Clanton**. New approaches in spin labeling and spin trapping. Part Two. Kluver Academic/Plenum Press (Ed. Greta Pifat)*, Supramolecular Structure and Function 7,89-105, 2001.*
58. **Clanton, T.L.**, V. Wright, PJ Reiser, P.T. Klawitter*, N. Prahbakar. Physiologic and genomic consequences of intermittent hypoxia. Selected Contribution: improved anoxic tolerance in rat diaphragm following intermittent hypoxia. *J. Appl. Physiol.* 90:2508-251, 2001
59. Khramtsov V.V., Vladimir A. Reznikov, Lawrence J. Berliner, Artem K. Litkin, Igor A.Grigor'ev, and **T.L.Clanton**, "NMR spin trapping: detection of free radical reactions with a new fluorinated DMPO analog," in Supramolecular Structure and Function 7, (G. PifatMrzljak, ed, Kluwer Academic/Plenum Publishers, New York) pp. 107-117 2001
60. Klawitter, P.F., H.N.Murray, **T.L. Clanton**, M.G. Angelos. Reactive oxygen generated during myocardial ischemia enables energetic recovery during reperfusion. *Am J Physiol (Heart Circ)* 283: H1656-H1661, 2002
61. Zuo, L*, **T.L. Clanton**. Detection of reactive oxygen and nitrogen species using redoxsensitive fluorescent probes. Invited Review: *Methods in Enzymology*, 325: 307-325, 2002
62. Klawitter PF, Murray HN, Clanton TL, Palmer BS, Angelos MG Low flow after global ischemia to improve postischemic myocardial function and bioenergetics. *Crit Care Med.* 30(11):2603-4, 2002.
63. **Clanton, TL,** P.M. Claverly, B.R. Celli. Tests of respiratory muscle endurance. ATS/ERS Statement on Respiratory Muscle Testing Editors. A. Grassino, J Moxham, *Amer J Resp Crit Care Med* 166:559-569, 2002
64. Berliner, L.J., V.Khramtsov, **T.L. Clanton**, H. Fujii. NMR and MRI spin trapping: using NMR to learn about free radicals. *Current Topics in Biophysics*, 26(1):898-95, 2002
65. Potapenko, D.G., **T.L. Clanton**, E.G. Bagryanskaya, N.P Gritsan, V.A. Reznikov, V.V. Khramtsov. Nonradical mechanism of (bi) sulfite reactions with DEPMPO: cautionary note for $SO_3^{\bullet\bullet}$ radical spin trapping. *Free Rad.Biol.Med.* 32 (2), 196-206, 2003
66. Zuo, L, S. Pasniciuc, V.P. Wright, A.J. Merola, **T.L. Clanton**. Sources for superoxide release: lessons from blockade of electron transport, NADPH oxidase and anion channels in diaphragm. *Antioxidants & Redox Signaling*, *Antioxid. Redox Signal.* 5, 667–675, 2003
67. Bhatt N.Y., T.W. Kelley, V. Khramtsov, Y. Wang, G.K. Lam, **T.L. Clanton**, C.B. Marsh. M-CSF-induced Erk activation involves PI 3-kinase and ROS in human monocytes. *J. Immunol.* 169(11):6427-34, 2002
68. Diaz PT, Wewers MD, Pacht E, Drake J, Nagaraja HN, **Clanton TL**. Respiratory symptoms among HIV seropositive individuals. *Chest,* 123(6):1977-82.2003.
69. Klawitter, P.F., **Clanton, T.L.** Tension-time index, fatigue and energetics in isolated rat diaphragm: a new experimental model. *J. Appl. Physiology* 96(1):89-95, 2004
70. Potapenko, D.I., E.G. Bagryanskaya, V.V. Reznikov, **T.L. Clanton** and V.V. Khramtsov, 2003, NMR and EPR studies of the reaction of nucleophylic addition of (bi)sulfite to the

nitrone spin trap DMPO *Magn.Reson.Chem.* 41:603-608, 2003

71. Stoner, J., Angelos, M.G., **Clanton, T.L**. Myocardial contractile function during postischemic low flow reperfusion: critical thresholds of NADH and O2 delivery *Am. J. Physiol, Heart and Circulation* 286:H375-H380, 2003
72. Bobko, A.A., Bagryanskaya, E.G., Reznikov, V.A., Kolosova, N.G., **Clanton, T.L**., Khramtosv, V.V., Redox-sensitive mechanism of NO scavenging by nitronyl nitroxides. *Free Radic Biol Med*. 36(2):248-58,2004 .
73. Diaz, P.T., Wewers, M.D, King, M., Wade, J., Hart, J., **Clanton. T.L.** Regional differences in emphysema scores and BAL glutathione levels in HIV-infected individuals. *Chest 126(5):1439-1442, 2004*
74. Zuo, L, F.L. Christofi, S. Bao, V.P. Wright, **T.L. Clanton**. Lipoxygenase-dependent superoxide release in skeletal muscle. *J. Appl Physiol, 97:661-668, 2004*
75. Zuo, L., **Clanton, T.L.** Reactive oxygen formation in the transition to hypoxia in skeletal muscle. *Am. J. Physiol. (Cell), 2005* Jul; 289(1):C207-16.
76. Wright, V.P., Klawitter, P., Iscru, D.F, Merola, A.J., **Clanton, T.L** Superoxide scavengers augment contractile but not energetic responses to hypoxia in rat diaphragm. *J. Appl. Physiol. 98(5):1753-60, 2005*
77. Potapenko, D.I., Bagryanskaya, E.G., Grigoriev, I.A., Maksimov, A.M., Reznikov, V.A., Platonov, V.E., **Clanton, T.L**., Khramtsov, V.V. Quantitative determination of SH groups using 19FNMR spectroscopy and disulfide of the 2,3,5,6-tetrafluoro-4-mercaptobenzoic acid. *Magn. Reson. Chem 43:902-909, 2005.*
78. Wewers MD, Lemeshow S, Lehman A, **Clanton TL**, Diaz PT. Lung CD4 lymphocytes predict survival in asymptomatic HIV infection. *Chest*. 2005 Oct;128(4):2262-7.
79. Stoner JD, **Clanton TL**, Aune SE, Angelos MG, O_2 Delivery and redox state are determinants of compartment-specific reactive oxygen species in myocardial reperfusion. *Amer. J. Physiol* 292(1):H109-116, 2007
80. **Clanton, T.L.** Hypoxia-induced reactive oxygen formation*, J Appl. Physiol 102:2379-2388 2007*
81. Oliver, S.R., Wright, V.P., Parinandi, N., **Clanton.T.L**. Thermal tolerance of contractile function in oxidative skeletal muscle: no protection by antioxidants but reduced tolerance with eicosanoid enzyme inhibition. *Amer J Physiol. Regulatory, Integrative and Comparative, 295(5):R1695-16705, 2008*
82. Wright, V.P., Reiser, P.J. **Clanton, T.L.** Redox modulation of global phosphatase activity and protein phosphorylation in intact skeletal muscle. *J Physiol. (London)*587(Pt 23):57675781. *2009*
83. **Clanton, T.L.,** S. Levine. Respiratory muscle fiber remodeling in chronic hyperinflation: dysfunction or adaptation? *J. Appl. Physiol. 107(1)324-335*, 2009.
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Invited Book Chapters and Editorials

124. **Clanton TL.** Book chapter: "Respiratory muscle endurance", The Thorax, : Part B: Applied Physiology, Ch Roussos, ed., The Lung in Health and Disease Series, Marcel Dekker, Inc. pp 1199-1230, 1995.
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127. **Clanton, TL** Invited editorial: A breakthrough in the functional evaluation of the inspiratory muscle pump. *Eur Respir J* 19(2):207-8, 2002
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129. **Clanton TL.** Last Word on Viewpoint: Managing the power grid: how myoglobin can regulate PO(2) and energy distribution in skeletal muscle. J Appl Physiol (1985). 2019 Mar 1;126(3):795.
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Recent invited National/International Presentations.

Invited symposium Speaker. Title: "Overview of molecular mechanisms of ROS-induced cell signaling and transcriptional regulation." American College of Sports Medicine, Seattle WA. May, 2009.

Invited Speaker. "Oaths for Scientists and other Scholars" Meeting of the International Society for Science in Society, Cambridge England, Aug, 2009

Invited symposium Speaker. Title: Common molecular mechanisms of ROS-induced cell signaling and transcriptional regulation. Experimental Biology, Anaheim CA, April 2010.

Invited Symposium New insights into the role of cytokines in the pathophysiology of heat stroke. Title: Upregulation of IL-6 mRNA in response to hyperthermia. American College of Sports Medicine, Denver Colorado, May, 2011.

Invited Symposium. Performance physiology in Heat: new concepts and controversies. Title: Il-6 supplementation increases thermotolerance and reduces intestinal permeability in anesthetized mice. Experimental Biology, 2011, Washington, D.C.

Invited Oral Presentation: "Stress induced cytokine production in skeletal muscle: another element of the stress response? Gainesville Florida, 2012. Advances in Skeletal Muscle Biology in Health and Disease.

Symposium Speaker. "Skeletal muscle myokines in exercise and health" Title: Skeletal muscle as an endocrine organ and cytokine generator. American College of Sports Medicine, May, 2012. San Francisco CA.

Symposium Keynote Address: "Cellular Basis for Heat Stroke and Heat Injury. American College of Sports Medicine, Orlando, FL. May 2014.

Invited Speaker, University of Florida, Muscle Physiology Meeting, "Acute regulation of IL-6 in stressed muscle fibers." 2014. Gainesville, FL

Invited Speaker, Nov 7, 2015 Sao Paulo Brazil GSSI Health Issues in the Summer Olympics 2016. "Update on the pathophysiology of exertional heat stroke"

Invited Speaker: University of Florida 2016 Advances in skeletal muscle Biology in Health and Disease; Myology Institute Symposium "Surprise! Skeletal muscle is an immune organ" Jan 20, 2016.

Invited Speaker: University of Florida, Immunology Institute: Potential Role of Skeletal Muscle in innate Immunity 2017.

Invited Speaker MHSRS (Military Medicine) Symposium. Orlando Florida The intestinal epithelium is vulnerable to heat, exercise and NSAIDs, Aug, 2017.

Invited Speaker MHSRS (Military Medicine) Symposium Orlando Florida Aug, 2018 DNA methylation as a historical epigenetic record of environmental exposure.

Invited Speaker University of Florida Cancer Center. Metabolomic evidence for a delayed and "silent" form of myocardial injury following exposure to exertional heat stroke in mice." Jan, 2020

Invited Speaker BREATH Lecture series UF. Potential involvement of neuronal and muscle systems in the response to and recovery from COVID19. May 2020