

Stephen Clarke, Ph.D.

Associate Professor
Nutritional Sciences
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Education:

B.S., Nutritional Sciences, University of Oklahoma Health Sciences Center
M.S., Nutritional Sciences, University of Oklahoma Health Sciences Center
Ph.D., Nutritional Sciences, University of Wisconsin
Post-doc, Molecular Cardiology, University of Texas Southwestern Medical Center

Academic Appointments:

2011-present: Ex Officio Member, Oklahoma State University College of Human Sciences Faculty Advisory Council

2008-present: Undergraduate/Graduate Faculty Representative for College of Human Sciences, Oklahoma State University Academic Integrity Panel

2011-present: Chair, Retirement and Fringe Benefits Committee, Oklahoma State University Faculty Council

2011-present: College of Human Sciences Representative, Oklahoma State University Faculty Council

2010-present: Oklahoma State University Pre-Health Advisory Committee

Awards and Honors:

2012: Golden Torch Award, Mortar Board Honor Society, Oklahoma State University

2011: Marguerite Scruggs Award for Early Career Meritorious Research, College of Human Sciences, Oklahoma State University

2010: Golden Torch Award, Mortar Board Honor Society, Oklahoma State University

2009: Outstanding Undergraduate Advisor Award, College of Human Sciences, Oklahoma State University

2009: Outstanding Advisor Award, College of Human Sciences, Oklahoma State University

2009: Award for Excellence in Advisement, Oklahoma State University

Other Experience and Professional Memberships:

American Society for Bone and Mineral Research

American Association for the Advancement of Science

American Dietetic Association

American Society for Nutrition

Research Funding:

03/2010-03/2013: National Institutes of Health, "Molecular coordination of iron homeostasis by microns."

08/2009-07/2011: Oklahoma Agricultural Experiment Station, "Micro architectural, structural, and cellular alterations in bone: Role of iron in maintaining optimal bone health."

08/2008-07/2011: United States Department of Agriculture, "Common mechanisms controlling the response to iron and oxygen availability."

08/2008-07/2010: Oklahoma Agricultural Experiment Station, "Osteoporosis risk in Oklahoma Native American women: The role of inflammation and diabetes."

08/2009-07/2012: Oklahoma Center for the Advancement of Science and Technology, "Effect of mushrooms on endothelial-1 secretion and cancer."

Selected Publications:

1. Davis, MR., Hester, K2., Lucas, EA., Sharon, K2., Smith, BJ., & Clarke, SL. (2012). Comparisons of the iron deficient metabolic response in rats fed either an AIN-76 or AIN-93 based diet. *Nutrition and Metabolism*, 9(1): 95.
2. Davis, M.R., Smith, B.J., Lucas, E.A., & Clarke, S.L. (2012). Enhanced expression of lipogenic genes may contribute to hyperglycemia and alterations in plasma lipids in response to dietary iron deficiency. *Genes Nutrition*, 7(3):415-25.
3. Lucas, E.A., Brown A, Li W, Peterson SK, Wang Y, Perkins-Veazie P, Clarke, S.L., & Smith, B.J. (2012). Mango modulates blood glucose similar to rosiglitazone without compromising bone parameters in mice fed high fat diet. *J Pharm and Nutrition Sciences*, 2(2): 115-126.
4. Rendina, E., Lim YF, Marlow D, Wang Y, Clarke, S.L., Kuvibidila, S., Lucas, E.A., & Smith, B.J. (2012). Dietary supplementation with dried plum prevents ovariectomy-induced bone loss in C57BL/6 mice and modulates the immune response. *Journal of Nutrition*, 23(1):60-8.
5. Chandra Christopher L, Lucas, E.A., Clarke, S.L., Smith, B.J., & Kuvibidila, S. (2011). White button and shiitake mushrooms reduce the incidence and severity of collagen-induced arthritis in dilute brown non-agouti mice. *Journal of Nutrition*, 141(1):131-136.
6. Christopher LC, Marlow D, Doffay J, Clarke, S.L., Smith, B.J., & Kuvibidila, S. (2011). Differential effects of shiitake- and white button mushroom-supplemented diets on hepatic steatosis in C57/BL6 mice. *Food Chem Toxicol*, 49(12):3074-80. PMID: 21925564.
7. Davis MR, Shawron KM, Rendina E, Lucas, E.A., Smith, B.J., & Clarke, S.L. (2011). Hypoxia Inducible Factor 2-alpha is Translationally Repressed in Response to a Dietary Iron Deficiency in Sprague-Dawley Rats. *Journal of Nutrition*, 141(9): Epub 2011 Jul 13. PMID: 2175306.
8. Lucas, E.A., Li W, Peterson SK, Brown A, Kuvibidila S, Perkins-Veazie P, Clarke, S.L., & Smith, B.J. (2011). Mango modulates body fat and plasma glucose and lipids in mice fed high fat diet. *British Journal of Nutrition*, 106(10):1495-505.
9. Peterson SK, Lucas, E.A., Traore D, Christopher LC, French C, Clarke, S.L., Lightfoot SA, Smith, B.J., & Kuvibidila, S. (2011). Effects of Portabella mushrooms on collagen-induced arthritis, inflammatory cytokines, and body composition in dilute brown non-agouti (DBA1) mice. *Functional Foods in Health and Disease*, 1(9):279-296.
10. Lucas, E.A., Dumancas GG, Smith, B.J., Clarke, S.L., & Arjmandi BH (2009). Health benefits of bitter melon (*Momordica charantia*). Johnson CD, Lucas, E.A., Hooshmand S, Campbell S, Akhter MP, Arjmandi BH. Addition of fructooligosaccharides and dried plum to soy-based diets reverses bone loss in the ovariectomized rat. *Evid Based Complement Alternat Med*. 2008 Jul 30.
11. Lawrance, C.C., Lucas, E.A., Clarke, S.L., Smith, B.J., & Kuvibidila (2009). Differential effects of isoflurane and CO2 inhalation on plasma levels of inflammatory markers associated with collagen-induced arthritis in DBA mice. *Int. J. Immunopharmacol*, 9(7-8):807-9.
12. Dioum, A., Clarke, S.L., Ding, K., Repa, J., & Garcia, J.A. (2008). HIF-2a haploinsufficient mice have blunted retinal neovascularization due to impaired expression of a proangiogenic gene battery. *Investigative Ophthalmology and Visual Science*, Feb 8 [Epub ahead of print].
13. Valasek, M.A., Clarke, S.L., & Repa, J.J. (2007). Fenofibrate reduces intestinal cholesterol absorption via PPARalpha - dependent modulation of NPC1L1 expression in mouse. *Journal of Lipid Research*, August 28 [Epub ahead of print].
14. Clarke, S.L., Vasanthakumar, A., Anderson, S.A., Pondarre, C., Koh, C.M., Deck, K.M., Pitula, J.S., Epstein, C.J., Fleming, M.D., & Eisenstein, R.S. (2006). Iron-responsive degradation of iron-regulatory protein 1 does not require the Fe-S cluster. *EMBO Journal*, 25(3):544-53.
15. Pondarre, C., Antiochos, B.B., Campagna, D.R., Clarke, S.L., Greer, E.L., Deck, K.M., McDonald, A., Han, A.P., Medlock, A., Kutok, J.L., Anderson, S.A., Eisenstein, R.S., & Fleming, M.D. (2006). The mitochondrial ATP-binding cassette transporter Abcb7 is essential in mice and participates in cytosolic iron-sulfur cluster biogenesis. *Human Molecular Genetics*, 15(6):953-64.
16. Rincker, M.J., Clarke, S.L., Eisenstein, R.S., Link, J.E., & Hill, G.M. (2005). Effects of iron supplementation on binding activity of iron-regulatory proteins and the subsequent effect on growth performance and indices of hematological and mineral status of young pigs. *Journal of Animal Science*, 83(9):2137-45.

17. Bradly, J., Leibold, E.A., Harris, Z.L., Wobken, J.D., Clarke, S.L., Zumbrennen, K.B., Eisenstein, R.S., & Georgieff, M.K. (2004). The Influence of Gestational Age and Fetal Iron Status on Iron Regulatory Protein Activity and Iron Transporter protein Expression in Third Trimester Human Placenta. *American Journal of Physiology - Regulatory, Integrative and Comparative Physiology*, 287(4):R894-901.
18. Pitula, J.S., Deck, K.M., Clarke, S.L., Anderson, S.A., Vasanthakumar, A., & Eisenstein, R.S. (2004). Selective inhibition of the citrate-to-isocitrate reaction of cytosolic aconitase by phosphomimetic mutation of serine-711. Hauppauge, NY: Nova Science., *Proceedings of the National Academy of Sciences*, 101(30):10907-12.
19. Hill, M.R., Clarke, S.L., Rodgers, K., Thornhill, B., Peters, J., Gonzalez, F., & Gimble, J.M. (1999). Effect of Peroxisome Proliferator-Activated Receptor Alpha Activators on Tumor Necrosis Factor Expression in Mice During Endotoxemia. *Infection and Immunity*, 67(7):3488-3493.
20. Gimble, J.M., Robinson, C.E., Clarke, S.L., & Hill, M.R. (1998). Nuclear Hormone Receptors and Adipogenesis. *Critical Reviews in Eukaryotic Gene Expression*, 8(2):141-168.
21. Clarke, S.L., Robinson, C.E., & Gimble, J.M. (1997). CAAT/Enhancer Binding Proteins Directly Modulate Transcription for the Peroxisome Proliferator-Activated Receptor 2 Promoter. *Biochemical and Biophysical Research Communications*, 240:99-103.