

KATE J. CLAYCOMBE, Ph.D.

CURRICULUM VITAE

Contact Information:

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Education:

1999 Ph.D. Nutrition, University of Tennessee, Knoxville, TN.
1993 M.S. Biology, East Tennessee State University, Johnson City, TN.
1991 B.S. Biology, East Tennessee State University, Johnson City, TN.

Professional Positions:

2012-present Team Leader, Biology of Obesity Prevention Unit, USDA ARS, Grand Forks Human Nutrition Research Center

2012-present Adjunct Associate Professor, University of North Dakota School of Medicine, Biochemistry Department

2010-present Research Scientist, USDA ARS, Grand Forks Human Nutrition Research Center

Nov 2001- July 2010 Assistant Professor, Michigan State University, Department of Food Science and Human Nutrition, and Cell and Molecular Biology Program

1999-2001 Scientist III, Jean Mayer USDA/ Human Nutrition Research Center at Tufts University, Nutritional Immunology Laboratory (Dr. Simin N. Meydani)

1999-2002 Graduate Research Assistant, Nutrition Department, University of Tennessee at Knoxville

1993-1995 Research Technician, Nutrition Department, University of Tennessee at Knoxville

1991-1993 Graduate Research Assistant, Biological Sciences Department, East Tennessee State University

Awards, Honors, and Service:

- 2016 The Korean Nutrition Society Award
- 2015 Norman Kretchmer Memorial Award in Nutrition and Development, American Society of Nutrition
- 2016 Organizer and Chair, American Physiology Society Featured Topic Symposium
- 2015 USDA ARS Annual Scientist Research Performance Award
- 2015 Co-Chair and Organizer, USDA ARS GFHNRC-UND Med School, Nutritional Epigenetics Symposium, Grand Forks, ND
- 2013 Chair, Basic Science Section, The Obesity Society
- 2013 Session Co-Chair, 2013 Experimental Biology ASN Minsymposium "Obesity, Inflammation, and Nutrigenomics", Boston, M.A.

- 2012 Session co-chair and organizer, The American Society for Nutrition Symposium, Adipose Dysfunction Interaction of ROS and Inflammation, EB 2012, San Diego C.A., April 24.
- 2011 Chair, Nutrient and Gene Interaction Research Interest Section, American Society of Nutrition
- 2011 Chair, North Central Regional Multistate Research Project NC-1039 Group, n-3 Polyunsaturated Fatty acid and Human Health
- 2010 Chair, Molecular Mechanisms of Obesity Track, The Obesity Society Program Committee
- 2010 Session Chair, Symposium “ Inflammatory and Molecular Links Between Obesity and Chronic Diseases ”Symposium “Inflammation and Immune Dysfunction”, 2010 Annual Obesity Society Meeting, San Diego, CA.
- 2009 Session Chair, Symposium “Inflammation and Immune Dysfunction”, 2009 Annual Obesity Society Meeting, Washington D.C.
- 2009 Co-chair, “Cytokines and other Secreted Factors” session, 2009 Annual Obesity Society Meeting, Washington D.C.
- 2008 Chair, Symposium “Human adipose tissue as endocrine organ”, 2008 Annual Obesity Society Meeting, New Orleans, LA
- 2007 Session Co-Chair and Organizer, 2007 Experimental Biology Symposium “Obesity-associated Inflammation, Immune Dysfunction, and Effects of Nutrient and Lifestyle Modification”, Washington D.C.
- 2007 Expert Panel Member for the Life Science Research Office Special Meeting on Obesity, Inflammation and Nutrigenomics, FASEB office, Bethesda, MD.
- 2006 Session Co-chair of mini-symposiums, Nutrient Regulation of Immune function Session I and session II, 2006 Experimental Biology Meetings.
- 2005 Session Chair, Obesity Session for the “Creating Cardiovascular Innovations through Collaboration: Pfizer and MSU”
- 2005-2006, Chair, North Central regional Multistate Research Project, N-3 polyunsaturated fatty acid and Human Health
- 2004-2005, Secretary, North Central regional Multistate Research Project, N-3 polyunsaturated fatty acid and Human Health
- 2002 Chair of The 5th International Congress on Essential Fatty Acids and Eicosanoids, PUFAs/Eicosanoids, Inflammation and Immune Function Session
- 2000 The American Aging Association Paul E. Glenn Award for Postdoctoral Research
- 1998 North American Association of Obesity, Travel Award for the International Congress of Obesity
- 1998 FASEB Summer Conference Travel Award to graduate student, Snowmass, Colorado
- 1998 Chancellor’s Outstanding Graduate Student Teaching Award, University of Tennessee
- 1998 Proctor & Gamble Student Research Award, American Society for Nutritional Science
- 1997 Predoctoral Fellowship, American Society for Nutritional Science
- 1997 Proctor & Gamble Student Research Award, American Society for Nutritional Science
- 1997 The Physician’s Medical Education and Research Foundation Award
- 1996 Founder’s Award, 31st Annual Southeastern Regional Lipid Conference, November, Cashier, North Carolina
- 1995 Scholarly Activity Research Incentive Fund, University of Tennessee
- 1992 American Heart Association Graduate Student Summer Research Award
- 1992 Sigma-Xi, Grant-in Aid in Research

Invited Talks:

- 2016 FASEB Summer Research Conference, “Nutrition, Genetic and Epigenetic Programming and Immunometabolism” / Immunological Aspects of Obesity meeting, Big Sky, MT.
- 2016 University of North Dakota School of Medicine Annual Epigenetic symposium, “Effects of Maternal Diet on Beige Adipocyte and FGF21/G9a regulation”.
- 2016 American Physiology Society Featured Topic Symposium, “Introduction to Environmental Epigenetic Regulators of Obesity and Inflammation”
- 2015 University of North Dakota School of Medicine Seminar, “Effects of maternal Nutrients and Exercise on Energy Metabolism and Epigenetics”
- 2015 Korean Nutritional Society Annual Conference on “Nutrition and Omics: Challenges and Breakthrough”, Seoul, South Korea, November 6th, 2015.
- 2015 The 10th Annual Texas Conference on Health Disparities, “The Epigenetics of Obesity: Individual, Social, and Environmental Influences”, UNT Health Science Center, Fort Worth, TX, June 2015.
- 2014 FASEB Summer Research Conference, “Epigenetics and Nutrient Sensing in Adipose Tissue”, Nutrient Sensing and Metabolic Signaling, August 10-15, 2014, Big Sky, MT
- 2014 North Dakota State University, Department of Animal Science Spring Seminar Series, “Maternal diet-induced obesity and adipose tissue epigenetics”, April 11
- 2014 EB 2014 Minisymposium on Nutrient-Gene Interactions: Nutritional Regulation of Epigenetics. “Maternal low protein diet induces muscle mitochondrial respiration impairment, catch-up growth and PGC-1 α expression”, San Diego, CA, April 28
- 2013 Tufts University Spring Seminar Series, “Obesity and Adipose Tissue Epigenetics”, Boston, MA, November 11.
- 2013 EB 2013 Symposium, “Nutritional Epigenomics: A Portal to Disease Prevention, Boston, MA, April 23.
- 2013 School of Medicine and Health Sciences, University of North Dakota, “Obesity and Adipose Tissue Epigenetics”, 33rd Annual Frank Low Research Day, April 18.
- 2012 NIH workshop, “Overview of genetics and epigenetics of inflammation: role of nutrition”, “Inflammation and Nutritional Science for Programs/Policies and Interpretation of Research Evidence (INSPIRE), Eunice Kennedy Shriver National Institute of Child Health and Human Development, NIH, November 28-30.
- 2012 “Maternal Low protein-induced obesity and adipose tissue growth”, Department of Biology, University of North Dakota.
- 2012 EB 2012, The American Society for Pharmacology and Experimental Therapeutics Symposium: Perivascular (p) fat: Pharmacology, physiology and (P) function, ‘Emerging fields of study on the adipose tissue’, San Diego, CA, April 23.
- 2012 EB 2012, The American Society for Nutrition Minisymposium, Maternal low protein diet and postnatal high fat diet increases adipose imprinted gene expression, San Diego, CA, April 22.
- 2011 FASEB Summer Research Conference, “Nutrient Control of Metabolism and Cell Signaling”, Steamboat Springs, CO, August 7-12.
- 2011 FASEB Summer Research Conference, “Nutritional Immunology: Role in Health & Disease”, Carefree, AZ, July 5-12.

- 2011 Nutrition and Wellness Research Center Symposium: origin of Obesity: Maternal, Epigenetics, and Life Style”, Iowa State University, May 9-11.
- 2009 The Third Military Medical University, "Obesity- associated inflammation and immune dysfunction: Role of adipose tissue".
- 2009 Chongqing Medical University, "Obesity- associated inflammation and immune dysfunction: Role of adipose tissue".
- 2009 University of California at Davis, “Obesity-Associated Metabolic Dysregulation and Inflammation: Role of Adipose Tissue”.
- 2008 University of Illinois, “Obesity-associated Inflammation: Role of Adipose Tissue and Anti-inflammatory Nutrients”.
- 2007 FASEB Summer Conference, Nutritional Immunology: Its Role in Health and Disease, Tucson, AZ, August 2007.
- 2006 Invited speaker, 2nd Annual Nutrigenomics Conference at MSU, Department of Food Science and Human Nutrition and Department Radiology of MSU
- 2005 Invited speaker, Lillian Fountain Smith Conference, Colorado State University, Fort Collins, CO
- 2005 Invited speaker for seminar program, College of Veterinary Medicine at Michigan State University, Department of Pathobiology and Diagnostic Investigation
- 2004 Invited chair and speaker, “Obesity Session” for the “Creating Cardiovascular Innovations through Collaboration: Pfizer and MSU”
- 2004 FASEB Summer Conference on “Integrative Approaches to Understanding Obesity and its Metabolic and Clinical Consequences”, Pine Mountains Georgia
- 2003 FASEB Summer Conference on Impact of Nutritional Status on Immune Function and Health, Inflammation session, Obesity-induced systemic inflammation: role of Interleukin-6 (IL-6), C-reactive protein (CRP) and Complement System, Saxton Rivers, VT
- 2002 Invited Chair and speaker, The 5th International Congress on Essential Fatty Acids and Eicosanoids, PUFAs/Eicosanoids, Inflammation and Immune Function Session, Eicosanoids and Immune Function in the Aged: Dietary Modification, Taipei, Taiwan

Professional Committee Service and Memberships:

Professional and Committee Assignments and Memberships Assignments

- 2016-present Editorial board, Journal of Nutrition
- 2016-present Member, USDA ARS Plains Area Council for Engagement (PACE) Action Team
- 2015-present Editorial board, Clinical Epigenetics
- 2015-present Editorial board, Frontier in Immunology
- 2014 Search Committee Chair, Research Scientist Position at USDA ARS GF HNRC member and team leader
- 2013-present Member, American Nutrition Society, Program Committee
- 2012-present Editorial board, Journal of Nutritional Biochemistry
- 2012-present USDA ARS GF HNRC Animal Care and Use Committee member
- 2012 Working Group member, Inflammation and Nutritional Science for Programs/Policies and Interpretation of Research Evidence (INSPIRE), Eunice Kennedy Shriver National Institute of Child Health and Human Development, NIH
- 2012-present USDA ARS GF HNRC The Biology of Obesity Prevention CRIS Research Project Unit group member

- 2012 Institute of Medicine (IOM) Basic Science Agenda Subcommittee
 - 2012-2015 Editorial board, Physiological Genomics
 - 2012-2015 Editorial board, International Scholarly Research Network (ISRN) Nutrition Journal
 - 2012-present Member, American Heart Association Lipid II Peer Review Committee.
 - 2011 Search Committee Member, Research Leader Position at USDA ARS GF HNRC
 - 2010-present University of North Dakota, Epigenetics Focus Group
 - 2011 Member, NIH NCCAM P19 Study Section, 2011.
 - 2007-2009 AHA Region IV Cardiorenal peer review committee)
 - 2003-2004 American Society of Nutritional Science, Nutritional Immunology Research Interest Section, Steering Committee.
- Invited to review USDA NIFA grant proposals, August 2011.
 - Invited to review Obesity Center grant proposals, NIH, 2006.
 - Invited to review USDA NRI grants, 2005.

National/Professional Society Memberships

- The Obesity Society
- American Nutrition Society
- American Physiological Society
- Sigma Xi Scientific Research Society

Agency, Center, University and Departmental Committee Services

- USDA ARS GF HNRC Animal Care and Use Committee member (2012-present)
- University of North Dakota, Epigenetics Focus Group (2010-present)
- Search Committee Member, Research Leader Position at USDA ARS GF HNRC (2011)
- Search Committee member, Research Scientist Position at USDA ARS GF HNRC (2011)
- Michigan State University, Women's Advisory Committee to the Provost (2002-2005)
- Michigan State University, Appeals Board, (2002-2003)
- Michigan State University, Department of Food Science and Human Nutrition, Nutritional Sciences Undergraduate Committee, (2002-2010).
- Michigan State University, Department of Food Science and Human Nutrition, Spring Seminar Committee
- Michigan State University, Nutritional Immunology Program co-founder and organizer of visiting scholar and journal clubs (2003-2006).
- Michigan State University, Department of Food Science and Human Nutrition, Graduate Advisory Committee and chair, (2005-2006).
- Michigan State University, Department of Food Science and Human Nutrition, GM Trout Visiting Scholar Seminar Program

Ad hoc reviewer

- Journal of Nutrition
- Diabetes
- Journal of Nutritional Biochemistry
- Obesity
- Medicinal Food
- American Journal of Physiology

- Journal of Experimental Biology and Medicine
- International Journal of Obesity
- Obesity Journal
- Clinical and Experimental Pharmacology and Physiology

Publications:

Peer reviewed Journal Articles (published, in press & submitted)

1. **Kate J. Claycombe**, Emilie E. Vomhof-DeKrey, Rolando Garcia, William Thomas Johnson, Eric Uthus, and James N. Roemmich, Decreased beige adipocyte number and mitochondrial respiration coincide with reduced FGF21 gene expression in Sprague Dawley rats fed prenatal low protein and postnatal high fat diets, *J Nutr. Biochem*, 113: 113-121, 2016.
2. Archana Dhasarathy, James N. Roemmich and **Kate J. Claycombe**, Influence of Maternal Obesity, Diet and Exercise on Epigenetic Regulation of Adipocytes, In review, *Molecular Aspects of Medicine*, 2016.
3. Emilie Vomhof-DeKrey, James Roemmich, **Kate Claycombe**, Maternal low protein diet leads to placental angiogenic compensation via dysregulated M1/M2 macrophages and TNF α expression in Sprague-Dawley rats, In revision, *Journal of Reproductive Immunology*, 2016.
4. Rolando A. Garcia, , James N. Roemmich, and **Kate J. Claycombe**, Evaluation of Markers of Beige Adipocytes in White Adipose Tissue of the Mouse, *Nutr and Metabolism*, 18;13:24, 2016.
5. H. Zeng, **K. Claycombe**, and K. Reindl, Butyrate and deoxycholic acid play common and distinct roles in HCT116 human colon cell proliferation, *J Nutritional Biochem.*, In press, July 2015.
6. **Kate Claycombe**, Emilie E Vomhof-DeKrey; James N Roemmich; Turk Rhen; and Othman Ghribi, Maternal low protein diet causes body weight loss in male, neonate Sprague-Dawley rats involving UCP-1 mediated thermogenesis, In press, , *J Nutritional Biochem.*, 26:729-35, 2015.
7. **Kate J. Claycombe**, James N. Roemmich, LuAnn Johnson, Emilie E. Vomhof-DeKrey, and W. Thomas Johnson, Skeletal muscle Sirt3 expression and mitochondrial respiration are regulated by a prenatal low protein diet, 26(2):184-189, *J Nutritional Biochem.*, 2015.
8. **Claycombe KJ**, Brissette CA, Ghribi O. Epigenetics of Inflammation, Maternal Infection, and Nutrition. *Journal of Nutr.* , 145(5): 1109S-1115S, 2015.
9. Stephensen, C.B., Dawson, H.D., **Claycombe, K.J.** 2015. Impact of nutrition on immune function and the inflammatory response. *Journal of Nutr.*, 145(5):1039S-1108S, 2015.
10. H. Zeng, **K. Claycombe**, and K. Reindl, Butyrate and deoxycholic acid play common and distinct roles in HCT116 human colon cell proliferation, *J Nutritional Biochem.*, In press, July 2015.
11. **Kate Claycombe**, Emilie E Vomhof-DeKrey; James N Roemmich; Turk Rhen; and Othman Ghribi, Maternal low protein diet causes body weight loss in male, neonate Sprague-Dawley rats involving UCP-1 mediated thermogenesis, In press, , *J Nutritional Biochem.*, 26:729-35, 2015.
12. **Kate J. Claycombe**, James N. Roemmich, LuAnn Johnson, Emilie E. Vomhof-DeKrey, and W. Thomas Johnson, Skeletal muscle Sirt3 expression and mitochondrial respiration are regulated by a prenatal low protein diet, 26(2):184-189, *J Nutritional Biochem.*, 2015.

13. Martinez JA, Milagro FI, **Claycombe KJ**, Schalinske KL. Epigenetics in adipose tissue, obesity, weight loss, and diabetes. *Adv Nutr.*, 5:71-81, 2014.
14. Choi SW, **Claycombe KJ**, Martinez JA, Friso S, Schalinske KL. Nutritional epigenomics: a portal to disease prevention. *Adv Nutr.* 2013;4:530-2
15. Yan L, Graef GL, **Claycombe KJ**, Johnson LK. Effects of voluntary running and soy supplementation on diet-induced metabolic disturbance and inflammation in mice. *J Agric Food Chem.*, 61:9373-9, 2013.
16. **Claycombe KJ**, Uthus EO, Roemmich JN, Johnson LK, Johnson WT. Prenatal Low-Protein and Postnatal High-Fat Diets Induce Rapid Adipose Tissue Growth by Inducing Igf2 Expression in Sprague Dawley Rat Offspring. *J Nutr.* 143 (10): 1533-1539, 2013.
17. Zhou, Z, Zhou, Nepune, M., Zhou, H.R., Wu, D., Moustaid-Moussa, N., and **Claycombe, KJ**. Signal transducer and activator of transcription 3 (stat3) is differentially regulated under basal and leptin-stimulated conditions in the adipose CD34+ cell. In press, *Nutr Metab*, December 2012.
18. Picklo, M., **Claycombe, K.J.**, Meydani, M., Adipose dysfunction, interaction of reactive oxygen species and inflammation. *Adv. Nutr.* 3(5):734-735, 2012.
19. Zhou Zhou, Muraleedharan Nair, and **Kate J Claycombe**, Synergistic inhibition of interleukin-6 production in adipose stem cells by tart cherry anthocyanins and atorvastatin, *Phytomedicine*, 19(10): 878-881, 2012.
20. Nalin Siriwardhana, Nishan S Kalupahana, Sarah Fletcher, Wenting Xin, **Kate J Claycombe**, Ling Zhao, Arnold M Saxton, Annie Quignard-Boulangue, and Naima Moustaid-Moussa, N-3 and n-6 polyunsaturated fatty acids differentially regulate adipose angiotensinogen and other inflammatory adipokines, in part via NF-kB dependent mechanisms, *J Nutr Biochem.* 23(12): 1661-1667, 2012.
21. Kalupahana NS, Moustaid-Moussa N, **Claycombe KJ**. Immunity as a link between obesity and insulin resistance. *Mol Aspects Med.* 33:26-34, 2012.
22. Nishan S. Kalupahana, **Kate J. Claycombe**, Naima Moustaid-Moussa, (n-3) Fatty Acids Alleviate Adipose Tissue Inflammation and Insulin Resistance: Mechanistic Insights, *Adv Nutr*, 2(4): 304-316, 2011.
23. Hsueh HW, Zhou Z, Whelan J, Allen KG, Moustaid-Moussa N, Kim H, **Claycombe KJ**. Stearidonic and eicosapentaenoic acids inhibit interleukin-6 expression in ob/ob mouse adipose stem cells via Toll-like receptor-2-mediated pathways. *J Nutr.* 141:1260-6, 2011.
24. Kalupahana NS, **Claycombe KJ**, Newman SJ, Stewart T, Siriwardhana N, Matthan N, Lichtenstein AH, Moustaid-Moussa N. Eicosapentaenoic acid prevents and reverses insulin resistance in high-fat diet-induced obese mice via modulation of adipose tissue inflammation. *J Nutr.* 140:1915-22, 2010.
25. Shin AC, MohanKumar SM, Sirivelu MP, **Claycombe KJ**, Haywood JR, Fink GD, MohanKumar PS. Chronic exposure to a high-fat diet affects stress axis function differentially in diet-induced obese and diet-resistant rats. *Int J Obes*, 34:1218-26, 2010.
26. Han D, Yang B, Olson LK, Greenstein A, Baek SH, **Claycombe KJ**, Goudreau JL, Yu SW, Kim EK. Activation of autophagy through modulation of AMP-activated protein kinase protects pancreatic beta-cells from hyperglycemia, *Biochem J*, 425: 541-55, 2009.
27. Wortman P, Miyazaki Y, Kalupahana NS, Kim S, Hansen-Petrik M, Saxton AM, **Claycombe KJ**, Voy BH, Whelan J, Moustaid-Moussa N. N-3 and n6 polyunsaturated fatty acids differentially modulate prostaglandin E secretion but not markers of lipogenesis in adipocytes., *Nutr Metab.* 6:5, 2009.
28. Aziz, K, Berger, K, **Claycombe, KJ**, Ma, H, Huang, R, Patel, R, Abela, G.S. Non-invasive detection and localization of vulnerable plaque and arterial thrombosis using CTA/PET, *Circulation.* 117: 2061-2070, 2008.

29. **Claycombe, K.** King, L. Fraker, P. A role for leptin in sustaining lymphopoiesis and myelopoiesis. *PNAS*. 105: 2017-2021, 2008.
30. Chun, OK, Chung, SJ, **Claycombe, KJ**, Song, WO. Serum C-reactive protein concentrations are inversely associated with dietary flavonoid intake in U.S. adults, *J. Nutr.* 138: 753-760, 2008.
31. Zhou, HR, Kim, EK, Kim, H, **Claycombe, KJ**. Obesity -associated mouse adipose stem cell secretion of monocyte chemotactic protein-1 (MCP-1), *Am. J. Physiol.* 293: E1153-1158, 2007.
32. Harkins, JM, Moustaid-Moussa, N, Penner, KM, Pestka, JJ, Chung, YJ, North, CM, **Claycombe, KJ**. Expression of interleukin-6 is greater in preadipocytes than in adipocytes of 3T3-L1 cells and C57BL/6J and ob/ob mice. *J Nutr.* 134: 2673-2677, 2004.
33. Wang Y, Jones Voy B, Urs S, Kim S, Soltani-Bejnood M, Quigley N, Heo YR, Standridge M, Andersen B, Dhar M, Joshi R, Wortman P, Taylor JW, Chun J, Leuze M, **Claycombe K**, Saxton AM, Moustaid-Moussa N. The human fatty acid synthase gene and de novo lipogenesis are coordinately regulated in human adipose tissue. *J. Nutr.* 134: 1032-1038, 2004.
34. Wu D, Marko M, **Claycombe K**, Paulson KE, Meydani SN. Ceramide-induced and age-associated increase in macrophage COX-2 expression is mediated through upregulation of NF- kappa B activity. *J Biol Chem.* 278: 0983-10992, 2003.
35. Heo YR, **Claycombe K**, Jones BH, Wright P, Truett GE, Zemel M, Banz W, Maher M, Moustaid-Moussa N. Effects of Fatty (fa) Allele and High-Fat Diet on Adipose Tissue Leptin and Lipid Metabolism. *Horm Metab Res.* 34: 686-690, 2002.
36. **Claycombe KJ**, Wu D, Meydani SN. Eicosanoids and immune function in the aged: dietary modification. *Pro. Int. Con. Essen. Fatty Acids and Eicosanoids.* 1: 227-229, 2002.
37. **Claycombe K.J.**, Wu D., Palmer H., Nikolova-Karakashian M., Merrill Jr. A.H., Paulson E. Meydani S.N. Age-associated increase in macrophage (Mø) cyclooxygenase-2 (cox-2) expression is mediated by ceramide. *J. Biol. Chem.* 277: 30784-30791, 2002.
38. Kim S, Whelan J, **Claycombe K**, Taylor J, Moustaid-Moussa N. Angiotensin II increases leptin secretion by adipocytes via a prostaglandin-independent mechanism. *J Nutr.* 132: 1135-1140, 2002.
39. Koga T, **Claycombe K.J**, Meydani M. homocysteine increases monocyte and T cell adhesion to human aortic endothelial cells. *Atherosclerosis.* 16: 365-374, 2002.
40. Kim S, Dugail I, Standridge M, **Claycombe K**, Chun J, Moustaid-Moussa N. Angiotensin II- responsive element is the insulin-responsive element in the adipocyte fatty acid synthase gene: role of adipocyte determination and differentiation factor 1/sterol-regulatory-element-binding protein 1c. *Biochem J.* 357: 899-890, 2001.
41. **Claycombe KJ**, Meydani SN. Vitamin E and genome stability. *Mutat Res.* 475:37-44, 2001.
42. **Claycombe, KJ**, Jones, BH, Guo, Y, Wilkison, WO, Zemel, MB, Chun, J. Moustaid, N. Transcriptional regulation of the adipocyte fatty acid synthase gene by the agouti gene products: interaction with insulin. *Physiol. Genom.* 3: 157-162, 2000.
43. **Claycombe, KJ**, Xue, B, Maynatte, RL, Zemel, MB, Moustaid- Moussa, N. Regulation of leptin by insulin and agouti. *Physiol. Genom.* 2: 101-105, 2000.
44. Moustaid-Moussa, N, **Claycombe, KJ**. The yellow mouse obesity syndrome and mechanism of agouti-induced obesity. *Obe. Res.* 7:506-514, 1999.
45. Jones, BH, Standridge, MK, **Claycombe, KJ**, Smith, PJ, Moustaid-Moussa, N. Glucose induces expression of stearoyl-CoA desaturase in 3T3-L1 adipocytes. *Biochem. J.* 335: 405-408, 1998.

46. **Claycombe, KJ**, Jones, BH, Standridge, MK, Guo, Y, Chun, JT, Taylor, JW, Moustaid-Moussa, N. Insulin increases fatty acid synthase gene transcription in human adipocytes. *Am. J. Physiol.* 274: R1253-R1259, 1998.
47. Mancuso, P, Whelan, J, DeMichele, SJ, Snider, CC, Guszczka, JA, **Claycombe, KJ**, Smith, GT, Gregory, TJ, Karlstad, M.D. Effects of eicosapentaenoic and gamma-linolenic acid on lung permeability and alveolar macrophage eicosanoid synthesis in endotoxic rats. *Crit. Care. Med.* 25: 523-532, 1997.
48. **Claycombe, KJ**, Lee, DW, Miller, H.A. Proportions of rat ANP-secreting cells that are cardiomyocytes and that synthesize the hormone. *Am. J. Physiol.* 268: H265-270, 1995.

Additional Publications

Book chapters

Kate J. Claycombe, Hauwei Zeng, Gerald F Combs, *Nutrition and Epigenetics*, 2015 (Chapter 12), *Dietary Effects on Adipocyte metabolism and Epigenetic*, CRC Press, Boca Raton, FL.

Meydani SN, Claycombe KJ, Sacristan C. Vitamin E and gene expression. 2001 (Chapter 16) 393-424. *Nutrition-Gene Interactions in Health & Disease*. (1st Edition, Modern Nutrition Series), CRC Press, Boca Raton, FL.

Bulletins

1. Claycombe, K.J., 2004 “C-reactive protein, Obesity and Immune System”, MAES/MSU
2. Claycombe, K.J., 2005“Montmorency tart cherries: The healing fruit”, Cherry Marketing Institute
3. Claycombe, K.J., 2008“Researchers make discoveries on what does and does not affect immune system”, MSU News Bulletin

Newspaper article

Chicago Tribune article. "Salmon Dilemma, With higher PCB levels showing up in farmed variety, are the health benefits worth the risk?", Interviewed and quoted in the article, January 28, 2004.

Press Release

“Effects of Cherry Flavonoids on Cardiovascular Disease Biomarkers”, Quoted in the press conference during the National Cherry Festival by Cherry Marketing Institute, Traverse City, Michigan, April 2004.

Research Support

On-going:

- 2016-2018, USDA ARS Research Associate Program Class of 2016, Maternal obesity, The placental microbiome and in utero short chain fatty acid-mediated offspring obesity, PI.
- NIH COBRE Epigenomics of Development and Disease, UND, Pilot Grant, April 2015-16, Co-PI,
- USDA Agricultural Research Service Project #5450-51000-047-00D, August 2010-present, PI.

Pending:

- 2016-2019, U.S. Global Development Lab at USAID NIH, the Collaboration for the Partnerships for Enhanced Engagement in Research (PEER) program, Great Ethiopian Famine Families Cohort Study of Prenatal Epigenetic Outcomes project, Claycombe (Co-PI)
- 2016-2020, Biosystems Institute for the Security Of Nutrition (BISON), North Dakota State University, Research and Discovery Grand Challenge Initiative, Claycombe (Co-PI)
- 2016-2019, American Heart Association, Embryo-maternal interactions during early pregnancy: Effects of assisted reproductive technologies on utero-placental vascularization and embryo development, Claycombe (Collaborator)

Funded and completed:

- NIH COBRE Epigenomics of Development and Disease, UND, PI, Pilot Grant, 2014-15.
- 2015 USDA ARS professional activity Fund, The obesity Society, Basic Science Section Annual Meeting and graduate student and postdoc poster competition, PI
- 2014 USDA ARS professional activity Fund, American Society for Nutrition, Nutrient and Gene Interaction Research Interest Section Symposium, PI
- 2012, USDA ARS professional activity Fund
- 2007, Tekeda Pharmaceutical Company, Educational Grant Award for FASEB Summer Conference, Nutritional Immunology: Its Role in Health and Disease.
- Office of Vice President of Research and Graduate Studies at the Michigan State University, Intramural Research Grants Program for New Investigator, “Obesity-Associated Inflammation and Adipose Tissue”, 2005-2007, Role: PI.
- Office of Vice President of Research and Graduate Studies at the Michigan State University, Biomedical and Health Research Initiative, Cardiovascular Group, 2005-2007, Role: Co-investigator. 2006-2009, in postdoc salary support.
- 2007, Tekeda Pharmaceutical Company, Educational Grant Award for Experimental Biology Symposium.
- Project Green, Michigan State University Agricultural Experimental Station, Project Continuation Award “Preventive Effects of Tart Cherries on Cardiovascular Diseases Risk Biomarkers: C- Reactive Protein and Interleukin-6”, 2005-2006, Role: PI.
- Michigan Agricultural Experimental Station, Multistate Research Project Fund, #MICL02036, “N-3 Polyunsaturated Fatty Acid and Human Health and Disease”, 2002-2007, Role: PI.
- Cherry Marketing Institute, Research Grant, Preventive Effects of Tart Cherries on Cardiovascular Diseases Risk Biomarkers: C- Reactive Protein and Interleukin-6, 2004-2005, Role: PI.
- ROIP research seed grant, Michigan State University, College of Human Ecology, 2002-2003, “obesity-induced Cardiovascular Diseases: Inhibitory Effects of N-3 Fatty acid and vitamin E on Plasma C-reactive Protein (CRP) and interleukin-6 (IL-6) concentrations”, Role: PI.