ROBERT S. CHAPKIN

March 2021

Distinguished Professor
Allen Endowed Chair in Nutrition & Chronic Disease Prevention
NCI R35 Outstanding Investigator
Texas A&M University
111 Cater-Mattil Hall
2253 TAMU
College Station, TX 77843-2253
r-chapkin@tamu.edu
http://chapkinlab.tamu.edu
https://orcid.org/0000-0002-6515-3898

EDUCATION

BSc., Nutrition and Biochemistry, June 1981
University of Guelph, Ontario, Canada

MSc., Nutrition, February 1983
University of Guelph, Ontario, Canada

Ph.D., Nutrition and Physiological Chemistry, December 1986
University of California, Davis, California

LEADERSHIP

Chair, Intercollegiate Faculty of Nutrition, Texas A&M University, 2002 - 2005
Deputy Director, NIEHS Center for Translational Environmental Health Research, 2013 - 2016
Chair, American Institute for Cancer Research (AICR) Study Section Panel, 2014 – 2019
President - Sigma Xi Texas A&M University Chapter, 2015 – 2016
Allen Endowed Chair in Nutrition & Chronic Disease Prevention, 2017 - Present

MENTORSHIP

Graduated 10 M.S., 5 M.S./R.D. and 24 Ph.D. students and trained 27 Post-Doctoral fellows. I also recently received a Distinguished Achievement Award in Graduate Mentoring from Texas A&M University (2017). This demonstrates my dedication to mentorship and the training of the next generation of scientists in Nutrition Life Sciences and Cancer Biology.

HONORS AND AWARDS

From the NIH "First Award" in 1988 to launch my university career to my appointment as Distinguished Professor in 2014, the top honor at Texas A&M University, I have received numerous awards to acknowledge my research accomplishments and status in my field, e.g., NIH R35 Outstanding Investigator (2016-2023) and the American Association for the Advancement of Science (AAAS) Fellow (2019).

SCHOLARSHIP

Received over $67 million in peer reviewed funding over the past 32 y at TAMU has resulted in:

- 242 peer-reviewed publications with 11 additionally submitted
- 35 invited reviews
- 27 book chapters

H-Index = 71, i10-Index = 246

PROGRAM DESCRIPTION

Program Description: I am an expert in dietary chemoprevention of colon cancer and inflammatory bowel diseases and have been continuously funded by NIH/NCI for the past 32 years. Highly significant contributions to cancer chemoprevention in five specific areas have been made during my career: (i) establishment of models for cancer prevention studies, (ii) elucidation of colon cancer epigenetics and signal transduction processes in the GI tract, (iii) investigation of the role of adaptive/innate immune response and chronic inflammation as a critical factor in colon cancer development, and its modulation by diet, (iv) membrane biology and nutritional modulation of epithelial and immune cell membrane structure and function, and (v) development of novel noninvasive Systems Biology-based methodologies to monitor diet/gene expression profiles and its application to translational research. These activities, together with a history of basic and translational (biomarkers) research using cutting-edge technologies, demonstrate my scientific credentials which make me a leader in the chronic disease prevention field.

In terms of administrative experience, I have served as Chair of the Intercollegiate Faculty of Nutrition, Deputy Director of the Center for Translational Environmental Health Research (NIH P30ES023512), as well as Director of an NIEHS Pilot Project Grants Program and Director of the Genomics & Bioinformatics Core at Texas A&M. I have utilized my extensive team building skills to reach across silos at the university to build a synergistically motivated NIEHS P30 Center for Translational Environmental Health Research. The Center incorporated programs in Nutrition & Toxicology, the Colleges of Engineering, Science, Veterinary Medicine and Biomedical Sciences, and the Health Science Center (TAMHSC), home to the School of Medicine, School of Public Health, School of Pharmacy, Nursing, Dentistry, the Institute for Biosciences and Technology, as well as faculty from Baylor College of Medicine and the University of Houston. My strong leadership and team building skills have resulted in formulation of several training grants designed to train the next generation of researchers in the areas of: **(i)** Nutrition, **(ii)** Exercise Physiology, **(iii)** Metabolism, **(iv)** Preclinical Disease Models, **(v)** Biostatistics & Computational Biology, and **(vi)** Education & Outreach. Mentors in these programs are housed in 8 components of Texas A&M University and are currently also supported in part by an *NCI-funded T32 training program* (T32 CA090301) in Biostatistics, Bioinformatics, Nutrition and Cancer at Texas A&M and an NIEHS-funded *T32 graduate training program* (T32 ES026568) *in Regulatory Science*.

EMPLOYMENT

1986-1988	Postdoctoral fellow, Immunology-Tumor Biology Laboratory, Department of Cell Biology and Human Anatomy, School of Medicine, University of California, Davis.
1988-1993	Assistant Professor, Human Nutrition and Molecular & Cell Biology Sections, Department of Animal Science, Texas A&M University.
1994-1999:	Associate Professor, Human Nutrition and Molecular & Cell Biology Sections, Department of Animal Science, Texas A&M University.
2000-2013	Professor, Department of Nutrition, Texas A&M University
2014 – present	Distinguished Professor, Department of Nutrition, Texas A&M University

PROFESSIONAL EXPERIENCE

Present:	**Distinguished Professor, Allen Endowed Chair in Nutrition & Chronic Disease Prevention and NCI (R35) Outstanding Investigator**, Regents Professor and University Faculty Fellow, Program in Integrative Nutrition & Complex Diseases, Departments of Nutrition, Biochemistry & Biophysics, Veterinary Integrative Biosciences, Texas A&M University and the Department of Microbial Pathogenesis & Immunology, Texas A&M Health Science Center.
2017-Present:	Co-Director, NCI T32 Biostatistics, Bioinformatics, Nutrition and Cancer Training Program
2016:	Editorial Board: Current Pharmacology Reports
2013-2016:	Deputy Director, NIEHS P30 Center for Translational Environmental Human Research.
2016-2023:	National Cancer Institute (NCI) R35 Outstanding Investigator
2015-Present:	Editorial Board: Frontiers in Immunology and Nutrition
2015-2016:	President - Sigma Xi Texas A&M University Chapter
2014-Present:	Distinguished Professor, Texas A&M University System Chair, American Institute for Cancer Research (AICR) Study Section Panel
2011-Present:	Deputy Director, NIEHS Center for Translational Environmental Human Research (CTEHR) at Texas A&M/Baylor College of Medicine
2011:	Distinguished Achievement Award – Research, Texas A&M University
2010-Present:	Regents Professor, Texas A&M University System
2002-2005:	Chair, Faculty of Nutrition, Texas A&M University
2002-2005:	Standing Member of the Metabolic Pathology and the Chemo-Dietary Prevention (CDP) Study Sections, National Cancer Institute, NIH
2001-2007:	Faculty Fellow - Texas A&M University
1999-2000:	Chair, Diet-Cancer Research Interest Section, American Society for Nutritional Sciences (ASN).
1999-2007:	Chair of the Pilot Project Program and Member of the Center for Environmental and Rural Health, NIEHS/Texas A&M University
1992:	Pew National Nutrition Program Scholar. Sabbatical in the laboratory of Dr. Jorge Moscat, Department of Molecular Biology, Hospital Gregorio Maranon, Madrid, Spain.
1991-Present:	Associate Member of the Department of Biochemistry and Biophysics, Texas A&M University.

PROFESSIONAL SOCIETY MEMBERSHIPS

American Association for the Advancement of Science 1989-Present
American Society for Nutritional Sciences, 1989-Present
Sigma Xi, 1991-Present
American Association for Cancer Research, 1993-Present
American Society for Cell Biology, 2004-Present
American Association of Immunologists, 2006-Present
American Physiological Society, 2012-Present
International Society for Stem Cell Research, 2013-Present
Biophysical Society, 2020

EDITORIAL BOARDS

Editorial Board of *Prostaglandins, Leukotrienes and Essential Fatty Acids*, 1989-Present
Editorial Board of *Chemistry and Physics of Lipids*, 2005-Present

Honorary Editorial Board Member of *Cell Communication Insights*, 2008-2017
Editorial Board of *Advances in Nutrition: An International Review Journal*, 2010-2014
Editorial Board of the *British Journal of Nutrition*, 2011-2013
Review Editor – *Frontiers in Nutrigenomics*, 2011-2013
Review Editorial Board – *Frontiers in Gastrointestinal Cancer*, 2012-2014
Editorial Board of the *Journal of Nutrition*, 2002-2004
Associate Editor, American Society for Nutritional Sciences Newsletter, 1993-1999

HONORS AND AWARDS

American Association for the Advancement of Science (AAAS) Fellow (Biological Sciences), 2019
Allen Endowed Chair in Nutrition & Chronic Disease Prevention, Texas A&M University, 2017-Present
National Cancer Institute (NCI) R35 Outstanding Investigator Award, 2016-2023
Texas A&M University Association of Former Students Distinguished Achievement Award in Graduate Mentoring, 2017
Texas A&M AgriLife Vice Chancellor's Award in Excellence, January 16, 2016
Texas A&M University System Distinguished Professor, 2014-Present
American Society for Nutrition (ASN) Osborne and Mendel Award, 2013
Texas A&M University Association of Former Students Distinguished Achievement Award in Research, 2011
Texas A&M University System Regents Professor, 2010-Present
Vegetable & Fruit Improvement Center, Texas AgriLife Research Director's Award, 2009
NASA Space Act Award, 2008
Senior Faculty Fellow Award, Texas A&M University, 2007
Sigma Xi Distinguished Scientist Award, Texas A&M University Chapter, 2006
Texas A&M University Faculty Fellow Award, 2001-Present
Texas Agricultural Experimentation Station (TAES) Faculty Fellow Award, 2000
American Society for Nutrition (ASN) Bio Serv Award in Experimental Animal Nutrition, 1996
American Oil Chemists' Society, Outstanding Paper Presentation, May 1995
PEW National Nutrition Program Faculty Scholar Award, 1991-1992
National Institutes of Health "First Award", July 1989-June 1994

PATENTS

United States Patent, "Noninvasive detection of colonic biomarkers using fecal messenger RNA." July 10, 2001 (6,258,541). R.S. Chapkin, L.A. Davidson and J.R. Lupton.

United States Provisional Patent, "Gene expression profiles from colonocyte mRNA isolated from feces." August 29, 2005 (TAMU 1014). R.S. Chapkin, L.A. Davidson, N. Wang and J.R. Lupton.

United States Provisional Patent, "Non-invasive diagnosis of gastrointestinal diseases".
Application No. 62/578,760, filed October 30, 2017. R.S Chapkin, C. Whitfield-Cargile, L.A. Davidson, K. He, L.A. Davidson and N. Cohen.

PUBLICATIONS

Papers

1. L.U. Thompson, K. Boland, R.S. Chapkin and J.D. Jones. Nutritional evaluation of residual meal from rapeseed protein concentration process in rats. Nutrition Reports International 25(4):621-628, 1982.

2. R.S. Chapkin, B. Haberstroh, T. Liu and B.J. Holub. Characterization of the individual phospholipids and their fatty acids in serum and high-density lipoproteins of the renal patient on long term maintenance hemodialysis. Journal of Laboratory and Clinical Medicine 101:726-735, 1983. PMID: 6833842

3. R.S. Chapkin, B. Haberstroh, T. Liu and B.J. Holub. Effect of vitamin E supplementation on serum and high-density lipoprotein-cholesterol in renal patients on maintenance hemodialysis. American Journal of Clinical Nutrition 38:253-256, 1983. PMID: 6881082

4. R.S. Chapkin and V.A. Ziboh. Inability of skin enzyme preparations to biosynthesize arachidonic acid from linoleic acid. Biochemical and Biophysical Research Communications 124(3):784-792, 1984. PMID: 6439197

5. R.S. Chapkin and V.A. Ziboh. Metabolism of essential fatty acids by human epidermal enzyme preparations: Evidence of chain elongation. Journal of Lipid Research. 27:945-954, 1986. PMID: 3097227

6. R.S. Chapkin, V.A. Ziboh and J.L. McCullough. Dietary influences of evening primrose and fish oils on skin of essential fatty acid deficient guinea pigs. Journal of Nutrition 117:1360-1370, 1987. PMID: 3625311

7. R.R. Isseroff, V.A. Ziboh, R.S. Chapkin and D.T. Martinez. Conversion of exogenous linoleic acid into arachidonic acid by cultured murine and human keratinocytes: Evidence for an alternate pathway. Journal of Lipid Research 28:1342-1349, 1987. PMID: 2448410

8. V.A. Ziboh and R.S. Chapkin. Biologic significance of polyunsaturated fatty acids in the skin. Archives of Dermatology 123:1686a-1690, 1987. PMID: 3688908

9. R.S. Chapkin, S.D. Somers, L. Schumacher and K.L. Erickson. Fatty acid composition of macrophage phospholipids in mice fed fish or borage oil. Lipids 23:380-383, 1988. PMID: 3398727

10. R.S. Chapkin, C.C. Miller, S.D. Somers and K.L. Erickson. Utilization of dihomogammalinolenic acid (8,11,14-eicosatrienoic acid) by murine peritoneal macrophages. Biochimica et Biophysica Acta 959:322-331, 1988. PMID: 3128337

11. R.S. Chapkin, S.D. Somers and K.L. Erickson. Inability of murine peritoneal macrophages to convert linoleic acid into arachidonic acid: Evidence of chain elongation. Journal of Immunology 140:2350-2355, 1988. PMID: 3127464

12. R.S. Chapkin, C.C. Miller, S.D. Somers and K.L. Erickson. Ability of monohydroxyeicosatrienoic acid (15-OH-20:3) to modulate macrophage arachidonic acid metabolism. Biochemical and Biophysical Research Communications 153:799-804, 1988. PMID: 3132920

13. R.S. Chapkin, S.D. Somers and K.L. Erickson. Dietary manipulation of macrophage phospholipid classes: Selective increase of dihomogammalinolenic acid. Lipids 23:766-770, 1988. PMID: 3185109

14. N.E. Hubbard, R.S. Chapkin and K.L. Erickson. Inhibition of linoleate-enhanced metastasis of a transplantable mouse mammary tumor by indomethacin. Cancer Letters 43:111-120, 1988. PMID: 3203321

15. R.S. Chapkin, N.E. Hubbard, D.K. Buckman and K.L. Erickson. Linoleic acid metabolism in metastatic and nonmetastatic murine mammary tumor cells. Cancer Research 49:4724-4728, 1989. PMID: 2503244

16. S.D. Somers, R.S. Chapkin and K.L. Erickson. Alteration of *in vitro* murine peritoneal macrophage function by dietary enrichment with eicosapentaenoic acid and docosahexaenoic acids in menhaden fish oil. Cellular Immunology 123:201-211, 1989. PMID: 2550148

17. R.S. Chapkin and C.C. Miller. Chain elongation of eicosapentaenoic acid in the macrophage. Biochimica et Biophysica Acta 1042:265-267, 1990. PMID: 2302426

18. D.K. Buckman, R.S. Chapkin, and K.L. Erickson. Modulation of mouse mammary tumor growth and linoleic acid enhanced metastasis by oleic acid. Journal of Nutrition 120:148-157, 1990. PMID: 2313378

19. R.S. Chapkin and S.L. Carmichael. Effect of dietary blackcurrant seed oil on macrophage subclasses of choline and ethanolamine glycerophospholipids. Journal of Nutrition 120:825-830, 1990. PMID: 1974284

20. R.S. Chapkin, N.E. Hubbard and K.L. Erickson. 5-series peptido-leukotriene synthesis in mouse peritoneal macrophages: Modulation by dietary n-3 fatty acids. Biochemical and Biophysical Research Communications 171:764-769, 1990. PMID: 2119578

21. C.C. Akoh and R.S. Chapkin. Composition of mouse peritoneal macrophage phospholipid molecular species. Lipids 25:613-617, 1990. PMID: 2079868

22. R.S. Chapkin and S.L. Carmichael. Effects of dietary n-3 and n-6 polyunsaturated fatty acids on macrophage phospholipid classes and subclasses. Lipids 25:827-834, 1990. PMID: 2093145

23. R.S. Chapkin and K.J. Coble. Remodeling of mouse kidney phospholipid classes and subclasses by diet. Journal of Nutritional Biochemistry 2:158-164, 1991.

24. R.S. Chapkin, C.C. Akoh and C.C. Miller. Influence of dietary n-3 fatty acids on macrophage glycerophospholipid molecular species and peptido leukotriene synthesis. Journal of Lipid Research 32:1205-1213, 1991. PMID: 1940643

25. R.S. Chapkin and K.J. Coble. Utilization of gammalinolenic acid by mouse peritoneal macrophages. Biochimica et Biophysica Acta 1085:365-370, 1991. PMID: 1655039

26. D.Y. Lee, J.R. Lupton and R.S. Chapkin. Prostaglandin profile and synthetic capacity of the colon: Comparison of tissue sources and subcellular fractions. Prostaglandins 43:143-164, 1992. PMID: 1542741

27. Y.Y. Fan and R.S. Chapkin. Enhancement of mouse peritoneal macrophage prostaglandin E_1 by dietary gamma-linolenic acid. Journal of Nutrition 122:1600-1606, 1992. PMID: 1322453

28. R.S. Chapkin, L.D. Davidson and L.A. Davidson. Phospholipid molecular species composition of mouse liver nuclei: Influence of dietary n-3 fatty acid ethyl esters. Biochemical Journal 287:237-240, 1992. PMID: 1417777 PMCID: PMC1133149

30. H. Aukema, R.S. Chapkin, K. Tomobe, H. Takahashi and B.J. Holub. *In vivo* detection of phosphatidylinositol-3-phosphate and association with polycystic renal disease. Experimental & Molecular Pathology 57:39-46, 1992. PMID: 1327862

31. R.S. Chapkin, J. Gao, D-Y K. Lee, and J.R. Lupton. Effect of dietary fibers and fats on rat colon protein kinase C activity: Correlation to cell proliferation. Journal of Nutrition 123:649-655, 1993. PMID: 8385211

32. D.E. Barre, B.J. Holub and R.S. Chapkin. The effect of borage oil supplementation on human platelet aggregation, thromboxane B_2, prostaglandin E_1 and E_2 formation. Nutrition Research 13:739-751, 1993.

33. D.C. Gaudette, H.M. Aukema, C.A. Jolly, R.S. Chapkin and B.J. Holub. Mass and fatty acid composition of the 3-phosphorylated PIP_2 isomer in stimulated human platelets. Journal of Biological Chemistry 268:13773-13776, 1993. PMID: 8390977

34. E. Berra, M.T. Diaz-Meco, I. Dominguez, M.M. Municio, L. Sanz, J. Lozano, R.S. Chapkin and J. Moscat. Protein kinase C zeta isoform is critical for mitogenic signal transduction. Cell 74:555-563, 1993. PMID: 7688666

35. D.Y.K. Lee, R.S. Chapkin and J.R. Lupton. Dietary modulate colonic cell proliferation in an interactive site-specific manner. Nutrition and Cancer 20:107-118, 1993. PMID: 8233976

36. Y.Y. Fan and R.S. Chapkin. Phospholipid sources of metabolically elongated gammalinolenic acid: Conversion to prostaglandin E_1 in stimulated mouse macrophages. Journal of Nutritional Biochemistry 4:602-607, 1993.

37. K.H. Fowler, R.S. Chapkin, and D.N. McMurray. Effects of purified dietary n-3 ethyl esters on murine T-lymphocyte function. Journal of Immunology 151:5186-5197, 1993. PMID: 8228217

38. D.Y. Lee, J.R. Lupton, H.M. Aukema and R.S. Chapkin. Dietary fat and fiber alter rat colonic mucosal lipid mediators and cell proliferation. Journal of Nutrition 123:1808-1817, 1993. PMID: 8229295

39. K.H. Fowler, D.N. McMurray, Y.Y. Fan, H.M. Aukema and R.S. Chapkin. Purified dietary n-3 polyunsaturated fatty acids alter diacylglycerol mass and molecular species composition in concanavalin A stimulated murine splenocytes. Biochimica et Biophysica Acta 1210:89-96, 1993. PMID: 8257724

40. L.A. Davidson, Y.H. Jiang, J.N. Derr, H.M. Aukema, J.R. Lupton and R.S. Chapkin. Protein kinase C isoforms in human and rat colonic mucosa. Archives of Biochemistry and Biophysics 312:547-553, 1994. PMID: 8037470

41. N.E. Hubbard, R.S. Chapkin and K.L.Erickson. Effect of inseed oil on tumoricidal activity and altered eicosanoid production in murine macrophages. Lipids 29:651-655, 1994. PMID: 7815900

42. H.M. Aukema, L.A. Davidson, J.R. Lupton and R.S. Chapkin. Diet modulation of rat colonic cAMP-dependent protein kinase activity. Biochemica et Biophysica Acta 1224:51-60, 1994. PMID: 7948042

43. L.A. Davidson, J.R. Lupton, J.H. Jiang, W.C. Chang, H.M. Aukema and R.S. Chapkin. Dietary fat and fiber alter rat colon protein kinase C isozyme expression. Journal of Nutrition 125:49-56, 1995. PMID: 7815176

44. H.M. Aukema, T. Yamaguichi, K. Tomobe, D.J. Philbrick, R.S. Chapkin, H. Takahashi and B.J. Holub. Diet and disease alter phosphoinositide composition and metabolism in murine polycystic kidneys. Journal of Nutrition 125:1183-1191, 1995. PMID: 7738678

45. X. Ou, R.S. Chapkin and K.S. Ramos. Interference with PKC-related mitogenic signal transduction by benzo (a) pyrene is associated with inhibition of quail aortic smooth muscle cell proliferation. Archives of Biochemistry and Biophysics 318:122-130, 1995. PMID: 7726552

46. J.S. Pickering, J.R. Lupton and R.S. Chapkin. Dietary fat, fiber and carcinogen alter fecal diacylglycerol composition and mass. Cancer Research 55:2293-2298, 1995. PMID: 7757978

47. J.B. Carrick, J.N. Moore, R.S. Chapkin and R.G. Schnellmann. Thioglycollate elicitation increases phospholipid arachidonic acid content, decreases eicosanoid synthesis and increases TNF synthesis by rat peritoneal macrophages. Shock 3:284-291, 1995. PMID: 7600195

48. Y.Y. Fan, R.S. Chapkin and K.S. Ramos. A macrophage-smooth muscle cell co-culture model: Applications in the study of atherogenesis. In Vitro Cellular and Developmental Biology 31:492-493, 1995. PMID: 8528495

49. Y.Y. Fan, K.S. Ramos and R.S. Chapkin. Dietary gammalinolenic acid modulates macrophage-vascular smooth muscle cell interactions: Evidence for a macrophage-derived soluble factor which downregulates DNA synthesis in smooth muscle cells. Arteriosclerosis, Thrombosis and Vascular Biology 15:1397-1403, 1995. PMID: 7670954

50. Y.H. Jiang, L.A. Davidson, J.R. Lupton and R.S. Chapkin. A rapid RT-PCR method for detection of intact RNA in formalin-fixed paraffin-embedded tissues. Nucleic Acids Research 23:3071-3072, 1995. PMID: 7544892 PMCID: PMC307153

51. L.A. Davidson, Y.-H. Jiang, J.R. Lupton and R.S. Chapkin. Non-invasive detection of putative biomarkers for colon cancer using fecal mRNA. Cancer Epidemiology, Biomarkers and Prevention 4:643-647, 1995.

52. Y.H. Jiang, H.M. Aukema, L.A. Davidson, J.R. Lupton and R.S. Chapkin. Localization of protein kinase C isozymes in rat colon. Cell Growth & Differentiation 6:1381-1386, 1995. PMID: 8562476

53. J.C. Laurenz, J.M. Gunn, C.A. Jolly and R.S. Chapkin. Alteration of glycerolipid and sphingolipid-derived second messenger kinetics in ras transformed 3T3 cells. Biochimica et Biophysica Acta 1299:146-154, 1996. PMID: 8555247

54. Y.H. Jiang, L.A. Davidson, J.R. Lupton and R.S. Chapkin. Rapid competitive PCR determination of relative gene expression in limiting tissue samples. Clinical Chemistry 42:227-231, 1996. PMID: 8595715

55. C.A. Jolly, J.C. Laurenz, D.N. McMurray and R.S. Chapkin. Diacylglycerol and ceramide kinetics in primary cultures of activated T-lymphocytes. Immunology Letters 49:43-48, 1996. PMID: 8964608

56. Y.Y. Fan, K.S. Ramos and R.S. Chapkin. Cell cycle-dependent inhibition of DNA synthesis in vascular smooth muscle cells by prostaglandin E_1: Relationship to intracellular cAMP levels. Prostaglandins, Leukotrienes and Essential Fatty Acids. 54:101-107, 1996. PMID: 8848428

57. T.J. Weber, R.S. Chapkin, L.A. Davidson and K.S. Ramos. Modulation of protein kinase C (PKC)-related signal transduction by 2,3,7,8-tetrachlorodibenzo-*p*-dioxin exhibits cell cycle-dependence. Archives of Biochemistry and Biophysics 328:227-232, 1996. PMID: 8644998

58. Y.H. Jiang, J.R. Lupton, C.A. Jolly, L.A. Davidson, H.M. Aukema and R.S. Chapkin. Dietary fat and fiber differentially regulate intracellular second messengers during tumor development in rat colon. Carcinogenesis 17:1227-1233, 1996. PMID: 8681436

59. K.S. Ramos, Y. Zhang, D.N. Sadhu and R.S. Chapkin. The induction of proliferative vascular smooth muscle cell phenotypes by benzo (a) pyrene is characterized by up-regulation of inositol phospholipid metabolism and c-Ha-ras gene expression. Archives of Biochemistry and Biophysics 332:213-222, 1996. PMID: 8806728

60. Y.Y. Fan, R.S. Chapkin and K.S. Ramos. Dietary lipid source alters macrophage/vascular smooth muscle cell interactions *in vitro*. Journal of Nutrition 126:2083-2088, 1996. PMID: 8814195

61. H.M. Aukema, L.A. Davidson, B.C. Pence, Y.H. Jiang, J.R. Lupton and R.S. Chapkin. Butyrate alters activity of specific cAMP-receptor proteins in a transgenic mouse colonic cell line. Journal of Nutrition 127:18-24, 1997. PMID: 9040538

62. C.A. Jolly, Y.H. Jiang, R.S. Chapkin and D.N. McMurray. Dietary n-3 polyunsaturated fatty acid modulation of murine lymphoproliferation and interleukin-2 secretion: Correlation with alterations in diacylglycerol and ceramide mass. Journal of Nutrition 127:37-43, 1997. PMID: 9040541

63. D.L. Zoran, R. Barhoumi, R.C. Burghardt, R.S. Chapkin and J.R. Lupton. Diet and carcinogen alter luminal butyrate concentration and intracellular pH in isolated rat colonocytes. Nutrition and Cancer 27:222-230, 1997. PMID: 9919620

64. Y.H. Jiang, J.R. Lupton and R.S. Chapkin. Dietary fish oil blocks carcinogen-induced down-regulation of colonic protein kinase C isozymes. Carcinogenesis 18:351-357, 1997. PMID: 9054628

65. K.G. Maciorowski, J.R. Lupton, R.S. Chapkin, C.L. Shermer, S.D. Ha and S.C. Ricke. The effect of diet and carcinogen on colonic microbial populations in rats. Journal of Nutrition 127:449-457, 1997. PMID: 9082029

66. M.W. Hong, W.-C.L. Chang, R.S. Chapkin and J.R. Lupton. Relationship between colonocyte proliferation, differentiation and apoptosis as a function of diet and carcinogen. Nutrition and Cancer 28:20-29, 1997. PMID: 9200146

67. W.-C.L. Chang, R.S. Chapkin and J.R. Lupton. Predictive value of proliferation, differentiation and apoptosis as intermediate markers for colon tumorigenesis. Carcinogenesis 18:721-730, 1997. PMID: 9111206

68. Y.Y. Fan, K.S. Ramos and R.S. Chapkin. Dietary gamma-linolenic acid enhances release of macrophage-derived prostaglandin E_1 leading to inhibition of mouse vascular smooth muscle cell proliferation. Journal of Nutrition 127:1765-1771, 1997. PMID: 9278557

69. T.J. Weber, Y.Y. Fan, R.S. Chapkin and K.S. Ramos. Growth-related signaling in vascular smooth muscle cells is deregulated by TCDD during G_0/G_1 transition. Journal of Toxicology and Environmental Health 51:369-386, 1997. PMID: 9202717

70. Y.H. Jiang, J.R. Lupton and R.S. Chapkin. Chemopreventive effects of dietary fat and fiber on azoxymethane-induced alterations in colonic PKC lambda expression. Journal of Nutrition 127:1938-1943, 1997. PMID: 9311948

71. D.L. Zoran, N.D. Turner, S.S. Taddeo, R.S. Chapkin and J.R. Lupton. Wheat bran reduces tumor incidence in a rodent model of colon cancer independent of effects on distal luminal butyrate concentrations. Journal of Nutrition 127:2217-2225, 1997. PMID: 9349850

72. W.C.L. Chang, R.S. Chapkin and J.R. Lupton. Fish oil blocks azoxymethane-induced tumorigenesis by increased cell differentiation and apoptosis rather than decreased cell proliferation. Journal of Nutrition 128:491-497, 1998. PMID: 9482754

73. L.A. Davidson, C.M. Aymond, Y.H. Jiang, N.D. Turner, J.R. Lupton and R.S. Chapkin. Noninvasive detection of fecal protein kinase $C\beta_{II}$ and zeta messenger RNA: Putative biomarkers for colon cancer. Carcinogenesis 19:253-257, 1998. PMID: 21508209 PMCID: PMC3095137

74. C.A. Jolly, D.N. McMurray and R.S. Chapkin. Effect of dietary n-3 fatty acids on interleukin-2, interleukin-2 receptor α expression in activated murine lymphocytes. Prostaglandins, Leukotrienes and Essential Fatty Acids 58:289-293, 1998. PMID: 9654402

75. J. Zhang, G. Wu, R.S. Chapkin and J.R. Lupton. Energy metabolism of colonocytes changes during the tumorigenesis process and is dependent on diet and carcinogen. Journal of Nutrition 128:1262-1269, 1998. PMID: 9687542

76. R.S. Chapkin, A.E. Clark, L.A. Davidson, F. Schroeder and J.R. Lupton. Dietary fiber differentially alters cellular fatty acid binding protein expression in exfoliated colonocytes during tumor development. Nutrition and Cancer 32:107-112, 1998. PMID: 9919620

77. L.A. Davidson, J.R. Lupton, Y.H. Jiang and R.S. Chapkin. Carcinogen and dietary lipid regulate ras expression and localization in rat colon without affecting farnesylation kinetics. Carcinogenesis 20:785-791, 1999. PMID: 10334194

78. N.R. Murray, L.A. Davidson, R.S. Chapkin, W.C. Gustafson, D.G. Schattenberg and A.P. Fields. Overexpression of protein kinase C beta II in the colonic epithelium causes hyperproliferation and increased sensitivity to colon carcinogenesis. Journal of Cell Biology. 145:699-711, 1999. PMID: 1033040 PMCID: PMC2133187

79. Y.Y. Fan, N. Turner, J. Zhang, R. Barhoumi, R.C. Burghardt, J.R. Lupton and R.S. Chapkin. Antagonism of CD95 (APO-1/Fas) signaling blocks butyrate induction of apoptosis in young adult mouse colonic (YAMC) cells. American Journal of Physiology: 277 (Cell Physiology 46): C310-C319, 1999. PMID: 10444408

80. A.P. Fields and R.S. Chapkin. Signaling to colon cancer. Gastroenterology 7:1499-1500, 1999.

82. M.Y. Hong, R.S. Chapkin, J.S. Morris, N. Wang, R.J. Carroll, N.D. Turner and J.R. Lupton. Relationship between DNA adduct levels, repair enzyme and apoptosis as a function of DNA alkylation by azoxymethane. Cell Growth & Differentiation 10:749-758, 1999. PMID: 10593651

83. R.S. Chapkin,Y.Y. Fan and J.R. Lupton. Effect of diet on colonic programmed cell death: molecular mechanism of action. Toxicology Letters 112-113, 411-414, 2000. PMID: 10720760

84. L.A. Davidson, R.E. Brown, W.C. Chang, J.R. Lupton, J.S. Morris, N. Wang, R.J. Carroll, N.D. Turner and R.S. Chapkin. Morphodensitometric analysis of protein kinase CβII expression in rat colon: modulation by diet and relation to in situ cell proliferation and apoptosis. Carcinogenesis 21:1513-1519, 2000. PMID: 10910952

85. D.N. McMurray, C.A. Jolly and R.S. Chapkin. Effect of dietary n-3 fatty acids on T cell activation and T cell receptor mediated signalling in a murine model. Journal of Infectious Disease 182(Suppl 1):S103-S107, 2000. PMID: 10944491

86. M.Y. Hong, J.R. Lupton, J.S. Morris, N. Wang, R.J. Carroll, L.A. Davidson, R.H. Elder and R.S. Chapkin. Dietary fish oil reduces DNA adduct levels in rat colon in part by increasing apoptosis during tumor initiation. Cancer Epidemiology Biomarkers and Prevention 9:819-826, 2000. PMID: 10952099

87. E.D. Collett, L.A. Davidson, J.R. Lupton and R.S. Chapkin. n-6 and n-3 polyunsaturated fatty acids differentially modulate oncogenic ras activation in colonocytes. American Journal of Physiology: Cell Physiology 280:C1066-C1075, 2001. PMID: 11287318

88. J.L. Arrington, K.C. Switzer, Y.Y. Fan, D.N. McMurray and R.S. Chapkin. Docosahexaenoic acid suppresses function of the CD28 costimulatory membrane receptor function in primary murine and Jurkat T cells. Journal of Nutrition 131:1147-1153, 2001. PMID: 11285317

89. D.Y. Fan, K.S. Ramos and R.S. Chapkin. Dietary primrose oil containing gammalinolenic acid suppresses smooth muscle proliferation and reduces atherosclerosis in Apo E knock-out mice. Journal of Nutrition 131:1675-1681, 2001. PMID: 11385052

90. J.L. Arrington, R.S. Chapkin, K.C. Switzer, J.S. Morris and D.N. McMurray. Dietary n-3 polyunsaturated fatty acids modulate purified murine T-cell subset activation. Clinical and Experimental Immunology 125:499-507, 2001. PMID: 11531960 PMCID: PMC1906146

91. J.S. Morris, N. Wang, J.R. Lupton, R.S. Chapkin, N.D. Turner, M.Y. Hong and R.J. Carroll. Parametric and non parametric methods for understanding the relationship between carcinogen-induced DNA adduct levels in distal and proximal regions of the colon. Journal of the American Statistical Association 96:816-826, 2001.

92. M.Y. Hong, R.S. Chapkin, J.S. Morris, N. Wang, R.J. Carroll, N.D. Turner, W.C. Chang, L.A. Davidson and J.R. Lupton. Anatomical site-specific response to DNA damage is related to later tumor development in the rat AOM colon carcinogenesis model. Carcinogenesis 22:1831-1835, 2001. PMID: 11698346

93. R.S. Chapkin, M.Y. Hong, Y.Y. Fan, L.A. Davidson, L.M. Sanders, C.E. Henderson, N.D. Turner, R. Barhoumi, R.C. Burghardt and J.R. Lupton. Dietary n-3 fatty acids alter colonocyte mitochondrial membrane composition and function. Lipids 37:193-199, 2002. PMID: 11908911

94. N.R. Murray, C. Weems, L. Chen, J. Leon, W. Yu, L.A. Davidson, L. Jamieson, R.S. Chapkin, A. Thompson, and A.P. Fields. Protein kinase CβII and TGFβRII in W-3 fatty acid-mediated inhibition of colon carcinogenesis. Journal of Cell Biology 157:915-920, 2002. PMID: 12058013 PMCID: PMC2174056

95. N.D. Turner, J. Zhang, L.A. Davidson, J.R. Lupton and R.S. Chapkin. Oncogenic ras alters sensitivity of mouse colonocytes to butyrate and fatty acid mediated growth arrest and apoptosis. Cancer Letters 186:29-35, 2002. PMID: 12183072

96. R.S. Chapkin, J.L. Arrington, T.V. Apanasovich, R.J. Carroll and D.N. McMurray. Dietary n-3 PUFA affect TcR-mediated activation of purified murine T cells and accessory cell function in co-cultures. Clinical and Experimental Immunology 130:12-18, 2002. PMID: 12296847 PMCID: PMC1906501

97. M.Y. Hong, R.S. Chapkin, R. Barhoumi, R.C. Burghardt, N.D. Turner, C.E. Henderson, L.M. Sanders, Y.Y. Fan, L.A. Davidson, M. Murphy, R.J. Carroll and J.R. Lupton. Fish oil feeding increases the unsaturation index in mitochondrial phospholipids, enhancing reactive oxygen species generation and initiating apoptosis in rat colonocytes. Carcinogenesis 23:1919-1925, 2002. PMID: 12419841

98. J.S. Morris, N. Wang, J.R. Lupton, R.S. Chapkin, N.D. Turner, M.Y. Hong and R.J. Carroll. A Bayesian analysis of colonic crypt structure and signaling incorporating missing crypts. Biostatistics 3:529-546, 2002. PMID: 12933596

99. L.A. Davidson, J.R. Lupton, E. Miskovsky, A.P. Fields and R.S. Chapkin. Quantification of human intestinal gene expression profiles using exfoliated colonocytes: A pilot study. Biomarkers 8(1):51-61, 2003. PMID: 12519636

100. K.C. Switzer, D.N. McMurray, J.S. Morris and R.S. Chapkin. Dietary n-3 polyunsaturated fatty acids selectively promote activation-induced cell death in T-lymphocytes. Journal of Nutrition 133:496-503, 2003. PMID: 12566490

101. Y.Y. Fan, D.N. McMurray, L.H. Ly and R.S. Chapkin. Dietary n-3 polyunsaturated fatty acids remodel mouse T cell lipid rafts. Journal of Nutrition 133: 1913-1920, 2003. PMID: 12771339

102. L.K. Bancroft, J.R. Lupton, L.A. Davidson, S.S. Taddeo, M.E. Murphy, R.J. Carroll and R.S. Chapkin. Dietary fish oil reduces oxidative DNA damage in rat colonocytes. Free Radical Biology & Medicine 35:149-159, 2003. PMID: 12853071

103. Y.Y. Fan, T.E. Spencer, N. Wang, M.P. Moyer and R.S. Chapkin. Chemopreventive n-3 fatty acids activate RXRα in colonocytes. Carcinogenesis 24:1-8, 2003. PMID:12844485

104. M.H. Hong, R.S. Chapkin, L.A. Davidson, N.D. Turner, J.S. Morris, R.J. Carroll and J.R. Lupton. Fish oil enhances targeted apoptosis during colon tumor initiation in part by down regulating BCL-2. Nutrition & Cancer 46:44-51, 2003. PMID: 12925303

105. T.V. Apanasovich, S. Sheather, J.R. Lupton, N. Popovic, N.D. Turner, R.S. Chapkin, L.A. Brady and R.J. Carroll. Testing for spatial correlation in non-stationary binary data, with application to aberrant crypt foci in colon carcinogenesis. Biometrics 59:752-761, 2003. PMID: 14969452

106. D.W.L. Ma, J. Seo, L.A. Davidson, E.S. Callaway, Y.Y. Fan, J.R. Lupton and R.S. Chapkin. n-3 PUFA alter caveolae lipid composition and resident protein localization in mouse colon. Faseb Journal, April 15, 2004. 10.1096/fj.o3-0604fje, 18:1040-1042, 2004. PMID: 15084525

107. L.M. Sanders, C.E. Henderson, M.Y. Hong, R. Barhoumi, R.C. Burghardt, R.J. Carroll, N.D. Turner, R.S. Chapkin and J.R. Lupton. Pro-oxidant environment of the colon compared to the small intestine may contribute to greater cancer susceptibility. Cancer Letters 208:155-161, 2004. PMID: 15142673

108. K.C. Switzer, Y-Y. Fan, N. Wang, D.M. McMurray and R.S. Chapkin. Dietary n-3 polyunsaturated fatty acids promote activation-induced cell death in the Th1-polarized murine $CD4^+$ T-cells. Journal of Lipid Research, 45:1482-1492, 2004. PMID: 15145980

109. R.C. Zangar, Y.Y. Fan and R.S. Chapkin. Interactions of phospholipase D and cytochrome P450 protein stability. Biochemical Pharmacology 68: 503-512, 2004. PMID:15242816

110. L.A. Davidson, D.V. Nguyen, R.M. Hokanson, E.S. Callaway, R.B. Isett, N.D. Turner, E.R. Dougherty, N. Wang, J.R. Lupton, R.J. Carroll and R.S. Chapkin. Chemopreventive n-3 polyunsaturated fatty acids reprogram genetic signatures during colon cancer initiation and progression in the rat. Cancer Research 64:6797-6804, 2004. PMID:15374999

111. Y.Y. Fan, L.H. Ly, R. Barhoumi, D.N. McMurray and R.S. Chapkin. Dietary docosahexaenoic acid suppresses T-cell protein kinase C-theta lipid raft recruitment and interleukin-2 production. Journal of Immunology 173:6151-6160, 2004. PMID: 15528352

112. L.M. Sanders, C.E. Henderson, M.Y. Hong, R. Barhoumi, R.C. Burghardt, N. Wang, C.M. Spinka, R.J. Carroll, N.D. Turner, R.S. Chapkin and J.R. Lupton. Enhancement of reactive oxygen species by dietary fish oil and attenuation of antioxidant defenses by dietary pectin coordinately heightens apoptosis in rat. Journal of Nutrition 134:3233-3238, 2004. PMID: 15570018

113. L.H. Ly, R. Smith, R.S. Chapkin and D.N. McMurray. Dietary n-3 polyunsaturated fatty acids suppress splenic $CD4^+$ T-cell function in IL-$10^{(-/-)}$ mice. Clinical & Experimental Immunology 139: 202-209, 2005. PMID: 15654818 PMCID: PMC1809295

114. D.W.L. Ma, R.H. Finnell, L.A. Davidson, E.S. Callaway, O. Spiegelstein, J.A. Piedrahita, J.M. Salbaum, C. Kappen, B. Weeks, J. James, D. Bozinov, J.R. Lupton and R.S. Chapkin. Folate transport gene inactivation in mice increases sensitivity to colon carcinogenesis. Cancer Research 65:887-897, 2005. PMID:15705887 PMCID:PMC3938162

115. M. Leyk, D.V. Nguyen, S.N. Atoor, E.R. Dougherty, N.D. Turner, L.K. Bancroft, R.S. Chapkin, J.R. Lupton and R.J. Carroll. Comparing automatic and manual image processing in FLARE assay analysis for colon carcinogenesis. Statistical Applications in Genetics and Molecular Biology 4:1-18, Article 5, 2005 http://www.bepress.com/sagmb/vol4/iss1/art5 PMID: 16646858

116. G.D. Zhou, N. Popovic, J.R. Lupton, N.D. Turner, R.S. Chapkin and K.C. Donnelly. Tissue-specific attenuation of endogenous DNA I-compounds in rats by carcinogen azoxynethane: possible role of fish oil in colon cancer prevention. Cancer Epidemiology Biomarkers & Prevention 14:1230-1235, 2005. PMID: 15894677

117. P. Zhang, R. Smith, R.S. Chapkin and D.N. McMurray. Dietary n-3 Polyunsaturated fatty acids modulate the Th1/Th2 balance towards the Th2 pole by suppression of Th1 development. Journal of Nutrition 135:1745-1751, 2005. PMID: 15987859

118. M.Y. Hong, N.D. Turner, R.J. Carroll, R.S. Chapkin and J.R. Lupton. Differential response to oxidative DNA damage may explain aspects of the cancer susceptibility between small and large intestine. Experimental Biology and Medicine 230:464-471, 2005. PMID: 15985621

119. M.Y. Hong, L.K. Bancroft, N.D. Turner, L.A. Davidson, M.E. Murphy, R.J. Carroll, R.S. Chapkin and J.R. Lupton. Fish oil decreases oxidative DNA damage by enhancing apoptosis in rat colon. Nutrition & Cancer 52:166-175, 2005. PMID: 16201848

120. L.D. Liu, N. Wang, J.R. Lupton, N.D. Turner, R.S. Chapkin and L.A. Davidson. A two-stage normalization method for partially degraded mRNA microarray data. Bioinformatics 21:4000-4006, 2005. PMID: 16150808

121. Y. Ng, R. Barhoumi, R.B. Tjalkens, Y.Y. Fan, S. Kolar, N. Wang, J.R. Lupton and R.S. Chapkin. The role of docosahexaenoic acid mediating mitochondrial membrane lipid oxidation and apoptosis in colonocytes. Carcinogenesis 26:1914-1921, 2005. PMID: 15975958

122. L.H. Ly, R. Smith, K.C. Switzer, R.S. Chapkin and D.N. McMurray. Dietary eicosapentaenoic acid modulates CTLA-4 expression in murine $CD4^+$ T-cells. Prostaglandins, Leukotrienes and Essential Fatty Acids 74:29-37, 2006. PMID: 16221546

123. J. Vanamala, T. Leonardi, B.S. Patil, S.S. Taddeo, M.E. Murphy, L.M. Pike, R.S. Chapkin, J.R. Lupton and N.D. Turner. Suppression of colon carcinogenesis by bioactive compounds in grapefruit. Carcinogenesis 27:1257-1265, 2006. PMID: 16387741

124. J. Seo, R. Barhoumi, A.E. Johnson, J.R. Lupton and R.S. Chapkin. Docosahexaenoic acid selectively inhibits plasma membrane targeting of lipidated proteins. FASEB Journal 20:770-772, 2006. PMID: 16469846

125. P. Zhang, W. Kim, R., L. Zhou, N. Wang, L.H. Ly, D.N. McMurray and R.S. Chapkin. Dietary fish oil inhibits antigen-specific Th1 cell development by suppression of clonal expansion. Journal of Nutrition 136:2391-2398, 2006. PMID: 16920860

126. R.S. Chapkin, L.A. Davidson, L. Ly, B.R. Weeks, J.R. Lupton, and D.N. McMurray. Immunomodulatory effects of omega-3 fatty acids: Putative link to inflammation and colon cancer. Journal of Nutrition 137:200S-204S, 2007. PMID: 17182826

127. S.S. Kolar, R. Barhoumi, J.R. Lupton and R.S. Chapkin. Docosahexaenoic acid and butyrate synergistically induce colonocyte apoptosis by enhancing mitochondrial Ca^{2+} accumulation. Cancer Research 67:5561-5568, 2007. PMID: 17545640

128. S.S. Kolar, R. Barhoumi, E.S. Callaway, Y.Y. Fan, N. Wang, J.R. Lupton and R.S. Chapkin. Synergy between docosahexaenoic acid and butyrate elicits p53-independent apoptosis via mitochondrial Ca^{2+} accumulation in human colon cancer cells and primary cultures of rat colonic crypts. American Journal of Physiology: GI and Liver Physiology 293:G935-G943, 2007. PMID: 17717041

129. T.V. Apanasovich, D. Ruppert, J.R. Lupton, N. Popovic, N.D. Turner, R.S. Chapkin and R.J. Carroll. Aberrant crypt foci and semiparametric modeling of correlated binary data. Biometrics 64:490-500, 2008. PMID: 17725810 PMCID: PMC2659549

130. R.S. Chapkin, N. Wang, Y.Y. Fan, J.R. Lupton and I.A. Prior. Docosahexaenoic acid alters the size and distribution of cell surface microdomains. Biochimica et Biophysica Acta – Biomembranes 1778:466-471, 2008. PMID: 18068112 PMCID: PMC2244794

131. J. Vanamala, A. Glagolenko, P. Yang, R.J. Carroll, M.E. Murphy, R.A. Newman, R.S. Chapkin and J.R. Lupton. Dietary fish oil and pectin enhance colonocyte apoptosis in part through suppression of PPARdelta/PGE2 and elevation of PGE3. Carcinogenesis 29:790-796, 2008. PMID: 18022478 PMCID: PMC2659531

132. Q. Jia, J.R. Lupton, R. Smith, B. Weeks, E. Callaway, L.A. Davidson, W. Kim, Y.Y. Fan, P. Yang, R. Newman, J. Kang, D.N. McMurray and R.S. Chapkin. Reduced colitis-associated colon cancer in Fat-1 (n-3 fatty acid desaturase) transgenic mice. Cancer Research 68:3985-3991, 2008. PMID: 18483285 PMCID: PMC2648804

133. R.S. Chapkin, D.N. McMurray, L.A. Davidson, B.S. Patil, Y.Y. Fan and J.R. Lupton. Bioactive dietary long chain fatty acids: Emerging mechanisms of action. British Journal of Nutrition 100:1152-1157, 2008. PMID: 18492298 PMCID: PMC2648819

134. K.C. Crim, L. Sanders, M.Y. Hong, S. Taddeo, N.D. Turner, R.S. Chapkin and J.R. Lupton. Upregulation of p21waf1/cip1 expression in vivo by butyrate administration can be chemoprotective or chemopromotive depending on the lipid component of the diet. Carcinogenesis 29:1415-1420, 2008. PMID: 18567619 PMCID: PMC2659529

135. W. Kim, Y.Y. Fan, R. Barhoumi, R. Smith, D.N. McMurray and R.S. Chapkin. n-3 polyunsaturated fatty acids suppress the localization and activation of signaling proteins at the immunological synapse in murine $CD4^+$ cells by affecting membrane raft formation. Journal of Immunology 181:6236-6243, 2008. PMID: 18941214 PMCID: PMC2597670

136. C. McFarland, Y.Y. Fan, R.S. Chapkin, B. Weeks and D.N. McMurray. Dietary polyunsaturated fatty acids modulate resistance to *M. tuberculosis* in guinea pigs. Journal of Nutrition 138:2123-2128, 2008. PMID: 18936208 PMCID: PMC2635522

137. Y.Y. Fan, W. Kim, E. Callaway, R. Smith, Q. Jia, L. Zhou, D.N. McMurray and R.S. Chapkin. *fat-1* transgene expression prevents cell culture-induced loss of membrane n-3 fatty acids in activated $CD4^+$ T-cells. Prostaglandins Leukotrienes & Essential Fatty Acids 79:209-214, 2008. PMID: 18977126 PMCID: PMC2718534

138. C.A. Warren, K.J. Paulhill, L.A. Davidson, J.R. Lupton, S.S. Taddeo, M.Y. Hong, R.J. Carroll, R.S. Chapkin and N.D. Turner. Quercetin may suppress rat aberrant crypt foci by suppressing inflammatory mediators that influence proliferation and apoptosis. Journal of Nutrition 139:101-105, 2009. PMID: 19056647 PMCID: PMC2714375

139. R.S. Chapkin, B.A. Kamen, E.S. Callaway, L.A. Davidson, N.I. George, N. Wang, J.R. Lupton and R.H. Finnell. Use of a novel genetic mouse model to investigate the role of folate in colitis-associated colon cancer. Journal of Nutritional Biochemistry 79:649-655, 2009. PMID: 18926688 PMCID: PMC2710403

140. W. Kim, Y.Y. Fan, R. Smith, B. Patil, G.K. Jayaprahasha, D.N. McMurray and R.S. Chapkin. Dietary curcumin and limonin suppress $CD4^+$ T-cell proliferation and interleukin-2 production. Journal of Nutrition 139:1042-1048, 2009. PMID: 19321585 PMCID: PMC2714386

141. C. Zhao, I. Ivanov, E.R. Dougherty, T.J. Hartman, E. Lanza, N.H. Colburn, J.R. Lupton, L.A. Davidson and R.S. Chapkin. Non-invasive detection of candidate molecular biomarkers in subjects with a history of insulin resistance and colorectal adenomas. Cancer Prevention Research 2:590-597, 2009. PMID: 19470793 PMCID: PMC2745241

142. Y.Y. Fan, Y. Tian, L.A. Davidson, L. Zhou, E. Callaway, B.R. Weeks, S. Toyokuni, J.R. Lupton, and R.S. Chapkin. Proapoptotic effects of n-3 fatty acids are enhanced in SOD2 knockout mouse colon. Journal of Nutrition 139:1328-1332, 2009. PMID: 19458032 PMCID: PMC2696987

143. N.D. Turner, Paulhill, K.J., Warren, C.A., Carroll, R.J., Wang, N., Davidson, L.A., Chapkin, R.S. and Lupton, J.R. Quercetin suppresses early colon carcinogenesis partly through inhibition of inflammatory mediators. Acta Horticulturae 841:237-241, 2009. PMID: 20396589 PMCID: PMC2854410

144. L.A. Davidson, N. Wang, I. Ivanov, J. Goldsby, J.R. Lupton and R.S. Chapkin. Identification of actively translated mRNA transcripts in a rat model of early stage colon carcinogenesis. Cancer Prevention Research 2:984-994, 2009. PMID: 19843688 PMCID: PMC2783859

145. L.A. Davidson, N. Wang, M.S. Shah, I. Ivanov, J.R. Lupton and R.S. Chapkin. n-3 polyunsaturated fatty acids modulate carcinogen-directed non-coding microRNA signatures in rat colon. Carcinogenesis 30:2077-2084, 2009. PMID: 19825969 PMCID: PMC2792315

146. D.L. Bonilla, Y.Y. Fan, R.S. Chapkin and D.N. McMurray. Transgenic mice enriched in omega-3 fatty acids are more susceptible to *Mycobacterium tuberculosis* infection. Journal of Infectious Disease 201:399-408, 2010. PMID: 20053136 PMCID: PMC4421876

147. Y. Huo, X. Guo, H. Li, H. Wang, W. Zhang, Y. Wang, H. Zhou, Z. Gao, S. Telang, J. Chesney, Y.E. Chen, J. Ye, R.S. Chapkin, and C.D. Wu. Disruption of inducible 6-phosphofructo-2-kinase ameliorates diet-induced adiposity but exacerbates adipose tissue inflammatory response and systemic insulin resistance. Journal of Biological Chemistry 285:3713-3721, 2010. PMID: 19948719 PMCID: PMC2823512

148. R.S. Chapkin, C. Zhao, I. Ivanov, L.A. Davidson, J.S. Goldsby, J.R. Lupton, R.A. Mathai, M. Siegel, D. Rai, M. Russell, S.M. Donovan and E.R. Dougherty. Non-invasive stool-based detection of infant gastrointestinal development using gene expression profiles from exfoliated epithelial cells. American Journal of Physiology 298:G582-G589, 2010. PMID: 20203060 PMCID: PMC2867429

149. R. Yog, R. Barhoumi, D.N. McMurray and R.S. Chapkin. n-3 polyunsaturated fatty acids suppress mitochondrial translocation to the immunological synapse and modulate calcium signaling in T cells. Journal of Immunology 184:5864-5873, 2010. PMID 20393134 PMCID: PMC4422833

150. C. Zhao, M.L. Bittner, R.S. Chapkin and E.R. Dougherty. Characterization of the effectiveness of reporting lists of small feature sets relative to the accuracy of the prior biological knowledge. Cancer Informatics 9:4960, 2010. PMID:20458361 PMCID: PMC2865771

151. T. Leonardi, J. Vanamala, S.S. Taddeo, L.A. Davidson, M.E. Murphy, B.S. Patil, N. Wang, R.J. Carroll, R.S. Chapkin, J.R. Lupton, N.D. Turner. Apigenin and naringenin suppress colon carcinogenesis through the aberrant crypt stage in azoxymethane-treated rats. Experimental Biology and Medicine 235:710-717, 2010. PMID:20511675 PMCID: PMC2885760

152. D.L. Bonilla, L.H. Ly, Y.Y. Fan, R.S. Chapkin and D.N. McMurray. Incorporation of omega-3 fatty acids impairs macrophage responses to Mycobacterium tuberculosis. PLoS ONE 5, Issue 5, e10878, 2010. PMID: 20526363 PMCID:PMC2878322

153. Zhang, Z., Lanza, E., Kris-Etherton, P.M., Colburn, N.H., Bagshaw, D., Rovine, M.J., Ulbrecht, J.S., Bobe, G., Chapkin, R.S. and Hartman, T.J. A high legume low glycemic index diet improves serum lipid profiles in men. Lipids 45:765-775, 2010. PMID: 20734238 PMCID: PMC3461593

154. N.I. George, J.R. Lupton, N.D. Turner, R.S. Chapkin, L.A. Davidson, and N. Wang. Evaluation of fecal mRNA reproducibility via a marginal transformed Mixture modeling approach. BMC Bioinformatics 11:13, 2010. PMID: 20055994 PMCID: PMC2827371

155. H.F. Turk, S.S. Kolar, Y.Y. Fan, C.A. Cozby, J.R. Lupton and R.S. Chapkin. Linoleic acid and butyrate synergize to increase bcl-2 in colonocytes. International Journal of Cancer 128:63-71, 2011. PMID: 20232381 PMCID: PMC2962699

156. Q. Jia, I. Ivanov, Z.Z. Zlatev, R.C. Alaniz, B.R. Weeks, E. Callaway, J.S. Goldsby, L.A. Davidson, Y.Y. Fan, L. Zhou, J.R. Lupton, D. N. McMurray and R.S. Chapkin. Fish oil and curcumin combination modulate colonic cytokinetics and gene expression in DSS-treated mice. British Journal of Nutrition 106:519-529, 2011. PMID:21401974 PMCID: PMC4422836

157. P. Kachroo, I. Ivanov, L.A. Davidson, B.P. Chowdhary, J.R. Lupton and R.S. Chapkin. Classification of diet-modulated gene signatures at the colon cancer initiation and progression stages. Digestive Diseases and Sciences. 56:2595-2604, 2011. PMID: 21409376 PMCID: PMC3139012

158. Y.Y. Fan, Q. Ran, S. Toyokuni, Y. Okazaki, E.S. Callaway, J.R. Lupton, and R.S. Chapkin. Dietary fish oil promotes colonic apoptosis and mitochondrial proton leak in oxidatively stressed mice. Cancer Prevention Research, 4:1267-1274, 2011. PMID: 21409130 PMCID: PMC3137683

159. S. Kolar, R. Barhoumi, C.K. Jones, J. Wesley, J.R. Lupton, Y.Y. Fan and R.S. Chapkin. Interactive effects of fatty acid and butyrate-induced mitochondrial Ca^{2+} loading and apoptosis in colonocytes. Cancer 117:5294-5303, 2011. PMID: 21563175 PMCID: PMC3156959

160. M. Shah, S.L. Schwartz, C. Zhao, L.A. Davidson, B. Zhou, J.R. Lupton, I. Ivanov and R.S. Chapkin. Integrated microRNA and mRNA expression profiling in a rat colon carcinogenesis model: Effect of a chemoprotective diet. Physiological Genomics 43:640-653, 2011. PMID: PMCID: 21406606 PMC3110886

161. Y. Cho, H. Kim, N.D. Turner, J.C. Mann, J. Wei, S.S. Taddeo, L.A. Davidson, N. Wang, M. Vannucci, R.J. Carroll, R.S. Chapkin and J.R. Lupton. A chemoprotective fish oil/pectin-containing diet temporally alters gene expression profiles in exfoliated rat colonocytes throughout oncogenesis. Journal of Nutrition 141:1029-1035, 2011. PMID: 21508209 PMCID: PMC3095137

162. R.S. Chapkin. Letter to the Editor – Response from Chapkin to Letter from Boucher. British Journal of Nutrition 106:1764, 2011.

163. J.M. Monk, W. Kim, E. Callaway, J.E. Foreman, J.M. Peters, W. He, B. Weeks, R.C. Alaniz, D.N. McMurray and R.S. Chapkin. Immunomodulatory action of dietary fish oil and targeted deletion of intestinal epithelial cell PPARδ in inflammation-induced colon carcinogenesis. American Journal of Physiology – GI Physiology 302:G153-G167, 2012. PMID: 21940900 PMCID: PMC3345959

164. J.M. Monk, Q. Jia, E. Callaway, B. Weeks, R.C. Alaniz, D.N. McMurray and R.S. Chapkin. n-3 PUFA decrease Th17 cell accumulation in chronic dextran sodium sulfate (DSS)-induced colitis. Journal of Nutrition 142:117-124, 2012. PMID: 22131549 PMCID: PMC3237233

165. M. Saldua, C. Olsovsky, E.S. Callaway, R.S. Chapkin, K.C. Maitland. Imaging inflammation in mouse colon using a rapid stage scanning confocal fluorescence microscope. Journal of Biomedical Optics, January 17, 016006 (2012), DOI:10.1117/1.JBO.17.1.016006, http://spiedigitallibrary.org/jbo/resource/1/jbopfo/v17/i1/p016006_s1. PMID: 22352656 PMCID: PMC3380810

166. T.Y. Hou, J.M. Monk, Y.Y. Fan, R. Barhoumi, Y. Chen, G.M. Rivera, D.N. McMurray and R.S. Chapkin. n-3 polyunsaturated fatty acids suppress phosphatidylinositol-(4,5)-bisphosphate dependent actin remodeling during $CD4^+$ T cell activation. Biochemical Journal 443:27-37, 2012. PMID:22250985 PMCID: PMC3814172

167. S. Schwartz, I. Friedberg, I.V. Ivanov, L.A. Davidson, J.S. Goldsby, D.B. Dahl, D. Herman, M. Wang, S.M. Donovan and R.S. Chapkin. A Metagenomic study of diet-dependent interaction between gut microflora and host in infants reveals differences in developmental and immune responses. Genome Biology 13:R32 doi:10.1186/gb-2012-13-4-r32. PMID: 22546241 PMCID: PMC3446306

168. Y.Y. Fan, J. Monk, T. Hou, E. Callaway, L. Vincent, B. Weeks, P. Yang and R.S. Chapkin. Characterization of an arachidonic acid-deficient (FADS1 knock-out) mouse model. Journal of Lipid Research 53:1287-1295, 2012. PMID: 22534642 PMCID: PMC3371240

169. Y. Huo, X. Guo, H. Li, W. Zhang, H. Wang, Y.Y. Fan, H. Xu, C. Meng, V. Halim, G. Zhuang, R.L. Walzem, R.S. Chapkin, B. Zhou, D. G. Mashek, H. Dong, F. Lu, L. Wei, H.C.

Towle and C.D. Wu. Targeted overexpression of inducible 6-phosphofructo-2-kinase in adipose tissue increases fat deposition but protects against diet-induced insulin resistance and inflammatory responses. Journal of Biological Chemistry 287:21492-21500, 2012. PMID: 22556414 PMCID: PMC3375570

170. H.F. Turk, R. Barhoumi and R.S. Chapkin. Alteration of EGFR spatiotemporal dynamics suppresses signal transduction. PLoS One 7(6):e39682, June, 2012. PMID: 22761867 PMCID: PMC3384615

171. L.A. Davidson, J.S. Goldsby, E.S. Callaway, M. Shah, N. Barker and R.S. Chapkin. Alteration of colonic stem cell gene signatures during the regenerative response to injury. Biochmicia et Biophysica Acta-Molecular Basis of Disease 1822:1600-1607, 2012. PMID: 22750333 PMCID:PMC3418394

172. Y. Cho, N.D. Turner, L.A. Davidson, R.S. Chapkin, R.J. Carroll, J.R. Lupton. A chemoprotective fish oil/pectin diet enhances apoptosis via Bcl-2 promoter methylation in rat azoxymethane-induced carcinomas. Experimental Biology and Medicine 237:1387-1393, 2012. PMID:23354397 PMCID: PMC3999967

173. J.M. Monk, T.Y. Hou, H.F. Turk, B. Weeks, C. Wu, D.N. McMurray and R.S. Chapkin. Dietary n-3 polyunsaturated fatty acids (PUFA) decrease obesity-associated Th17 cell-mediated inflammation during colitis. PLoS One 7(11)e49739, November, 2012. doi:10.1371/journal.pone.0049739. PMID: 23166761 PMCID:PMC3500317

174. J.E. Ahn, X. Zhou, S.E. Dowd, R.S. Chapkin and K. Zhu-Salzman. Insight into hypoxia tolerance in cowpea bruchids through pyrosequencing: metabolic repression and heat shock protein regulation via hypoxia-inducible factor 1. PLoS One 8(4)e57267, April, 2013. PMID:23593115 PMCID: PMC3625201

175. H.F. Turk, J.M. Monk, Y.Y. Fan, E.S. Callaway, B. Weeks and R.S. Chapkin. Inhibitory effects of omega-3 fatty acids on injury induced epidermal growth factor transactivation contribute to delayed wound healing. American Journal of Physiology 304:C905-C917, 2013. PMID:23426968 PMCID: PMC3651607

176. J.M. Monk, T.Y. Hou, H.F. Turk, D.N. McMurray and R.S. Chapkin. Polarization of Th17 cells is reduced by dietary (n-3) polyunsaturated fatty acids. Journal of Nutrition 143:1501-1508, 2013. PMID:23864512 PMCID: PMC3743278

177. K. Triff, K. Konganti, S. Gaddis, B. Zhou, I. Ivanov and R.S. Chapkin. Genome wide analysis of the rat colon reveals site-specific differences in histone modifications and proto-oncogene expression. Physiological Genomics 45:1229-1243, 2013. PMID: 24151245 PMCID: PMC3882682

178. W. Kim, R. Barhoumi, D.N. McMurray and R.S. Chapkin. Dietary fish oil and docosahexaenoic acid downregulate antigen activated $CD4^+$ T cells while promoting formation of liquid ordered mesodomains. British Journal of Nutrition 111:254-260, 2014. PMID:23962659 PMCID: PMC4327854

179. Y.M. Cho, N.D. Turner, L.A. Davidson, R.S. Chapkin, R.J. Carroll and J.R. Lupton. Colon cancer cell apoptosis is induced by combined exposure to the n-3 fatty acid DHA and

butyrate through promoter methylation. Experimental Biology & Medicine 239:302-310, 2014. PMID:24495951 PMCID: PMC3999970

180. Y.Y. Fan, L.A. Davidson, E.S. Callaway, J.S. Goldsby and R.S. Chapkin. Differential effects of 2 and 3-series prostaglandins on in vitro expansion of $Lgr5^+$ intestinal stem cells. Carcinogenesis 35:606-612, 2014. PMID:24336194 PMCID: PMC3941743

181. R. Bahoumi, Y. Mouneimne, R.S. Chapkin and R.C. Burghardt. Effects of fatty acids on benzo[a]pyrene uptake and metabolism in lung adenocarcinoma A549 cells. PLOS One 2014 Mar 20;9(3):e90908. PMCID:PMC3961214

182. U.H. Jin, S.O. Lee, G. Sridharan, K. Lee, L.A. Davidson, A. Jayaraman, R.S. Chapkin, R. Alaniz and S. Safe. Microbiome-derived tryptophan metabolites and their aryl hydrocarbon receptor-dependent agonist and antagonist activities. Molecular Pharmacology 85:777-788, 2014. PMID:24563545 PMCID: PMC3990014

183. J.M. Knight, L.A. Davidson, D. Herman, C.R. Martin, J.S. Goldsby, I.V. Ivanov, S.M. Donovan and R.S. Chapkin. Non-invasive analysis of intestinal development in premature and full-term infants using RNA-Sequencing. Scientific Reports Nature 4:5453; DOI:10.1038/srep05453 (2014). PMID:24965658 PMCID: PMC4071321

184. M.J. Allen, Y.Y. Fan, J.M. Monk, T.Y. Hou, R. Barhoumi, D.N. McMurray and R.S. Chapkin. n-3 polyunsaturated fatty acids reduce Th17 differentiation by decreasing responsiveness to interleukin-6 in mouse $CD4^+$ T cells ex vivo. Journal of Nutrition 144:1306-1313, 2014. PMID:24944284 PMCID: PMC4093987

185. J.M. Monk, H.F. Turk, Y.Y. Fan, E. Callaway, B. Weeks, P. Yang, D.N. McMurray and R.S. Chapkin. Antagonizing arachidonic acid-derived eicosanoids reduces Th17 and Th1 cell-mediated inflammation and colitis severity. Mediators of Inflammation 2014:917149, 2014. PMID: 25136149 PMCID:PMC4127240

186. R. Faris, Y.Y. Fan, A. DeAngulo, R.S. Chapkin, L.A. deGraffenried and C.A. Jolly. Mitochondrial glycerol-3-phosphosphate acyltransferase-1 is essential for murine $CD4^+$ T cell metabolic activation. Biochimica et Biophysica Acta-Molecular and Cell Biology of Lipids 1842:1475-1482, 2014. PMID:25066474 PMCID: PMC4169305

187. M. Wang, M. Li, C.B. Lebrilla, R.S. Chapkin, I. Ivanov and S.M. Donovan. Fecal microbiota composition of breast-fed infants differs from formula-fed and is correlated with human milk oligosaccharides consumed. Journal of Pediatric Gastroentrology & Nutrition 60:825-833, 2015. PMID:25651488 PMCID: PMC4441539

188. Y. Cheng, U.H. Jin, C.D. Allred, A. Jayraman, R.S. Chapkin and S. Safe. Aryl hydrocarbon receptor activity of tryptophan metabolites in Young Adult Mouse Colonocytes. Drug Metabolism & Disposition 43:1526-1543, 2015. PMID: 25873348, PMCID:PMC4576676

189. Y.Y. Fan, L.A. Davidson, E.S. Callaway, G.A. Wright, S. Safe and R.S. Chapkin. A bioassay to measure energy metabolism in mouse colonic crypts, organoids and sorted stem cells. American Journal of Physiology-GI 309:G1-G9, 2015. PMID: 25977509, PMCID:PMC4491508

190. J.M. Knight, I. Ivanov, K. Triff, R.S. Chapkin and E.R. Dougherty. Detecting multivariate gene interactions in RNA-Seq data using optimal Bayesian classification. Institute of Electrical and Electronic Engineers (IEEE)/ACM Transactions on Computational Biology and Bioinformatics. 15:484-493, 2018, PMID:26441451, PMCID:PMC4818202

191. M.Y. Hong, N.D. Turner, M.E. Murphy, R.J. Carroll, R.S. Chapkin and J.R. Lupton. In vivo regulation of colonic cell proliferation, differentiation, apoptosis and P27Kip1 by dietary fish oil and butyrate in rats. Cancer Prevention Research 8:1076-1083, 2015. PMID:26323483, PMCID:PMC4633322

192. W. Ying, T. Brehm, A. Morin, V. Nair, G. Zhuang, K. Triff, H. Song, C. Chang, S. Kanameni, A. Tseng, H. Wang, F.W. Bazer[1], S. Safe, R.S. Chapkin and B. Zhou. microRNA-223 is a crucial mediator for PPARγ-regulated macrophage alternative activation. Journal of Clinical Investigation 125:4149-4159, 2015. PMID:26436647, PMCID:PMC4639972

193. V. DeClercq, D.N. McMurray and R.S. Chapkin. Obesity promotes colonic stem cell expansion during cancer initiation. Cancer Letters 369:336-343, 2015. PMID:26455770, PMCID: PMC4636003

194. T.Y. Hou, R. Barhoumi, Y.Y. Fan, G.M. Rivera, R.N. Hannoush, D.N. McMurray and R.S. Chapkin. n-3 polyunsaturated fatty acids uniquely alter phosphatidylinositol-(4,5)-bisphosphate (PIP_2) organization which precedes suppression of the $CD4^+$ T cell proliferative response. Biochimica et Biophysica – Biomembranes 1858:85-96, 2015. PMID:26476105, PMCID:PMC4663135

195. L.A. Davidson, E. Callaway, E. Kim, B. Weeks, Y.Y. Fan, C.D. Allred and R.S. Chapkin. Targeted deletion of p53 in Lgr5-expressing intestinal stem cells promotes colon tumorigenesis in a preclinical model of colitis-associated cancer. Cancer Research 75:5392-5397, 2015. PMID:26631266; PMCID:PMC4681667

196. M. Shah, E. Kim, L.A. Davidson, J.M. Knight, R. Zoh, J.S. Goldsby, E.S. Callaway, B. Zhou, I. Ivanov and R.S. Chapkin. Comparative effects of diet and carcinogen on mircoRNA expression in the stem cell niche of the mouse colonic crypt. Biochimica et Biophysica – Molecular Basis for Disease 1862:121-134, 2015. PMID:26493444; PMCID:PMC4674324

197. M. Shah, E. Kim, L.A. Davidson, J.M. Knight, R. Zoh, J.S. Goldsby, E.S. Callaway, B. Zhou, I. Ivanov and R.S. Chapkin. Data describing the effects of dietary bioactive agents on colonic stem cell microRNA and mRNA expression. Data Brief: 6:398-404, 2015. PMID:26862588, PMCID:PMC4707287

198. E.J. Kim, L.A. Davidson, R.S. Zoh, B.S. Patil, G.K. Jayaprakasha, E.S. Callaway, C.D. Allred, N.D. Turner and R.S. Chapkin. Homeostatic responses of colonic LGR5 stem cells following acute in vivo exposure to a genotoxic carcinogen. Carcinogenesis 37:206-214, 2016. PMID:26717997, PMCID:PMC4804129

199. R. Zoh, B. Mallick, J. Lampe, I. Ivanov, R.S. Chapkin and R. Carroll. PCAN: Probabilistic correlation analysis of two non-normal data sets. Biometrics 72:1358-1368, 2016. PMID:27037601, PMCID:PMC5045754

200. C.M. Whitfield, N.D. Cohen, R.S. Chapkin, B.R. Weeks, L.A. Davidson, J.S. Goldsby, C. Hunt, S. Steinmeyer, R. Menon, J.S. Sucholdolski, A. Jayaraman and R.C. Alaniz. The microbiota-derived metabolite indole decreases mucosal inflammation and injury in a murine model of NSAID enteropathy. Gut Microbes 7:246-261, 2016. PMID:27007819, PMCID:PMC4939928

201. V. DeClercq, J.S. Goldsby, D.N. McMurray and R.S. Chapkin. Distinct adipose depots from mice differentially respond to a high-fat, high-salt diet. Journal of Nutrition 146:1189-1196, 2016. PMID:27146921, PMCID:PMC4877629

202. S.M. Kim, N. Neuendorff, R.S. Chapkin and D.J. Earnest. Role of inflammatory signaling in the differential effects of saturated and poly-unsaturated fatty acids on peripheral circadian clocks. EBioMedicine 7:100-111, 2016. PMID:27322464, PMCID:PMC4913702

203. Y.Y. Fan, E. Callaway, J.M. Monk, P. Yang, L. Vincent and R.S. Chapkin. A new model to study the role of arachidonic acid in colon cancer pathophysiology. Cancer Prevention Research 9:1-8, 2016. PMID:27339171, PMCID:PMC5010973

204. J.M. Knight, E. Kim, I. Ivanov, L.A. Davidson, J.S. Goldsby, M.A. Hullar, T.W. Randolph, A.M. Kaz, L. Levy, J.W. Lampe and R.S. Chapkin. Comprehensive site-specific whole genome profiling of stromal and epithelial colonic gene expression signatures in human sigmoid colon and rectal tissue. Physiological Genomics 48:651-659, 2016. PMID:27401218, PMCID:PMC5111881.

205. E. Kim, L.A. Davidson, R.S. Zoh, M.E. Hensel, M.L. Salinas, B.S. Patil, G.K. Jayaprakasha, E.S. Callaway, C.D. Allred, N.D. Turner, B. Weeks and R.S. Chapkin. Rapidly cycling $Lgr5^{+}$ stem cells are exquisitely sensitive to extrinsic dietary factors that modulate colon cancer risk. Cell Death & Disease 7:e2460, 2016. PMID:27831561, PMCID:PMC5260883

206. S.L. Navarro, M.L. Neuhouser, T.D. Cheng, L. Tinker, J.M. Shinkany, L. Snetselaar, J.A. Martinez, I. Kato, S. A. Beresford, R.S. Chapkin and J.W. Lampe. The interaction between dietary fiber and fat and risk of colorectal cancer in the Women's Health Initiative. Nutrients 8:779, 2016. PMID: 27916893, PMCID:PMC5188434

207. Y.Y. Fan, F.M. Vaz and R.S. Chapkin. Dietary fat and fiber interactively modulate apoptosis and mitochondrial bioenergetics profiles in mouse colon in a site-specific manner. European Journal of Cancer Prevention 26:301-308, 2017. PMID:27167153, PMCID:PMC5104678

208. Y. Cheng, U. Jin, L.A. Davidson, R.S. Chapkin, A. Jayaraman, T. Phanourios, A. Orr, C. Allred, M. Denison, A. Soshilov, E. Weaver, and S.H. Safe. Microbial-derived 1,4-dihydroxy-2-naphthoic acid and related compounds as aryl hydrocarbon receptor agonists/antagonists: Structure-activity relationships and receptor modeling. Toxicological Sciences 155:485-473, 2017. PMID:27837168; PMCID:PMC5291215

209. K. Triff, M. McLean, K. Konganti, J. Pang, E. Callaway, B. Zhou, I. Ivanov and R.S. Chapkin. Assessment of histone tail modifications and transcriptional profiling during colon cancer progression reveals a global decrease in H3K4me3 activity. Biochimica et Biophysica Acta - Molecular Basis of Disease 1863:1392-1402, 2017. PMID:28315775. PMCID: PMC5474136

210. E. Kim, I. Ivanov, J. Hua, J.W. Lampe, M.A.J. Hullar, R.S. Chapkin and E.R. Dougherty. The model-based study of the effectiveness of reporting lists of small feature sets using RNA-Seq data. Cancer Informatics 16:1-15, 2017. PMID:28659712, PMCID:PMC5470876

211. C. Armstrong, K. Allred, B. Weeks, R.S. Chapkin and C. Allred. Estradiol has differential effects on acute colonic inflammation in the presence and absence of estrogen receptor β expression. Digestive Diseases and Sciences 62:1977-1984, 2017. PMID:28573506, PMCID:PMC5751962

212. R. Kumar, J.L. Herold, D. Schady, M. Martinez-Moczygemba, B.E. Murray, F. Han, Y. Li, E. Callaway, R.S. Chapkin, W. Dashwood, R.H. Dashwood, T. Berry, C. Mackenzie and Y. Xu. *Streptococcus gallolyticus* subsp. *gallolyticus* promotes colorectal tumor development. PLOS Pathogens July 13, 13(7):e1006440, 2017. PMID:28704539, PMCID:PMC5509344

213. Q. Wei, J.H. Lee, O.Y. Bongmba, G. Pradhan, Z. Sun, L. Chew, M. Bajaj, L. Chan, R.S. Chapkin, M.H. Chen and Yuxiang Sun. Adiponectin is required for maintaining normal body temperature in a cold environment. BMC Physiology, October 23: 17(1):8, 2017. PMID:29058611, PMCID:PMC5651620

214. U.H. Jin, Y. Cheng, H.J. Park, L.A. Davidson, E.S. Callaway, R.S. Chapkin, A. Jayaraman, A. Assante, C. Allred, E.A. Weaver and S. Safe. Short chain fatty acids enhance aryl hydrocarbon (Ah) responsiveness in mouse colonocytes and Caco2 human colon cancer cells. Nature Scientific Reports 7:10163, 2017. PMID:28860561, PMCID:PMC5579248

215. C. Whitfield-Cargile, N. Cohen, K. He, I. Ivanov, J. Goldsby, A. Chamoun-Emanuelli, B. Weeks, L.A. Davidson and R.S. Chapkin. The non-invasive exfoliated transcriptome (exfoliome) reflects the tissue-level transcriptome in a mouse model of NSAID-enteropathy. Nature Scientific Reports 7:14687, 2017. PMID:29089621, PMCID:PMC5665873

216. Y.Y. Fan, N.R. Fuentes, T.Y. Hou, R. Barhoumi, X.C. Li, N.E. Deutz, M.P. Engelen, D.N. McMurray and R.S. Chapkin. Remodeling of primary human $CD4^+$ T cell plasma membrane order by n-3 polyunsaturated fatty acids. British Journal of Nutrition, 119:163-175, 2018. PMID:29249211, PMCID:PMC5927572

217. S.M. Kim, N. Neuendorff, R.C. Alaniz, Y. Sun, R.S. Chapkin and D.J. Earnest. Shift work cycle-induced alterations of circadian rhythms potentiate the effects of high fat diet on inflammation and metabolism. FASEB Journal 32:3085-3095, 2018. PMID:29405095, PMCID:PMC5956251

218. U.H. Jin, H. Park, L.A. Davidson, C. Allred, B. Patil, G. Jayaprakasha, A. Orr, L. Mao, R.S. Chapkin, A. Jayaraman, P. Tamamis and S.H. Safe. Structure-dependence modulation of aryl hydrocarbon receptor-mediated activities by flavones. Toxicological Sciences 164:2050217, 2018. PMID:29584932, PMCID:PMC6016704

219. K. Triff, M. McLean, E. Callaway, J. Goldsby, I. Ivanov and R.S. Chapkin. Dietary fat and fiber interact to uniquely modify global histone post-translational epigenetic programming in a rat colon cancer progression model. International Journal of Cancer 143:1402-1415, 2018. PMID:29659013, PMCID:PMC6105390

220. P.A. Asbell, M.G. Maguire, M. Pistilli, G.S. Ying, L.B. Szczotka-Flynn, D.R. Hardten, M.C. Lin, R.M. Shtein, R.S. Chapkin and collaborators. n-3 Fatty acid supplementation for the treatment of dry eye disease. New England Journal of Medicine 378:1681-1690, 2018. PMID:29652551, PMCID:PMC5952353

221. N.R. Fuentes, M. Mlih, R. Barhoumi, P. Hardin, T. Steele, S. Behmer, I. Prior, J. Karpac and R.S. Chapkin. Long chain n-3 fatty acids attenuate oncogenic Ras-driven proliferation by altering plasma membrane nanoscale proteolipid composition. Cancer Research 78:3899-3912, 2018. PMID:29769200, PMCID:PMC6050089

222. S. Safe, H. Han, J. Goldsby, K. Mohankumar and R.S. Chapkin. Aryl hydrocarbon receptor (AhR) ligands as selective AhR modulators: Genomic studies. Current Opinion in Toxicology 11-12:10-20, 2018. PMID31453421, PMCID:PMC6709982.

223. E. Kim, G.A. Wright, R.S. Zoh, B.S. Patil, G.K, Jayaprakasha, E.S. Callaway, I. Ivanov, N.D. Turner and R.S. Chapkin. Establishment of a multi-component dietary bioactive human equivalent dose to delete damaged $Lgr5^{+}$ stem cells using a mouse model of colon tumor initiation. European Journal of Cancer Prevention 28:383-389, 2019. PMID:30234553, PMCID:PMC6422758

224. J.W. Lampe, E. Kim, L. Levy, L.A. Davidson, J.S. Goldsby, F.L. Miles, S.L. Navarro, T.W. Randolph, N. Zhao, I. Ivanov, A.M. Kaz, C. Damman, D.M. Hockenbery, M.A.J. Hullar and R.S. Chapkin. Colonic mucosal and exfoliome transcriptomic profiling and fecal microbiome response to flaxseed lignan extract intervention in humans. American Journal of Clinical Nutrition 110:377-390, 2019. PMID:31175806, PMCID:PMC6669062

225. A.M. Torres-Adorno, H. Vitrac, Y. Qi, L. Tan, K.R. Levental, Y.Y. Fan, P. Yang, R.S. Chapkin, B.L. Eckhardt and N.T. Ueno. Eicosapentaenoic acid in combination with EPHA2 inhibition shows efficacy in preclinical models of triple-negative breast cancer by disrupting cellular cholesterol efflux. Oncogene 38:2135-2150, 2019. PMID:30459358, PMCID:PMC6430703

226. H. Park, U. Jin, A. Orr, S. Echegaray, L.A. Davidson, C.D. Allred, R.S. Chapkin, A. Jayaraman, K. Lee, P. Tamamis and S.H. Safe. Isoflavones as Ah receptor agonists in colon-derived cell lines: Structure-activity relationships. Chemical Research in Toxicology 32:2353-2364, 2019. PMID:31621310, PMCID:PMC6938648

227. G.L. Wyatt, C. Young, L. Crump, V. Wessells, T. Gustafson, Y.Y. Fan, R.S. Chapkin, W. Porter and T. Lyons. Cross-talk between SIM2s and NFkB regulates cyclooxygenase 2 expression in breast cancer. Breast Cancer Research 21:131, 2019. PMID:31783895

228. E.J. Kuklinski, M.H. Hom, G.S. Ying, M.C. Lin, R.S. Chapkin, R. Jones, A. Moser, K.Y. Kim, M.G. Maguire, P.A. Asbell and the DREAM Study Research Group. Associations between systemic n-3 fatty acid levels with moderate to severe dry eye disease signs and symptoms at baseline in the Dry Eye Assessment and Management (DREAM) study. Eye and Contact Lens (Feb 24), 2020. PMID:32097181

229. M.L. Salinas, N.R. Fuentes, R. Choate, D.N. McMurray and R.S. Chapkin. AdipoRon attenuates Wnt signaling by reducing cholesterol-dependent membrane rigidity. Biophysical Journal 118:885-897, 2020. PMID:31630812, PMCID:PMC7036725

230. E. Garcia-Villatoro, K. Allred, L.A. Davidson, E. Callaway, M. Hensel, R. Menon, S. Safe, A. Jayaraman, R.S. Chapkin and C. Allred. Effects of high fat diet and intestinal aryl hydrocarbon receptor deletion on colon cancer risk. American Journal of Physiology – Gastrointestinal and Liver Physiology 318:G451-G463, 2020. PMID:31905023, PMCID:PMC7137094

231. K.R. Levental, E. Malmberg, Y.Y. Fan, R.S. Chapkin, R. Ernst and I. Levental. Lipidomic and biophysical homeostasis of mammalian membranes in response to dietary lipids is essential for cellular fitness. Nature Communications 11:1339, 2020. PMID:32165635, PMCID:PMC7067841

232. M.C. Coleman, C.M. Whitfield-Cargile, N.D. Cohen, J.L. Goldsby, L. Davidson, A. Chamoun-Emanuelli, I. Ivanov, S. Eades, N. Ing and R.S. Chapkin. Non-invasive evaluation of the equine gastrointestinal mucosal transcriptome. PLOS One 15:e0229797, 2020. PMID:3217610, PMCID:PMC7075554

233. S.L. Navarro, L. Levy, K.R. Curtis, I. Elkon, O.J. Kahsai, H.S. Ammar, T.W. Randolph, N.N. Hong, F.C. Neto, D. Raftery, R.S. Chapkin, J.W. Lampe and M.A.J. Hullar. Effect of flaxseed lignan intervention on circulating bile acids in a placebo-controlled randomized crossover trial. Nutrients 12:1837, 2020. PMID:32575611, PMCID:PMC7374341

234. H. Han, L.A. Davidson, Y.Y. Fan, J. Goldsby, G. Yoon, U. Jin, G.A. Wright, K. Landrock, B.R. Weeks, R.C. Wright, C.D. Allred, A. Jayaraman, I. Ivanov, J. Roper, S.H. Safe and R.S. Chapkin. Loss of aryl hydrocarbon receptor signaling potentiates FoxM1 signaling to enhance self-renewal of colonic crypt $Lgr5^{+}$ stem and progenitor cells. EMBO Journal 39: e104319, 2020. PMID:32915464, PMCID:PMC7527924

235. F. Yang, J. DeLuca, R. Menon, E. Garcia-Villatoro, E. Callaway, K. Landrock, K. Lee, S. Safe, R.S. Chapkin, C. Allred and A. Jayaraman. Effect of diet and intestinal AhR expression on fecal microbiome and metabolomic profiles. Microbial Cell Factories 19:219, 2020. PMID:33256731, PMCID:PMC7708923

236. S. Athinarayanan, Y.Y. Fan, X. Wang, E. Callaway, D. Cai, N. Chalasani, R.S. Chapkin and W. Liu. Fatty acid desaturase 1 (FADS1) influences hepatic lipid homeostasis by modulating the PPARα-FGF21 axis. Hepatology Communications 5:461-477, 2021. PMID:33681679, PMCID:PMC7917273

237. H. Park, U. Jin, K. Karki, A. Jayaraman, C. Allred, S. Mittal, S. Michelhaugh, R.S. Chapkin and S. Safe. Dopamine is an aryl hydrocarbon receptor agonist. Biochemical Journal (In Press) PMID: 32905582.

238. H. Park, U. Jin, K. Karki, C. Allred, L. Davidson, R.S. Chapkin, A. Asuka, F. Nowsday, A. Jayaraman, P. Tamamis, S.H. Safe. Hydroxylated chalcones as aryl hydrocarbon receptor agonists: Structure activity effects. Toxicological Sciences 180:148-159, 2021. PMID:33263770.

239. K. He, S.M. Donovan, I. Ivanov, J. Goldsby, L.A. Davidson and R.S. Chapkin. Assessing the multivariate relationship between the human infant intestinal exfoliated cell transcriptome (exfoliome) and microbiome in response to diet. Microorganisms 8:2032, 2020. PMID:33353204, PMCID:PMC7766018

240. H. Han, L.A. Davidson, M. Hensel, J. Goldsby, G. Yoon, K. Landrock, C. Allred, A. Jayaraman, I. Ivanov, S.H. Safe and R.S. Chapkin. Loss of aryl hydrocarbon receptor promotes colon tumorigenesis in ApcS580/+; KrasG12D/+ mice. Molecular Cancer Research Jan 25, 2021. PMID: 33495399

241. N. Fuentes, M. Mlih, X. Wang, G. Webster, S. Cortes-Acosta, I. Corbin, J. Karpac and R.S. Chapkin. Membrane therapy using docosahexaenoic acid suppresses EGFR signaling by disrupting cholesterol-dependent nanocluster formation. Journal of Lipid Research (In Press). PMID:33515553

242. F. Zhou, K. He, Q. Li, R.S. Chapkin and Y. Ni. Bayesian biclustering for metagenomic sequencing data via multinomial matrix factorization. Biostatistics (In Press, 2021). PMID: 33634824

243. E. Kim, N.R. Fuentes, M.L. Salinas, A. Erazo-Oliveras, M.J. George, R.S. Zoh, M.E. Hensel, B.S. Patil, G.K. Jayaprakasha, E.S. Callaway, I. Ivanov, N.D. Turner, B.R. Weeks and R.S. Chapkin. Increased plasma membrane order associated with oncogenic Apc and Kras signaling promotes colonocyte proliferation. (Submitted for publication).

244. H. Park, U.H. Jin, Y.Y. Fan, Y. Cheng, L.A. Davidson, K. Landrock, C. Allred, R. Menon, A. Jayaraman, R.S. Chapkin and S. Safe. Role of the aryl hydrocarbon receptor (AhR) in mediating the effects of coffee in the colon. (Submitted for publication).

245. A. Roitershtein, R. Rastegar, R.S. Chapkin and I. Ivanov. Extinction scenarios in evolutionary processes: A multinomial Wright-Fisher approach. (Submitted for publication).

246. J. Choi, R.S. Chapkin and Y. Ni. Bayesian causal structural learning with zeo-inflated Poisson Bayesian networks. (Submitted for publication).

247. F. Zhou, K. He, J.J. Cai, L.A. Davidson, R.S. Chapkin and Y. Ni. A unified Bayesian framework for bi-overlapping-clustering multi-omic data via sparse matrix factorization. (Submitted for publication).

248. F. Zhou, R.S. Chapkin and Y. Ni. BN-LTE: Bayesian Networks with Latent Trajectory Embedding. (Submitted for publication).

249. R. Menon, E. Garcia-Villatoro, E. Callaway, C. Klemashevich, K. Allred, L. Davidson, S. Safe, R.S. Chapkin, C. Allred and A. Jayaraman. Effect of aryl hydrocarbon receptor deletion and high fat diet on fecal microbiome and intestinal inflammation. (Submitted for publication).

250. H. Han, L.A. Davidson, K. Landrock, A. Jayaraman, S.H. Safe and R.S. Chapkin. Loss of arylhydrocarbon receptor suppresses the response of colonic epithelial cells to IL22 signaling by upregulating SOCS3. (Submitted for publication).

251. D. Osorio, Y. Zhong, G. Li, Q. Xu, A. Hillhouse, J. Chen, L.A. Davidson, Y. Tian, R.S. Chapkin, J.Z. Huang and J.J. Cai. scTenifoldKnk: A machine learning workflow performing virtual knock out experiments on single-cell gene regulatory networks. (Submitted for publication).

252. J. Lee, C. Fang, X. Li, C.S. Wu, J.Y. Noh, X. Ye, R.S. Chapkin, K. Sun and Y. Sun. GHS-R suppression in adipose tissues protects against obesity and insulin resistance by regulating adipose angiogenesis and fibrosis. (Submitted for publication).

253. G. Yoon, L.A. Davidson, J.S. Goldsby, D.A. Mullens, I. Ivanov, S.M. Donovan and R.S. Chapkin. Exfoliated epithelial cell transcriptome reflects both small and large intestinal cell signatures in piglets. (Submitted for publication).

Invited Reviews

1. R.S. Chapkin and V.A. Ziboh. The metabolism and function of skin lipids. Progress in Lipid Research 27:81-105, 1988. PMID: 3060882

2. Y.-Y. Fan and R.S. Chapkin. Significance of dietary gamma-linolenic acid. Journal of Nutrition 128:1411-1414, 1998. PMID: 9732298

3. D.W.L. Ma, J. Seo, K.C. Switzer, Y.Y. Fan, D.N. McMurray, J.R. Lupton and R.S. Chapkin. n-3 PUFA and membrane microdomains: a new frontier in bioactive lipid research. Journal of Nutritional Biochemistry 15:700-706, 2004. PMID: 15590275

4. K.C. Switzer, D.N. McMurray and R.S. Chapkin. Effects of dietary n-3 polyunsaturated fatty acids on T cell membrane composition and function. Lipids 39: 1163-1170, 2004. PMID:15736911

5. R.S. Chapkin, D.N. McMurray and J.R. Lupton. Colon cancer, fatty acids and anti-inflammatory compounds. Current Opinion in Gastroenterology 23:48-54, 2007. PMID:17133085

6. R.S. Chapkin, J. Seo, D.N. McMurray and J.R. Lupton. Mechanisms by which docosahexaeonic acid and related fatty acids reduce colon cancer risk and inflammatory disorders of the intestine. Chemistry and Physics of Lipids 153:14-23, 2008. PMID: 18346463 PMCID:PMC2430411

7. V.E. Kagan, A. Bayir, H. Bayir, D. Stoyanovsky, G.G. Borienko, Y.Y. Tyurina, P. Wipf, J. Atkinson, J.S. Greenberger, R. S. Chapkin and N.A. Belikova. Mitochondria-targeted disruptors and inhibitors of cyt c/CL peroxidase complexes: A new strategy in anti-apoptotic drug discovery. Molecular Nutrition Food Research 53:104-114, 2009. PMID: 18979502 PMCID: PMC2659540

8. W. Kim, D.N. McMurray and R.S. Chapkin. Chemotherapeutic properties of n-3 polyunsaturated fatty acids – Old concepts and new insights. Immunology, Endocrine & Metabolic Agents in Medicinal Chemistry 9:38-44, 2009. PMID: 19823600 PMCID: PMC 2759763

9. R.S. Chapkin, W. Kim, J.R. Lupton and D.N. McMurray. Dietary docosahexaenoic and eicosapentaenoic acid: Emerging mediators of inflammation. Prostaglandins Leukotrienes & Essential Fatty Acids 81:187-191, 2009. PMID: 19502020 PMCID: PMC2755221

10. W. Kim, D.N. McMurray and R.S. Chapkin. n-3 polyunsaturated fatty acids – physiological relevance and dose. Prostaglandins Leukotrienes & Essential Fatty Acids 82:155-158, 2010. PMID: 20188532 PMCID: PMC2875929

11. W. Kim, N.A. Khan, D.N. McMurray, I.A. Prior, N. Wang and R.S. Chapkin. Regulatory activity of polyunsaturated fatty acids in T-cell signaling. Progress in Lipid Research 49:250-261, 2010. PMID: 20176053 PMCID: PMC2872685

12. R.S. Chapkin and S.M. Donovan. Diapers' contents could revolutionize the way we monitor infant intestinal development and disease susceptibility. Pediatrics for Parents; The Newsletter for Caring Adults, 2011.

13. D.N. McMurray, D.L. Bonilla and R.S. Chapkin. n-3 Fatty acids uniquely affect anti-microbial resistance and immune cell plasma membrane organization. Chemistry and Physics of Lipids 164:626-635, 2011. PMID: 21798252 PMCID: PMC 3183364

14. J.M. Monk, T. Hou and R.S. Chapkin. Nutritional immunology: Role in health and disease. Expert Reviews in Clinical Immunology 7:747-749, 2011. PMID: 22014015 PMCID: PMC4419751

15. S.R. Shaikh, C.A. Jolly and R.S. Chapkin. n-3 Polyunsaturated fatty acids exert immunomodulatory effects on lymphocytes by targeting plasma membrane molecular organization. Molecular Aspects of Medicine 33:46-54, 2012. PMID: 22020145 PMCID: PMC3246093

16. S.M. Donovan, M. Wang, M. Li, I. Friedberg, S.L. Schwartz and R.S. Chapkin. Host-microbe interactions in the neonatal intestine: Role of human milk oligosaccharides. Advances in Nutrition 3:450S-455S, 2012. PMID:22585924 PMCID: PMC3649482

17. H.F. Turk and R.S. Chapkin. Membrane lipid raft organization is uniquely modified by n-3 polyunsaturated fatty acids. Prostaglandins Leukotrienes & Essential Fatty Acids 88:43-47, 2013. PMID: 22519542 PMCID:PMC:3404206

18. M.S. Shah, L.A. Davidson and R.S. Chapkin. Mechanistic insights into the role of microRNAs in cancer: Influence of nutrient crosstalk. Frontiers in Genetics 2012;3:305. Epub 2012 Dec 28. PMID:23293655 PMCID: PMC3531809

19. N.D. Turner, L.E. Ritchie, R.S. Bresalier and R.S. Chapkin. The microbiome and colorectal neoplasia – Environmental modifiers of dysbiosis. Current Gastroenterology Reports 15:346, 2013. PMID: 3949252. PMCID:PMC3807587

20. S.M. Donovan, M. Wang, M.H. Monaco, C.R. Martin, L.A. Davidson, I. Ivanov and R.S. Chapkin. Noninvasive molecular fingerprinting of host microbiome interaction in neonates. FEBS Letters 588:4112-4119, 2014. PMID: 25042036 PMCID: PMC4253854

21. R.S. Chapkin, V. DeClercq, E. Kim, N.R. Fuentes and Y.Y. Fan. Mechanisms by which pleiotropic amphiphilic n-3 PUFA reduce colon cancer risk. Current Colorectal Cancer Reports 10:442-452, 2014. PMID: 25400530. PMCID: PMC4228477

22. K. Triff, E. Kim and R.S. Chapkin. Chemoprotective epigenetic mechanisms in a colorectal cancer model: Modulation by n-3 PUFAs in combination with fermentable fiber. Current Pharmacology Reports 1:11-20, 2015. PMID:25938013 PMCID: PMC4414264

23. T.Y. Hou, D.N. McMurray and R.S. Chapkin. Omega-3 fatty acids, lipid rafts, and T cell signaling. European Journal of Pharmacology 785:2-9, 2016. PMID: 26001374, PMCID:PMC4654711

24. T.Y. Hou, E. Kim, Y.Y. Fan, N.R. Fuentes, L.A. Davidson and R.S. Chapkin. Nutrient-gene interaction in colon cancer, from the membrane to cellular physiology. Annual Review of Nutrition 36:543-570, 2016. PMID:27431370, PMCID:PMC5034935

25. N.R. Fuentes, M.L. Salinas, E. Kim and R.S. Chapkin. Emerging role of chemoprotective agents in the dynamic shaping of plasma membrane organization. Biochimica et Biophysica Acta-Biomembranes 1859:1668-1678, 2017. PMID:28342710, PMCID:PMC5501766

26. D.V. Seidel, M.A Azcarate-Peril, R.S. Chapkin and N.D. Turner. Shaping functional gut microbiota using dietary bioactives to reduce colon cancer risk. Seminars in Cancer Biology 46:191-204, 2017. PMID:28676459, PMCID:PMC5626600

27. N.R. Fuentes, E. Kim, Y.Y. Fan, and R.S. Chapkin. Omega-3 fatty acids, membrane remodeling and cancer prevention. Molecular Aspects of Medicine 64:79-91, 2018. PMID:29627343, PMCID:PMC6185832

28. R.S. Chapkin. Relationships between the gut microbiome, diet, and colorectal cancer. Oncology 32:248-249, 2018. PMID:29847856

29. A. Erazo-Oliveras, N.R. Fuentes, R.C. Wright and R.S. Chapkin. Functional link between plasma membrane spatiotemporal dynamics, cancer biology and membrane altering agents. Cancer & Metastasis Reviews 37:519-544, 2018. PMID:29860560, PMCID:PMC6296755

30. R.S. Chapkin, S.L. Navarro, M.A.J. Hullar, and Johanna W. Lampe. Diet and gut microbes act coordinately to enhance programmed cell death and reduce colorectal cancer risk. Digestive Diseases and Sciences 65:840-851, 2020. PMID:32006211, PMCID: PMC7605510

31. R.S. Bresalier and R.S. Chapkin. Human microbiome in health and disease: The good, the bad, and the bugly. Digestive Diseases and Sciences 65:671-673, 2020, PMID:32076932.

32. S. Safe, A. Jayaraman and R.S. Chapkin. Ah receptor ligands and their impacts on gut resilience: Structure-activity effects. Critical Reviews in Toxicology 50:463-473, 2020, PMID: 32597352.

33. S. Safe, U. Jin, H. Park, R.S. Chapkin and A. Jayaraman. Aryl hydrocarbon (AhR) ligands as selective AhR modulators (SAhRMs). International Journal of Molecular Sciences 21:6654, 2020, PMID: 32932962

34. H. Han, A. Jayaraman, S. Safe and R.S. Chapkin. Targeting the aryl hydrocarbon receptor in stem cells to improve the use of food as medicine. Current Stem Cell Reports (In Press).

35. S. Safe, A. Jayaraman, R.S. Chapkin, M. Howard, K. Mohankumar and R. Shretha. Flavonoids: Structure-function and mechanisms of action and opportunities for drug development. Toxicological Research (In Press).

36. H. Han, S. Safe, A. Jayaraman, and R.S. Chapkin. Diet-microbiota interactions shape aryl hydrocarbon receptor ligand production to modulate intestinal homeostasis. Annual Review of Nutrition (In Press).

Book Chapters

1. R.S. Chapkin, S.D. Somers and K.L. Erickson. Inability of murine peritoneal macrophages to convert linoleic acid into arachidonic acid: Evidence of chain elongation. Proceedings of the 1987 Conference of Polyunsaturated Fats and Eicosanoids, American Oil Chemists Society, (Lands, W.E.M. ed.), pp. 395-398.

2. K.L. Erickson, S.D. Somers and R.S. Chapkin. Mechanisms of dietary fat involvement in tumorigenesis: Role of fatty acids and eicosanoids in macrophage function. In: Carcinogenesis and Dietary Fat, (Abraham, S. ed.), Alan R. Liss Publ., New York, pp. 377-395, 1989.

3. R.S. Chapkin, S.D. Somers and K.L. Erickson. Effects of dietary fish oil on *in vitro* murine peritoneal macrophage cytolytic function. In: The Pharmacologic Effect of Lipids III, (Kabara, J.J. ed.), American Oil Chemists' Society, pp. 194-202, 1990.

4. R.S. Chapkin. Reappraisal of the essential fatty acids. In: Fatty Acids in Food and Their Health Implications. (Chow, C.K. ed.), Marcel Dekker, Inc., pp. 429-436, 1992.

5. R.S. Chapkin and J.R. Lupton. Dietary fat-fiber interactions: Effect on colonic mediators of cell cytokinetics. In: Diet and Cancer Markers, Prevention and Treatment. (Jacobs, M.M., ed.), Plenum Press, Advances in Experimental medicine and Biology, vol. 354, p. 222, 1994.

6. R.S. Chapkin, Y.Y. Fan and K.S. Ramos. Impact of dietary gammalinolenic acid on macrophage-smooth muscle cell interactions: Down-regulation of vascular smooth muscle cell DNA synthesis. In: Gamma-Linolenic Acid: Metabolism and Role in Nutrition and Medicine. (Huang, Y.S. and Mill, D.E. eds.), American Oil Chemists' Society, pp. 218-226, 1996.

7. R.S. Chapkin, Y.H. Jiang, L.A. Davidson and J.R. Lupton. Modulation of intracellular second messengers by dietary fat during colonic tumor development. In: Dietary fat and cancer: Genetic and molecular interactions. (Butrum, R. ed.), Plenum Publishing, New York, Advances in Experimental Medicine and Biology 422:85-96, 1997.

8. J.R. Lupton, W.C.L. Chang, M.Y. Hong and R.S. Chapkin. Diet effects on apoptosis during colon carcinogenesis. In: Apoptosis in Cancer. Annals of the Academy of Studenica, Institute of Oncology, Yugoslavia, pp. 37-40, 1998.

9. R.S. Chapkin, D.N. McMurray and C.A. Jolly. Dietary n-3 polyunsaturated fatty acids modulate T-lymphocyte activation: Clinical relevance in treating diseases of chronic inflammation. In: Nutrition and Immunology: Principles and Practice. (Gershwin, M.E., German, B. and Keen, C. eds.), Plenum Publishing, New York, pp. 121-134, 1999.

10. Y.Y. Fan, K.S. Ramos and R.S. Chapkin. Modulation of atherogenesis by dietary gamma-linolenic acid. In: Eicosanoids and Other Bioactive Lipids in Cancer, Inflammation and Related Diseases, 4. (Honn, K.U., ed.), Advances in Experimental Medicine and Biology 469: 485-492, 1999. Plenum Press, New York.

11. R.S. Chapkin. Reappraisal of the essential fatty acids. In: Fatty Acids in Food and Their Health Implications. (Chow, C.K. ed.), Marcel Dekker, Inc., 2nd edition. pp.557-568, 1999.

12. R.S. Chapkin and J.R. Lupton. Colonic cell proliferation and apoptosis in rodent species: Modulation by diet. In: Colon Cancer Prevention: Dietary Modulation of Cellular and Molecular Mechanisms. Advances in Experimental Medicine and Biology. 470:105-118. 1999.

13. E.D. Collett, L.A. Davidson, J.R. Lupton and R.S. Chapkin. Dietary fish oil reduces colon cancer risk. In: Current Organic Chemistry: Omega-3-fatty acids and health. Eds: L. Jenski, R. Siddiqui and W. Stillwell. 4:945-957, 2000.

14. Y.Y. Fan, K.S. Ramos and R.S. Chapkin. Antiatherogenic potential of gamma-linolenic acid. In: Gammalinolenic acid. Ed. V. Huang. American Oil Chemists Society Publishing, Champaign, IL. pp.169-179, 2001.

15. J.S. Morris, N. Wang, J.R. Lupton, R.S. Chapkin, N.D. Turner, M.Y. Hong and R.J. Carroll. Understanding the relationship between carcinogen-induced DNA adduct levels in distal and proximal regions of the colon. Adv. Exp Med Biol. 537:105-16, 2003.

16. J.R. Lupton and R.S. Chapkin. Chemopreventive effects of Omega-3 fatty acids. In: Cancer Chemo prevention; Vol I: Promising Cancer Chemopreventive Agents. Ed. G.J. Kelloff, E.T. Hawk and C.C. Sigman, Humana Press, Totowa, NJ, p. 591-608, 2004.

17. W. Stillwell, S.R. Shaikh, D. LoCascio, R.A. Siddiqui, J. Seo, R.S. Chapkin and S.R. Wassall. Docosahexaenoic acid. An influential membrane-altering omega-3 fatty acid. In: Frontiers in Nutrition Research, Nova Science Publishers, Inc, Hauppauge, NY, Chapter 8, pp. 249-271, 2006.

18. N.D. Turner, J. Vanamala, T. Leonardi, B.S. Patil, M. Murphy, Y.C. Liu, N. Wang, L. Pike, R.S. Chapkin, and J.R. Lupton. Comparison of the chemoprotection conferred by grapefruit and isolated bioactive compounds against colon cancer. In: Potential Health Benefits of Citrus. Eds. B.S. Patil, J.S. Brodkelt, E.G. Miller and N.D. Turner, American Chemical Society Symposium 936, p. 121-129, Washington, D.C., 2006.

19. R.S. Chapkin. Reappraisal of the essential fatty acids. In: Fatty Acids in Food and Their Health Implications, 3rd Edition. (Chow, C.K. ed.), CRC Press, pp. 675-691, 2008.

20. W. Kim, R.S. Chapkin, R. Barhoumi and D.W.L. Ma. A novel role for nutrition in the alteration of functional microdomains on the cell surface. In: Methods in Molecular Biology – Protocols series (Lipidomics). Armstrong, D. ed., Humana Press Inc, Vol. 279, pp. 261-270, 2009. PMCID: PMC2821694

21. J.M. Monk, D.N. McMurray and R.S. Chapkin. Clinical effects of n-3 PUFA supplementation in health and inflammatory diseases. In: Omega 3 oils: Applications in Functional Foods. Eds., E. Hernandez and M. Hoskawa. American Oil Chemists' Society, pp. 31-60, 2011.

22. H.F. Turk, J.M. Monk, T.Y. Hou and R.S. Chapkin. Omega-3 fatty acids in cancer prevention: a membrane perspective. In: Obesity, Inflammation and Cancer (Energy Balance and Cancer, Volume 7). Nathan A. Berger—Series Editor Andrew J. Dannenberg, and Nathan A. Berger, Book Co-Editors, Springer Press, 2013, DOI 10.1007/978-1-4614-6819-6_12.

23. H.F. Turk and R.S. Chapkin. Analysis of receptor epidermal growth factor receptor dimerization by BS(3) crosslinking. In: Methods in Molecular Biology – Receptor Tyrosine Kinases. Germano, S. ed., Humana Press Inc, Vol. 1233, pp. 24-34, 2015. Doi:10.1007/979-1-4939-1789-1_3. PMID:25319886

24. M. Wang, I. Ivanov, L.A. Davidson, R.S. Chapkin and S.M. Donovan. Infant Nutrition and the Microbiome: Systems Biology Approaches to Uncovering Host-Microbe Interactions. In: Nutrigenomics and Proteomics in Health and Disease: Towards a Systems-Level Understanding of Gene-Diet Interactions, 2nd Edition, Eds., M. Kussmann and P. Stover, Wiley Publishing, 2017.

25. T. Hou, D.N. McMurray and R.S. Chapkin. Omega-3 fatty acids and T-cell responses. In: Nutrition, Immunity, and Infection. Eds., P.C. Calder and A.D. Kulkarni, CRC Press, 2018.

26. Y.Y. Fan, L.A. Davidson and R.S. Chapkin. Murine colonic organoid culture system and downstream assay applications. Methods in Molecular Biology, Vol. 1576, pp. 171-181, 2019. Turksen, K. ed., Springer Science. PMID:27539462, PMCID:PMC5316509

27. N.R. Fuentes, M.L. Salinas, X. Wang, Y.Y. Fan and R.S. Chapkin. Assessment of plasma membrane fatty acid composition and fluidity using imaging flow cytometry. Methods in Molecular Biology, Ras activity and signaling, vol. 2262. Eds, I. Rubio and I. Prior, Springer Nature (In Press).

ABSTRACTS

1. R.S. Chapkin, B. Haberstroh, T. Liu and B.J. Holub. Altered phospholipid and fatty acid metabolism in serum and high-density lipoproteins of renal patients on maintenance hemodialysis. Presented at the 4th joint meeting of the AIN, ASCN, CSNS, Penn State University, July 23, 1982. Journal of Nutrition, Suppl. XXV:62, 1982.

2. R.S. Chapkin, V.A. Ziboh, C.L. Marcelo and J.J. Voorhees. Enzyme preparations from human epidermis lack the capacity to transform linoleic acid (18:2n6) and gammahomolinolenic acid (20:3n6) into arachidonic acid (20:4n6). Presented at the 1985 national meeting of the Society for Investigative Dermatology 84(4):348, 1985.

3. R.R. Isseroff, D.T. Martinez, R.S. Chapkin and V.A. Ziboh. Synthesis of arachidonic acid from exogenous linoleic acid by cultured mouse keratinocytes. Presented at the 1985 national meeting of the Society for Investigative Dermatology. Washington, D.C., May 4, 1985. Journal of Investigative Dermatology 84(4):329, 1985.

4. R.S. Chapkin and V.A. Ziboh. Inability of skin enzyme preparations to synthesize arachidonic acid from linoleic acid. Presented at the 76th American Oil Chemists' Annual Meeting, Philadelphia, PA, May 8, 1985. Journal of the American Oil Chemists Society 62(4):616, 1985.

5. R.S. Chapkin, and V.A. Ziboh. Generation of novel metabolites of dietary linoleic acid (18:2n6) by guinea pig epidermis. Presented at the 70th annual meeting for the Federation of American Societies for Experimental Biology. St. Louis, MO, April 17, 1986. Federation Proceedings 45(4):976, 1986.

6. R.S. Chapkin, V.A. Ziboh, C.L. Marcelo and J.J. Voorhees. Human epidermal enzyme preparations can elongate gammalinolenic acid (18:3n6) into gamma-homolinolenic acid (20:3n6). Presented at the 1986 national meeting of the Society for Investigative Dermatology. Washington, D.C., May 2, 1986. Journal of Investigative Dermatology 86(4):468, 1986.

7. R.S. Chapkin and V.A. Ziboh. Alterations of epidermal lipid metabolism in essential fatty acid deficient guinea pigs. Presented at the 5th Joint Meeting of AIN, ASCN, and CSNS, University of California, Davis, July 23, 1986. Journal of Nutrition 116(6):xxi, 1986.

8. V.A. Ziboh and R.S. Chapkin. Biological significance of polyunsaturated fatty acids in the skin. Presented at the 36th Annual Symposium on the Biology of Skin, Glenedan Beach, Oregon, October 20, 1986.

9. R.S. Chapkin, S.D. Somers and K.L. Erickson. Inability of peritoneal macrophages to convert linoleic acid into arachidonic acid: Evidence of chain elongation. Presented at the American Oil Chemists' Conference on Polyunsaturated Fats and Eicosanoids, Biloxi, MI, May 16, 1987.

10. R.S. Chapkin, S.D. Somers and K.L. Erickson. Suppression of *in vitro* activation of tumoricidal function in peritoneal macrophages from fish oil fed mice. Presented at the 79th American Oil Chemists' Annual Meeting, Phoenix, Arizona, May 1988, Journal of the American Oil Chemists' Society 65:471, 1988.

11. R.S. Chapkin, C.C. Miller, S.D. Somers and K.L. Erickson. Ability of monohydroxyeicosatrienoic acid (15-OH-20:3) to modulate macrophage arachidonic acid metabolism. Presented at the 72nd annual meeting for the Federation of American Societies for Experimental Biology, Las Vegas, Nevada, May 1988, FASEB J. 2(5) :A1264.

12. K.L. Erickson, R.S. Chapkin and S.D. Somers. Dietary fish oil specifically alters murine peritoneal macrophage activation and function assessed *in vitro*. Presented at the 72nd annual meeting for the Federation of American Societies for Experimental Biology, Las Vegas, Nevada, May 1988, FASEB J. 2(4):A685.

13. D.K. Buckman, R.S. Chapkin, N.E. Hubbard and K.L. Erickson. Linoleic acid metabolism in murine mammary tumor cells. Presented at the American Society for Biochemistry and Molecular Biology Meeting, San Francisco, California, January 1989, J. Cell Biol. 107(6):862a.

14. R.S. Chapkin, D.K. Buckman, C.C. Miller, N.E. Hubbard and K.L. Erickson. Delta 5 desaturase regulates eicosanoid metabolism in murine mammary tumor cells. Presented at the 73rd annual meeting of the Federation of American Societies for Experimental Biology, New Orleans, Louisiana, March 1989, FASEB J. 3(3):A470.

15. D.K. Buckman, R.S. Chapkin and K.L. Erickson. The effect of oleic acid on the growth and metastasis of a murine mammary tumor. Presented at the 73rd annual meeting of the Federation of American Societies for Experimental Biology, New Orleans, Louisiana, March 1989, FASEB J. 3(3)A470.

16. R.S. Chapkin and S.L.Carmichael. Effect of fish oil feeding on macrophage choline and ethanolamine glycerophospholipid subclasses. Presented at the 74th annual meeting of the Federation of American Societies of Experimental Biology, Washington D.C., April 1990, FASEB J. 4(3):A796.

17. C.C. Akoh, R.S. Chapkin and R.E. Lewis. Dietary fish oil modulation of peritoneal macrophage LTE_4 production and phagocytosis. Presented at the 74th annual meeting of the Federation of American Societies of Experimental Biology, Washington D.C., April 1990, FASEB J. 4(3):A796.

18. R.S. Chapkin, N.E. Hubbard and K.L. Erickson. Effect of dietary n-3 fatty acids on macrophage peptido-leukotriene synthesis: Potential modulation of cytolytic function. Presented at the VIII Texas Carcinogenesis Meeting, University of Texas Syster Cancer Center, Science Park-Research Division, Smithville, Texas, Friday, October 5, 1990.

19. D-Y. Lee*, J.R. Lupton and R.S. Chapkin. Prostaglandin profile and synthetic capacity of the colon: Comparison of tissue sources and subcellular fractions. Presented at the 75th annual meeting of the Federation of American Societies of Experimental Biology, Atlanta, GA, April 1991, FASEB J. 5(6):A1757. *Winner of the 1991 American Society for Nutritional Sciences (ASNS) Graduate Student Research Award.

20. R.S. Chapkin, C.C. Akoh and C.C. Miller. Alteration of mouse peritoneal macrophage phospholipid molecular species by dietary fish oil. Presented at the 75th annual meeting of the Federation of American Societies of Experimental Biology, Atlanta, GA, April 1991, FASEB J. 5(5):A1302.

21. N.E. Hubbard, R.S. Chapkin and K.L. Erickson. Effect of diets containing n-3 fatty acids on the production of 5-series peptido-leukotrienes by peritoneal macrophages. Presented at the 75th annual meeting of the Federation of American Societies of Experimental Biology, Atlanta, GA, April 1991, FASEB J. 5(5):A1303.

22. R.S. Chapkin. Utilization of gammalinolenic acid by mouse peritoneal macrophages. Presented at the XIth Washington International Spring Symposium on Prostaglandins, Leukotrienes & Lipoxins '91, Washington D.C., May 1991.

23. J.M. Gunn and R.S. Chapkin. Determination of diacylglycerol molecular species in *ras*-transformed 3T3 cells. Presented at the Annual ASBMB/Biophysical Society Joint Meeting, February 9-13, 1992, FASEB J. 6(1):A370.

24. K.S. Ramos, C.H. Thurlow and R.S. Chapkin. Enhanced inositol phosphate metabolism in rat aortic smooth muscle cells (SMCs) by benzo [a] pyrene (BaP). Presented at the Annual Meeting of the Society of Toxicology, February 23-27, 1992. The Toxicologist 12:180.

25. R.S. Chapkin. Regulation of eicosanoid synthesis by dietary polyunsaturated fatty acids. Presented at the 83rd Annual American Oil Chemists' symposium on dietary lipid regulation of cell signaling process and gene expression, May 10-14, 1992. INFORM 3:520.

26. D.Y. Lee, R.S. Chapkin and J.R. Lupton. Dietary modulation of biomarkers of colon carcinogenesis: Interactive effect of different types of fiber and fat. Presented at the annual FASEB meeting, Anaheim, CA, April 1992, FASEB J. 6(5):A1494.

27. J. Gao, D.Y. Lee, J.R. Lupton and R.S. Chapkin. Effect of dietary fibers and fats on rat colon protein kinase C activity: Correlation to cell proliferation. Presented at the annual FASEB meeting, Anaheim, CA, April 1992, FASEB J. 6(5):A1395.

28. J.B. Carrick, R.S. Chapkin and J.N. Moore. Effect of dietary source of omega-3 fatty acids on phospholipid fatty acid composition, TNF and eicosanoid synthesis. Presented at the 15th Annual Conference on Shock, Point Clear, AL, June 7-10, 1992.

29. D.C. Gaudette, R.S. Chapkin and B.J. Holub. Differential regulation of polyphosphoinositide isomer formulation in U46619-stimulated human platelets. Presented at the 8th International Conference on Second Messengers and Phosphoproteins, Glasgow, Scotland, August 3-8, 1992.

30. K.H. Fowler, D.N. McMurray and R.S. Chapkin. Effects of dietary eicosapentaenoic and docosahexaenoic acid on mouse T-lymphocyte function and diglyceride mass. Presented at the Annual Graduate Research Symposium, Texas A&M University Health Science Center, September 14-15, 1992.

31. R.S. Chapkin and J.R. Lupton. Dietary fat-fiber interactions: Effect on colonic mediators of cell cytokinetics. Presented at the Annual American Institute for Cancer Research Conference, Washington D.C., October 29-30, 1992.

32. K.L. Fowler, R.S. Chapkin and D.N. McMurray. Effects of purified dietary n-3 ethyl esters on murine T-lymphocyte function. Presented at the Annual Experimental Biology Meeting, New Orleans, LA, March 28-April 1, 1993, FASEB J. 7(3):A72.

33. L.A. Davidson, J.R. Lupton and R.S. Chapkin. Presence and distribution of protein kinase C isoforms in rat colon: Implications for colon carcinogenesis. Presented at the Annual Experimental Biology Meeting, New Orleans, LA, March 28-April 1, 1993, FASEB J. 7(4):A715.

34. D.C. Gaudette, R.S. Chapkin, M.E. Turini and B.J. Holub. Differential regulation of polyphosphoinositide isomer formation in U46619-stimulated human platelets. Presented at the Canadian Federation for Biological Sciences Annual Meeting, June 1993.

35. Y. Jiang, W. Chang, L.A. Davidson, H.M. Aukema, J.R. Lupton and R.S. Chapkin. Dietary fibers and fat alter steady-state levels of PKC isozymes and cell proliferation in rat colon. Presented at the 37th Annual Colorectal Cancer Meeting, M.D. Anderson Cancer Center, November 4-7, 1993.

36. J.R. Lupton and R.S. Chapkin. Fat fiber interactions: Effect on colon physiology, cytokinetics and cancer. Presented at the 37th Annual Colorectal Cancer Meeting, M.D. Anderson Cancer Center, November 4-7, 1993.

37. H.M. Aukema, W.-C. Chang, L.A. Davidson, J.R. Lupton and R.S. Chapkin. Diet modulation of rat colonic cell proliferation and cAMP-dependent protein kinase. Presented at the Annual American Association for Cancer Research Meeting, San Francisco, CA, April 10-13, 1994.

38. J.R. Lupton, L.A. Davidson, Y.-H. Jiang, W.-C. Chang, H.M. Aukema and R.S. Chapkin. Dietary fiber alters steady-state levels of PKC isozymes in rat colon. Presented at the Experimental Biology Meeting, Anaheim, CA, April 24-28, 1994, FASEB J. 8:A152.

39. C.A. Jolly, D.N. McMurray and R.S. Chapkin. Effects on n-3 fatty acids on interleukin 2 dependent and independent splenocyte function. Presented at the Experimental Biology Meeting, Anaheim, CA, April 24-28, 1994, FASEB J. 8:A931.

40. J.B. Carrick, R.G. Schnellman, R.S. Chapkin and J.N. Moore. Alteration of arachidonic acid metabolism by thioglycollate elicitation. Presented at the Experimental Biology Meeting, Anaheim, CA, April 24-28, 1994, FASEB J. 8:A411.

41. T.J. Weber, Y.Y. Fan, R.S. Chapkin, L.A. Davidson and K.S. Ramos. The isoform-specific expression of PKCs during individual phases of the cell cycle in vascular smooth muscle cells (SMCs) is disrupted by TCDD. Presented at the Annual Society of Toxicology Meeting, March, 1995.

42. Y.H. Jiang, H.M. Aukema, L.A. Davidson, J.R. Lupton and R.S. Chapkin. Determination of distinct protein kinase C isozyme localization in rat colon by *in situ* reverse transcriptase-polymerase chain reaction. Presented at the 86th Annual Meeting of the American Association for Cancer Research, Toronto, Canada, March 18-22, 1995, Proceedings of the American Association for Cancer Research 35:103, 1994.

43. Y.H. Jiang*, J.R. Lupton and R.S. Chapkin. Modulation of intermediate biomarkers of colon cancer by dietary fat, fiber and carcinogen in rat colonocytes. Presented at the Annual Experimental Biology Meeting, Atlanta, GA, April 10-13, 1995, FASEB J. 9:A868. *Winner of the 1995 American Society for Nutritional Sciences (ASNS) Graduate Student Research Award.

44. Y.Y. Fan, K.S. Ramos and R.S. Chapkin. The mitogenic effect of macrophages upon vascular smooth muscle cells is down-regulated by dietary gamma-linolenic acid: Role of cyclooxygenase derived metabolites. Presented at the Annual Experimental Biology Meeting, Atlanta, GA, April 10-13, 1995, FASEB J. 9:A175.

45. J.S. Pickering, R.S. Chapkin and J.R. Lupton. Fat, fiber and carcinogen alter fatty acid composition of fecal diacylglycerols. Presented at the Annual Experimental Biology Meeting, Atlanta, GA, April 10-13, 1995, FASEB J. 9:A990.

46. C.A. Jolly*, D.N. McMurray and R.S. Chapkin. Dietary n-3 fatty acid down-regulation of lymphocyte proliferation is preceded by increase in ceramide mass. Presented at the Annual Experimental Biology Meeting, Atlanta, GA, April 10-13, 1995, FASEB J. 9:A733. *Winner of the 1995 American Society for Nutritional Sciences (ASNS) Graduate Student Research Award.

47. H.M. Aukema, J.R. Lupton and R.S. Chapkin. Diverse effects of butyrate on proliferation in a transgenic mouse colonic cell line. Presented at the Annual Experimental Biology Meeting, Atlanta, GA, April 10-13, 1995, FASEB J. 9:A728.

48. W.C. Chang*, Y.H. Jiang, R.S. Chapkin and J.R. Lupton. Predictive value of proliferation, differentiation and apoptosis as intermediate markers for colon tumorigenesis. Presented at the Annual Experimental Biology Meeting, Atlanta, GA, April 10-13, 1995, FASEB J. 9:A869. *Winner of the 1995 American Society for Nutritional Sciences (ASNS) Graduate Student Research Award.

49. J. Zhang, M.-Y. Hong, G. Wu, R.S. Chapkin and J.R. Lupton. Utilization of butyrate by colonocytes is altered during the tumorigenic process. Presented at the Annual Experimental Biology Meeting, Atlanta, GA, April 10-13, 1995, FASEB J. 9:A990.

50. Y.Y. Fan, K.S. Ramos and R.S. Chapkin. Impact of dietary gammalinolenic acid on macrophage-smooth muscle cell interaction: Down-regulation of vascular smooth muscle cell DNA synthesis. Presented at the 86th American Oil Chemists' Meeting, San Antonio, TX, May 10, 1995, Inform 6:520.

51. R.S. Chapkin, Y.H. Jiang, L.A. Davidson and J.R. Lupton. Dietary fats and fibers modulate colonic intracellular signal transduction: Relevance to colon cancer. Presented at the 86th American Oil Chemists' Meeting, San Antonio, TX, May 10, 1995, Inform 6:519.

52. W.-C.L. Chang, R.S. Chapkin and J.R. Lupton. Predictive value of proliferation, differentiation and apoptosis as intermediate biomarkers for colon cancer. Presented at the Annual American Institute for Cancer Research Meeting, Washington, D.C., August 31-September 1, 1995.

53. C.A. Jolly*, D.M. McMurray and R.S. Chapkin. Down-regulation of T-cell interleukin-2 production by dietary n-3 fatty acids is independent of interleukin-2 gene transcription. Presented at the Annual Experimental Biology Meeting, Washington, D.C., April 14-17, 1996, FASEB J. 10:A555. *Winner of the 1996 American Society for Nutritional Sciences (ASNS) Graduate Student Research Award.

54. Y.Y. Fan, K.S. Ramos and R.S. Chapkin. Dietary g-linolenic acid supplementation enhances macrophage-derived prostaglandin E_1: Implication in atherogenesis. Presented at the Annual Experimental Biology Meeting, Washington, D.C., April 14-17, 1996, FASEB J. 10:A477.

55. Y.H. Jiang, J.R. Lupton and R.S. Chapkin. Select dietary fats and fibers block carcinogen-induced post-transcriptional down-regulation of colonic protein kinase C. Presented at the Annual Experimental Biology Meeting, Washington, D.C., April 14-17, 1996, FASEB J. 10:494.

56. W.C. Chang, R.S. Chapkin and J.R. Lupton. Changes in apoptosis rather than cell proliferation best explain the effect of fat and fiber on colon carcinogenesis. Presented at the Annual Experimental Biology Meeting, Washington, D.C., April 14-17, 1996, FASEB J. 10:493.

57. J. Zhang, G. Wu, R.S. Chapkin and J.R. Lupton. Synthesis of colonic membrane phospholipids is altered during tumorigenesis and is affected by diet. Presented at the Annual Experimental Biology Meeting, Washington, D.C., April 14-17, 1996, FASEB J. 10:A493.

58. D. Zoran, R. Barhoumi, R.S. Burghardt, W.-C.L. Chang, R.S. Chapkin and J.R. Lupton. Diet and carcinogen alter luminal butyrate concentration and intracellular pH in colonocytes. Presented at the Annual Experimental Biology Meeting, Washington, D.C., April 14-17, 1996, FASEB J. 10:A523.

59. M.Y. Hong, W.-C.L. Chang, R.S. Chapkin and J.R. Lupton. Maintenance of the colonic epithelia is regulated by small changes in proliferation and apoptosis and is affected by fiber and carcinogen. Presented at the Annual Experimental Biology Meeting, Washington, D.C., April 14-17, 1996, FASEB J. 10:A523.

60. M. Kim, W.-C.L. Chang, W. Frolich, R.S. Chapkin and J.R. Lupton. Butter fat may protect against colon carcinogenesis through decreased cell proliferation mediated by changes in prostaglandin production. Presented at the Annual Experimental Biology Meeting, Washington, D.C., April 14-17, 1996, FASEB J. 10:A495.

61. K.G. Maciorowski, D.L. Zoran, N.D. Turner, J.R. Lupton, R.S. Chapkin, C.L. Shermer and S.C. Ricke. Dietary fiber and carcinogen alter fecal microflora, fecal short chain fatty acid concentrations, and luminal pH of rats. Presented at the Texas A&M Human Nutrition Conference, College Station, TX, February 14, 1997.

62. C.M. Aymond*, L.A. Davidson, J.R. Lupton and R.S. Chapkin. Detection of putative colon cancer biomarkers in exfoliated colonocytes. Presented at the Annual Experimental Biology Meeting, New Orleans, LA, April 6-9, 1997, FASEB J. 11:A567. *Winner of the 1997 American Society for Nutritional Sciences (ASNS) Graduate Student Research Award.

63. L.A. Davidson, Y.H. Jiang, J.R. Lupton and R.S. Chapkin. Fish oil ameliorates the increase in colonic ras expression in carcinogen-injected rats. Presented at the Annual Experimental Biology Meeting, New Orleans, LA, April 6-9, 1997, FASEB J. 11:A567.

64. W.-C.L. Chang, R.S. Chapkin and J.R. Lupton. Luminal butyrate concentration is positively associated with colonocyte differentiation and apoptosis and negatively associated with proliferation. Presented at the Annual Experimental Biology Meeting, New Orleans, LA, April 6-9, 1997, FASEB J. 11:A566.

65. Y.Y. Fan, K.S. Ramos and R.S. Chapkin. Combined dietary gamma-linolenic acid and n-3 polyunsaturated fatty acids retard atherosclerotic progression in apo E knock-out mice. Presented at the 5th International Conference on Eicosanoids and Other Bioactive Lipids in Cancer, Inflammation and Related Diseases, La Jolla, CA, September 18, 1997.

66. M.Y. Hong*, R.S. Chapkin, N.D. Turner, C.D. Galindo, R.J. Carroll and J.R. Lupton. Fish oil enhances targeted apoptosis of colonocytes within the first 12 hours of carcinogen exposure and results in lower levels of DNA damage compared to corn oil. Presented at the Annual Experimental Biology Meeting, San Francisco, CA, April 1, 1998, FASEB J. 12:A656. *Winner of the 1998 American Society for Nutritional Sciences (ASNS) Graduate Student Research Award.

67. W.C.L. Chang, N.D. Turner, L.A. Davidson, R.S. Chapkin and J.R. Lupton. Fish oil depresses the carcinogen-induced expression of cox-2 in rat colonic mucosa. Presented at the Annual Experimental Biology Meeting, San Francisco, CA, April 1, 1998, FASEB J. 12:A564.

68. L.A. Davidson, R.E. Brown, J.R. Lupton and R.S. Chapkin. Ameliorative effect of dietary fish oil on carcinogen induced over-expression of colonic protein kinase b_{II} in the rat. Presented at the Annual Experimental Biology Meeting, San Francisco, CA, April 1, 1998, FASEB J. 12:A564.

69. J. Zhang, G. Wu, R.S. Chapkin, K.G. Maciorowski and J.R. Lupton. Urea synthesis in rat colonocytes is affected by fiber and carcinogen. Presented at the Annual Experimental Biology Meeting, San Francisco, CA, April 1, 1998, FASEB J. 12:A657.

70. R.S. Chapkin and J.R. Lupton. Colonic cell proliferation and apoptosis in rodent species: Modulation by diet. Presented at the 8th Annual Research Conference of the American Institute for Cancer Research, Washington, D.C., September 3, 1998.

71. R.E. Brown, J.R. Lupton, J. Morris, N. Wang, R.J. Carroll, N.D. Turner, L.A. Davidson and R.S. Chapkin. Morphodensitometric analysis of protein kinase C b_{II} expression in rat colon: Relation to *in situ* cell proliferation and apoptosis. Presented at the Protein Kinase C and Cellular Function Symposium, American Society of Biochemistry and Molecular Biology, Lake Tahoe, CA, October 9-12, 1998.

72. J.R. Lupton, N.D. Turner, D.L. Zoran, W.C. Chang, M.Y. Hong, J. Zhang, G. Wu and R.S. Chapkin. Mechanisms by which wheat bran may protect against colon carcinogenesis: The role of butyrate. Presented at the 6th International Conference on Mechanisms of Antitumorigenesis and Anticarcinogenesis, Arcachon, France, October 25-29, 1998.

73. E.S. Dick*, L.A. Davidson, J.R. Lupton and R.S. Chapkin. Effect of docosahexaenoic acid on ras post-translational processing and localization in a transgenic mouse colonic cell line. Presented at the Annual Experimental Biology Meeting, Washington, D.C., April 17-21, 1999, FASEB J. 13:A584. *Winner of the 1999 American Society for Nutritional Sciences (ASNS) Graduate Student Research Award.

74. M.Y. Hong, R.S. Chapkin, R.J. Carroll, N. Wang, N.D. Turner, J.S. Morris, L.A. Davidson and J.R. Lupton. Fish oil is protective against colon tumorigenesis by two distinct mechanisms in a site specific manner. Presented at the Annual Experimental Biology Meeting, Washington, D.C., April 17-21, 1999, FASEB J. 13:A540.

75. R.S. Chapkin, Y.Y. Fan, J. Zhang, R. Barhoumi, R.C. Burghardt and J.R. Lupton. Cell proliferation, apoptosis and signaling pathways as biomarkers for colon carcinogenesis. Presented at the XXXVII European Congress of Toxicology, Oslo, Norway, June 27, 1999, Toxicology Letters, suppl. 1:15, W2-4.

76. R.S. Chapkin, Y.Y. Fan, J. Zhang, R. Barhoumi, R.C. Burghardt, L.A. Davidson, N.D. Turner and J.R. Lupton. Antagonism of CD95 (APO-1/Fas) signaling blocks butyrate induction of apoptosis in Young Adult Mouse Colonic (YAMC) cells. Presented at the Gastrointestinal Tract VIII: Signaling, Transport and Integration meeting, FASEB Summer Conference, Copper Mountain, CO, July 26, 1999.

77. L.W. Sumner, B.P. Wolf, D.H. Russell, E.S. Dick, L.A. Davidson, J.R. Lupton and R.S. Chapkin. Characterization of human ras protein by MALDI-TOF-MS. Presented at The American Society for Mass Spectrometry and Allied Topics Meeting, Dallas, TX. June 1999.

78. N.D. Turner, J. Zhang, L.A. Davidson, R.S. Chapkin, S. Safe and J.R. Lupton. Diindoylmethane reduces HT-29 colon cancer cell number by decreasing proliferation and increasing apoptosis. Presented at the Annual American Institute for Cancer Research Meeting, Washington, D.C., September 1, 1999.

79. A.D. Carney, N.D. Turner, R.S. Chapkin and J.R. Lupton. Dietary inositol hexaphosphate reduces aberrant crypt formation in the colon of azoxymethane-injected rats. Presented at the Annual American Institute for Cancer Research Meeting, Washington, D.C., September 1, 1999.

80. D.N. McMurray, C.A. Jolly and R.S. Chapkin. Effect of dietary fatty acids on T-cell activation and T-cell receptor (TcR) mediated signaling in a murine model. Presented at the NIH, Macronutrients and Infectious Diseases: Cellular and Molecular Immunomodulatory Mechanisms Meeting, September 16-17, 1999, Bethesda, MD.

81. R.S. Chapkin, J. Zhang, N.D. Turner, L.A. Davidson and J.R. Lupton. Oncogenic ras alters sensitivity of colonocytes to butyrate and docosahexaenoic acid-mediated growth arrest and apoptosis. Presented at the 91st American Association for Cancer Research, April 1-5, 2000, San Francisco, CA. Proc. American Association Cancer Research 41:342, 2000.

82. M.Y. Hong*, R.S. Chapkin, L.A. Davidson, N.D. Turner, J.S. Morris, N. Wang, R.J. Carroll and J.R. Lupton. Fish oil enhances targeted apoptosis during colon tumor initiation by down regulating Bcl-2. Presented at the Experimental Biology Meeting, April 15-18, 2000, San Diego, CA. FASEB J. 14:A169, 2000. *Winner of the 2000 American Association for Nutritional Sciences (ASNS) Graduate Student Award.

83. E.D. Collett, L.A. Davidson, Y.Y. Fan, J.R. Lupton and R.S. Chapkin. Docosahexaeneic acid inhibits oncogenic ras activation and signal transduction in colonocytes. Presented at the Experimental Biology Meeting, April 15-18, 2000, San Diego, CA. FASEB J. 14:A169, 2000.

84. N.D. Turner, A.D. Carney, L.A. Davidson, R.S. Chapkin and J.R. Lupton. Phytate reduces proliferation and increases apoptosis in rat colonocytes. Presented at the Experimental Biology Meeting, April 15-18, 2000, San Diego, CA. FASEB J. 14: A294, 2000.

85. R.S. Chapkin, D.N. McMurray and J.R. Lupton. n-3 PUFA: Too good to be true? Presented at the American Oil Chemists' Meeting, April 25, 2000, San Diego, CA.

86. R.S. Chapkin, Yang-Yi Fan and K.D. Ramos. Dietary GLA retards atherosclerotic progression. Presented at the American Oil Chemists' Meeting, April 25, 2000, San Diego, CA.

87. J.R. Lupton, N.D. Turner, W.C.L. Chang, M.Y. Hong, L.A. Davidson, C.A. Everett, L.M. Sanders, Y.Y. Fan and R.S. Chapkin. Fat/Fiber interactions and their effect on colon carcinogenesis. Presented at ISSFAL 2000, July, Japan.

88. N.D. Turner, R.S. Chapkin and J.R. Lupton. Cancer Chemoprevention potential for functional foods. Presented at the International Conference and Exhibition in Nutraceuticals and Functional Foods, September 13-17, 2000, Houston, TX.

89. J.L. Arrington, K.C, Switzer, Y.Y. Fan, J.S. Morris, D.N. McMurray and R.S. Chapkin. Dietary n-3 polyunsaturated fatty acids modulate purified T-cell subset activation. Presented at the Experimental Biology Annual Meeting, Orlando, FL March 31, 2001. Faseb J. 15(4):A645,2001

90. K.C.Switzer, J.L. Arrington, Y.Y. Fan, L.A. Davidson, D.N. McMurray and R.S. Chapkin. Dietary fish oil promotes Fas-mediated apoptosis in Th1 cells. Presented at the Experimental Biology Annual Meeting, Orlando, FL March 31, 2001. Faseb J. 15(4):A645, 2001.

91. Y.Y. Fan, M.Y. Hong, L.A. Davidson, L.M. Sanders, C.E. Henderson, N.D. Turner, R. Barhoumi, R.C. Burghardt, J.R. Lupton and R.S. Chapkin. Dietary lipid source alters fatty acid composition in mitochondrial membrane phospholipids and modulates mitochondrial function in rat colonocytes. Presented at the Experimental Biology Annual Meeting, Orlando, FL March 31, 2001. Faseb J. 15(4):A283, 2001.

92. L.M. Sanders, C.E. Henderson, M.Y. Hong, R. Barhoumi, R.C. Burghardt, C.M. Spinka, R.J. Carroll, L.K. Bancroft, N.D. Turner, R.S. Chapkin and J.R. Lupton. Dietary fish oil and pectin protect against oxidative DNA damage despite an increase in reactive oxygen species in rat small and large intestine epithelial cells. Presented at the Experimental Biology Annual Meeting, Orlando, FL March 31, 2001. Faseb J. 15(4):A282, 2001.

93. C.E. Henderson, L.M. Sanders, M.Y. Hong, S.S. Taddeo, R. Barhoumi, C.M. Spinka, N.D. Turner, R.J. Carroll, R.C. Burghardt, R.S. Chapkin and J.R. Lupton. Diet induced rat colonc reactive oxygen species production is age dependent. Presented at the Experimental Biology Annual Meeting, Orlando, FL. March 31, 2001. Faseb J. 15(4):A400, 2001.

94. M.Y. Hong, C.E. Henderson, L. M. Sanders, S. S. Taddeo, R. Barhoumi, Y.Y. Fan, L.A. Davidson, N.D. Turner, R.C. Burghardt, R.S. Chapkin, and J.R. Lupton. Dietary fish oil may protect against colon cancer by altering mitochondrial function thereby creating a permissive environment for butyrate-induced apoptosis. Presented at the Experimental Biology Annual Meeting, Orlando, FL March 31, 2001. Faseb J. 15(4):A61, 2001.

95. M.Y. Hong, Y.Y. Fan, N.D. Turner, L.A. Davidson, M.E. Murphy, R.J. Carroll, R.S. Chapkin and J.R. Lupton. Dietary fish oil changes mitochondrial cardiolipin fatty acid composition thereby altering mitochondrial function and facilitating butyrate-induced apoptosis. Presented at the 11th Annual American Institute for Cancer Research Conference, July 16-17, 2001, Washington, D.C. J.Nutr. 113:(11S)3147S, 2001.

96. J. Seo*, R. Barhoumi, L.A. Davidson, R.C. Burghardt, J.R. Lupton and R.S. Chapkin. DHA decreases plasma membrane localization of Ras in colonic epithelial cells. Faseb J. 16(4):A370, 2002. *Winner of the 2002 American Association for Nutritional Sciences (ASNS) Graduate Student Award.

97. K.C. Switzer*, D.N. McMurray and R.S. Chapkin. Dietary n-3 polyunsaturated fatty acids selectively promote activation-induced cell death in Th1 cells. Faseb J. 16(4):A986, 2002. *Winner of the 2002 American Association for Nutritional Sciences (ASNS) Graduate Student Award.

98. R.S. Chapkin, J.L. Arrington, T. Apanasovich, R.J. Carroll and D.N. McMurray. Dietary n-3 PUFA affect TcR-mediated activation of purified murine T cells and accessory cell function in co-cultures. Faseb J. 16(4):A984, 2002.

99. L.M. Sanders*, C.E. Henderson, M.Y. Hong, R. Barhoumi, R.C. Burghardt, C.M. Spinka, N. Wang, R.J. Carroll, N.D. Turner, R.S. Chapkin and J.R. Lupton. Dietary fish oil and pectin protect against oxidative DNA damage in rat intestinal epithelial cells due to heightened apoptosis induced by reactive oxygen species. Faseb J. 16(4):A371, 2002. *Winner of the 2002 American Association for Nutritional Sciences (ASNS) Graduate Student Award.

100. N. Popovic, N.D. Turner, L.A. Braby, R.S. Chapkin and J.R. Lupton. Combined effect of radiation and a chemical carcinogen on the formation of abherrant crypt foci in rat colon. Faseb J. 16(4): A889, 2002.

101. M.Y. Hong, L.K. Bancroft, N.D. Turner, R.S. Chapkin, C.M. Spinka, R.J. Carroll and J.R. Lupton. Dietary fish oil, compared to corn oil, decreased oxidative DNA damage at the base and middle region of the colonic crypt in dextran sodium sulfate (DSS)-treated rats. Faseb J. 16(4): A224, 2002.

102. C.A. Warren, N. Popovic, M.Y. Hong, R.M. Hokanson, S.S. Taddeo, M.E. Murphy, L.A. Davidson, R.S. Chapkin, J.R. Lupton and N.D. Turner. Quercetin decreases the number of high multiplicity aberrant crypt foci (ACF) but not the total number of ACF in rat colon. Faseb J. 16(4): A743, 2002.

103. C.E. Henderson, L.M. Sanders, M.Y. Hong, S.S. Taddeo, C.M. Spinka, N.D. Turner, R.J. Carroll, R.S. Chapkin and J.R. Lupton. Colonocyte DNA damage differs with diet but not age. Faseb J. 16(4): A988, 2002.

104. L.K. Bancroft, J.R. Lupton, S.S. Taddeo, L.A. Davidson, M.E. Murphy, R.J. Carroll and R.S. Chapkin. Fish oil protects against intestinal oxidative DNA damage. Faseb J. 16(4): A999, 2002.

105. L.K. Bancroft, R.S. Chapkin, L.A. Davidson, M.E. Murphy, R.J. Carroll and J.R. Lupton. Response to oxidative stress may not explain the differential cancer susceptibility of small and large intestine. Faseb J. 16(4): A1001, 2002.

106. R.S. Chapkin, K.C. Switzer, J.L. Arrington, L.H. Ly and D.N. McMurray. Nutritional Modulation of Immunity: Regulation of Th1/Th2 Responses. Presented at the 5th Congress of the International Society for the Study of Fatty Acids and Lipids, Montreal, Canada, May 7, 2002.

107. J.R. Lupton, N.D. Turner, N. Popovic, R.S. Chapkin, L.A. Braby and J. Ford. Nutritional countermeasures to radiation exposure. Congress Medizin and Mobilitat, Furstenfeldbruck, Germany, September 2002.

108. J.R. Lupton, N.D. Turner, N. Popovic, R.S. Chapkin, L.A. Brady, J.R. Ford and R.J. Carroll. Nutrition as a possible countermeasure to radiation exposure. Presented at the Bioastronautics Investigators' Workshop, Galveston, Texas, January 15, 2003.

109. M.Y. Hong, L.K. Bancroft, N.D. Turner, R.S. Chapkin, M.E. Murphy, R.J. Carroll and J.R. Lupton. Differential response to dextran sodium sulfate (DSS)-induced oxidative DNA damage in rat small (SI) and large intestine (LI). To be presented at the Experimental Biology Meeting, San Diego, CA., April 11-15, 2003.

110. M.Y. Hong, L.K. Bancroft, N.D. Turner, L.A. Davidson, R.S. Chapkin, M.E. Murphy, R.J. Carroll and J.R. Lupton. Dietary fish oil enhances targeted apoptosis response to dextran sodium sulfate (DSS)-induced oxidative DNA damage in the top part of the colonic crypt. Presented at the Experimental Biology Meeting, San Diego, CA., April 11-15, 2003.

111. C.A. Warren, J.R. Lupton, N. Popovic, M.Y. Hong, S.S. Taddeo, M.E. Murphy, R.S. Chapkin and N.D. Turner. The chemopreventive action of quercetin decreases the number of high multiplicity aberrant crypt foci (ACF), reduces proliferation, and increases apoptosis in rat colonocytes. Presented at the Experimental Biology Meeting, San Diego, CA., April 11-15, 2003.

112. A.H. Newton*, K.L. Covert, R. Barhoumi, N.D. Turner, L.M. Sanders, M.Y. Hong, S.S. Taddeo, C.M. Van Velson, M.E. Murphy, R.S. Chapkin and J.R. Lupton. Dietary fish oil + butyrate protect against colon cancer by increasing reactive oxygen species and decreasing mitochondrial membrane potential in the promotion stage of tumorigenesis. Presented at the Experimental Biology Meeting, San Diego, CA., April 11-15, 2003. *Winner of the 2003 American Association of Nutritional Sciences (ASNS) Graduate Student Award.

113. N. Popovic, N.D. Turner, L.A. Davidson, L.A. Braby, J.R. Ford, R.J. Carroll, R.S. Chapkin and J.R. Lupton. Dietary prevention of colon cancer induced by combined effect of carcinogen and radiation. Presented at the Experimental Biology Meeting, San Diego, CA., April 11-15, 2003.

114. K.L. Covert, A.H. Newton, N.D. Turner, L.M. Sanders, N. Popovic, C.M. Van Velson, S.S. Taddeo, M.Y. Hong, M.E. Murphy, R.S. Chapkin and J.R. Lupton. The combination of dietary fish oil and butyrate decreases high-multiplicity aberrant crypt foci in experimentally induced colon cancer. Presented at the Experimental Biology Meeting, San Diego, CA., April 11-15, 2003.

115. L.M. Sanders*, C.E. Henderson, M.Y. Hong, R. Barhoumi, R.C. Burghardt, M.E. Murphy, R.J. Carroll, N.D. Turner, R.S. Chapkin and J.R. Lupton. A diet of fish oil and pectin reduces antioxidant enzymes creating an environment permissive for ROS-induced apoptosis. Presented at the Experimental Biology Meeting, San Diego, CA., April 11-15, 2003. *Winner of the 2003 American Association of Nutritional Sciences (ASNS) Graduate Student Award.

116. M.Y. Hong, L.K. Bancroft, N.D. Turner, R.S. Chapkin, M.E. Murphy, R.J. Carroll and J.R. Lupton. Differential responses to oxidative DNA damage may explain the difference in cancer susceptibility between small (SI) and large intestine (LI). Presented at the Free Radicals: The Pros and Cons of Antioxidants Meeting, Bethesda, MD, June 26-27, 2003.

117. L.H. Ly, R. Smith, D.N. McMurray and R.S Chapkin. Immunosuppressive dietary n-3 polyunsaturated fatty acid enhances CD28 receptor surface expression. Presented at the Impact of Nutritional Status on Immune Function and Health Faseb Summer Research Conference, July 5, 2003 Saxtons River, Vermont.

118. K.C. Switzer, R. Smith, D.N. McMurray and R.S. Chapkin. Dietary n-3 polyunsaturated fatty acids alter the apoptotic response of Th1 polarized murine CD4+ T cells following reactivation. Presented at the Impact of Nutritional Status on Immune Function and Health Faseb Summer Research Conference, July 5, 2003 Saxtons River, Vermont.

119. D.W.L. Ma, E.S. Callaway, L.A. Davidson, J. Seo, Y.Y. Fan, J.R. Lupton and R.S. Chapkin. Diet induced perturbations in caveolae lipid composition alter protein localization in mouse colon. Presented at the American Association for Cancer Research Meeting, Washington, DC, July 11-14, 2003, AACR 44:200, 2003.

120. D.W.L. Ma, L.A. Davidson, O. Spiegelstein, J.R. Lupton, R.H. Finnell, and R.S. Chapkin. Genetic manipulation of folate transport: Implications for colon cancer. Presented at the American Association for Cancer Research Meeting, Washington, DC, July 11-14, 2003, AACR 44:1302, 2003.

121. Y.Y. Fan, T.E. Spencer and R.S. Chapkin. Activation of retinoid receptor alpha by docosahexaenoic acid in young adult mouse colonic cells. Presented at the American Association for Cancer Research Meeting, Washington, DC, July 11-14, 2003, AACR 44:1159, 2003.

122. J. Seo, R. Barhoumi, R.C. Burghardt, A. Choudhary, E.R. Dougherty, J.R. Lupton, and R.S. Chapkin. Docosahexaenoic acid differentially modulates plasma membrane localization of ras isoforms in colonic epithelial cells. Presented at the American Association for Cancer Research Meeting, Washington, DC, July 11-14, 2003, AACR 44:72, 2003.

123. G.D. Zhou, J.R. Lupton, N.D. Turner, R.S. Chapkin and K.C. Donnelly. Endogenous DNA adducts (I-compounds) in colon and duodenum of rats treated with azoxymethane. Presented at the American Association for Cancer Research Meeting, Washington, DC, July 11-14, 2003, AACR 44:661, 2003.

124. N.D. Turner, N. Popovic, S.S. Taddeo, L.M. Sanders, K.J. Paulhill, J. Mann, L.A. Braby, J.R. Ford, R.S. Chapkin, L.A. Davidson, Q. Zheng, R.J. Carroll and J.R. Lupton. High energy LET radiation as a risk modifier in colon carcinogenesis. Presented at the AACR Frontiers in Cancer Prevention meeting, Phoenix, AZ, October 26, 2003.

125. J. Seo,* R. Barhoumi, N. Wang, L.A. Davidson, R.C. Burghardt, J.R. Lupton and R.S. Chapkin. Docosahexaenoic acid selectively modulates intracellular trafficking and plasma membrance localization of lipidated proteins. Presented at the Keystone Symposia - Molecular Cell Biology of Lipid Domains - Vancouver, British Columbia, March 26-31, 2004. Winner of the Keystone Graduate Student Research Award.

126. D.W.L. Ma, J. Seo, L.A. Davidson, E.S. Callawey, Y-Y. Fan, J.R. Lupton and R.S. Chapkin. Dietary n-3 PUFA alter caveolae lipid composition and resident protein localization in mouse colon. Presented at the Keystone Symposia - Molecular Cell Biology of Lipid Domains - Vancouver, British Columbia, March 26-31, 2004.

127. K.C. Switzer, Y-Y. Fan, D.N. McMurray and R.S. Chapkin. Dietary n-3 polyunsaturated fatty acids (PUFA) promote activation-induced cell death (AICD) in Th1-polarized murine T cells. Presented at the 2004 Experimental Biology Meeting, Washington D.C., April 17, 2004.

128. L. Ly, R. Smith, R.S. Chapkin and D.N. McMurray. Immunosuppresive dietary n-3 polyunsaturated fatty acids enhance CTLA-4 receptor surface expression on $CD4^+$ murine T-cells. Presented at the 2004 Experimental Biology Meeting, Washington D.C., April 17, 2004.

129. P. Zhang, R.Smith, D.N. McMurray and R.S. Chapkin. Dietary fish oil does not affect proliferation or cytokine production in murine $CD4^+$ T cells polarized toward a Th2 phenotype in vitro. Presented at the 2004 Experimental Biology Meeting, Washington D.C., April 17, 2004.

130. Y.V. Ng, R. Barhoumi, R.B. Tjalkens, J.R. Lupton and R.S. Chapkin. Docosahexaenoic acid and butyrate synergistically enhance mitochondrial membrane lipid oxidation and the dissipation of membrane potential. Presented at the 2004 Experimental Biology Meeting, Washington D.C., April 17, 2004.

131. L.M. Sanders, C.E. Henderson, M.Y. Hong, R. Barhoumi, R.C. Burghardt, R.J. Carroll, N.D. Turner, R.S. Chapkin and J.R. Lupton. Dietary alteration of reactive oxygen species (ROS) and antioxidant enzyme activity in rat colonocytes is age-dependent. Presented at the 2004 Experimental Biology Meeting, Washington D.C., April 17, 2004.

132. A.H. Newton, N.D. Turner, M.Y. Hong, L.A. Davidson, L.M. Sanders, R.S. Chapkin, M.E. Murphy, R.J. Carroll and J.R. Lupton. Dietary fish oil and butyrate may protect against colon cancer by inducing mitochondrial-dependent apoptosis in the promotion stage of carcinogenesis. Presented at the 2004 Experimental Biology Meeting, Washington D.C., April 17, 2004.

133. J. Vanamala, T. Leonardi, M.E. Murphy, S.S. Taddeo, B.S. Patil, L.M. Pike, R.S. Chapkin, J.R. Lupton and N.D. Turner. Natural and irradiated grapefruit pulp and their functional compounds suppress aberrant crypt foci and colonocyte proliferation. Presented at the 2004 Experimental Biology Meeting, Washington D.C., April 17, 2004.

134. M.Y. Hong, N.D. Turner, S.S. Taddeo, M.E. Murphy, R.J. Carroll, R.S. Chapkin and J.R. Lupton. Influence of dietary lipid and butyrate on the coordination of proliferation, p27, differentiation and apoptosis in the same cell during the initiation stage of colon carcinogenesis. Presented at the 2004 Experimental Biology Meeting, Washington D.C., April 17, 2004.

135. M.Y. Hong, N.D. Turner, M.E. Murphy, R.J. Carroll, R.S. Chapkin and J.R. Lupton. Relationship among proliferation, p27, differentiation and apoptosis measured by colocalization in the same cell as a function of carcinogen administration. Presented at the 2004 Experimental Biology Meeting, Washington D.C., April 17, 2004.

136. J.C. Mann, N. Popovic, S.S. Taddeo, M.M. Murphy, R.S. Chapkin, N.D. Turner and J.R. Lupton. The effects of diet and ionizing radiation on AOM-induced colon carcinogenesis. Presented at the 2004 Experimental Biology Meeting, Washington D.C., April 17, 2004.

137. N.D. Turner, N. Popovic, M.Y. Hong, S.S. Taddeo, L.A. Davidson, L.A. Braby, J.R. Ford, Q. Zhang, D.V. Nguyen, R.J. Carroll, R.S. Chapkin and J.R. Lupton. Radiation enhances azoxymethane-induced colon cancer development. Presented at the 3rd International Workshop on Space Radiation Research and the 15th Annual NASA Space Radiation Health Investigators' Workshop, Port Jefferson, NY May 16, 2004.

138. N.D. Turner, C.A. Warren, K.J. Paulhill, T. Leonardi, J. Vanamala, R.S. Chapkin and J.R. Lupton. Chemoprevention in the rat azoxymethane model of colon cancer by bioactive compounds in fruits and vegetables. Presented at the American Association for Horticultural Science Meeting, Austin TX, June, 2004.

139. N.D. Turner, J. Vanamala, T. Leonardi, B.S. Patil, M.E. Murphy, N. Wang, L.M. Pike, R.S. Chapkin and J.R. Lupton. Grapefruit and its isolated bioactive compounds act as colon cancer chemoprotectants in rats. Presented at the American Chemical Society National Meeting, Philadelphia, PA, August 22, 2004.

140. D.R. Hill, D.W.L. Ma, J.R. Lupton, R.S. Chapkin and R.H. Finnell. Folate transport gene ablation in mice increases sensitivity to colon carcinogenesis. Presented at the Folic Acid, Vitamin B_{12} and One-Carbon Metabolism, FASEB Summer Research Conference, July 31-August 5, 2004, Snowmass, CO.

141. N.D. Turner, N. Popovic, J.C. Mann, W. Fu, L.A. Davidson, R.B. Isett, R.J. Carroll, L.A. Braby, J.R. Ford, R.S. Chapkin and J.R. Lupton. Simulated galactic cosmic radiation enhances colon cancer in the rat, which is mediated by changes in gene expression that are influenced by dietary intervention. Presented at the AACR Frontiers in Cancer Prevention Research Conference, October 16-20, 2004, Seattle, WA.

142. J.R. Lupton, L.M. Sanders, J.C. Mann, N. Popovic, A.A. Glagolenko, L.A. Davidson, L.A. Braby, J.R. Ford, R.J. Carroll, R.S. Chapkin, and N.D. Turner. 2005. Colon carcinogenesis in response to radiation and a chemical carcinogen: The role of diet as a countermeasure. Bioastronautics Investigators' Workshop. January 10-12, 2005, Galveston, TX.

143. N.D. Turner, L.A. Davidson, L.A. Braby, J.R. Ford, R.J. Carroll, N. Wang, R.S. Chapkin and J.R. Lupton. 2005. Global transcriptional profiling using fecal material as a non-invasive biomarker of colon carcinogensis. Bioastronautics Investigators' Workshop. January 10-12, 2005, Galveston, TX.

144. P. Zhang, R. Smith, D.N. McMurray and R.S. Chapkin. Dietary fish oil suppresses clonal expansion during antigen-stimulated murine Th1 differentiation. Presented at the Experimental Biology Meeting, April 2-5, 2005, San Diego, CA. Faseb J. 19, A1343, 2005.

145. J. Seo*, R. Barhoumi, J.R. Lupton and R.S. Chapkin. Docosahexaenoic acid-induced inhibition of plasma membrane targeting is reversible and selective to lipidated cytosolic proteins. Presented at the Experimental Biology Meeting, April 2-5, 2005, San Diego, CA. Winner of the 2005 American Society of Nutritional Sciences (ASNS) Graduate Student Award. Faseb J, 19, A1455, 2005.

146. M.Y. Hong, N.D. Turner, M.E. Murphy, R.J. Carroll, R.S. Chapkin and J.R. Lupton. Dietary fish oil may decrease colonic cell proliferation by upgrading p27Kip 1 level in actively proliferating cells. Presented at the Experimental Biology Meeting, April 2-5, 2005, San Diego, CA. Faseb J, 19, A1694, 2005.

147. L.M. Sanders, G. Wu, N.D. Turner, R.S. Chapkin and JR. Lupton. Dietary fat and fiber modulate the colonic redox environment during the initiation stage of radiation-enhanced colon carcinogenesis in rats. Presented at the Experimental Biology Meeting, April 2-5, 2005, San Diego, CA. Faseb J. 19, A776, 2005.

148. M.Y. Hong, N.D. Turner, M.E. Murphy, R.J. Carroll, R.S. Chapkin and J.R. Lupton. Dietary fish oil reduces N^7-deoxymethylguanine adducts by enhancing apoptosis at the initiation stage of carcinogenesis in the small (SI) and large intestine (LI). Presented at the Experimental Biology Meeting, April 2-5, 2005, San Diego, CA. Faseb J. 19, A80, 2005.

149. M.Y. Hong, N.D. Turner, R.J. Carroll, R.S. Chapkin and J.R. Lupton. Higher DNA adduct levels and lower apoptosis may exlain the higher cancer susceptibility in the distal colon compared to the rest of the gastrointestinal tract. Presented at the Experimental Biology Meeting, April 2-5, 2005, San Diego, CA. Faseb J. 19, A760, 2005.

150. J. Vanamala, T. Leonardi, M.E. Murphy, S.S. Taddeo, B.S. Patil, L.M. Pike, R.S. Chapkin, J.R. Lupton and N.D. Turner. Reduced iNOS and COX-2 levels are associated with enhanced apoptosis induced by grapefruit pulp and limonin in rat colonocytes. Presented at the Experimental Biology Meeting, April 2-5, 2005, San Diego, CA, Faseb J. 19, A775, 2005.

151. C.T. McFarland, Y.Y. Fan, R.S. Chapkin, S.S. Allen, H. Cho, L.H. Ly and D.N. McMurray. Dietary polyunsaturated fatty acids and the host immune response to Tuberculosis. Presented at the Tuberculosis: Integrating Host and Pathogen Biology (Keystone) Meeting, April 2005, British Columbia, Canada.

152. N.D. Turner, C.A. Warren, K.J. Paulhill, L.M. Sanders, M.Y. Hong, K.L. Covert, L.A. Davidson, R.S. Chapkin and J.R. Lupton, Fermentation products in colon health: mediators of cell kinetics and gene expression. Presented at the Conference on Gastrointestinal Function, April 2005, Chicago, IL.

153. R.S. Chapkin, Y. Ng, R. Barhoumi, R.B. Tjalkens, Y.Y. Fan, S. Kolar, N. Wang, and J.R. Lupton. The role of docosahexaenoic acid in mediating mitochondrial membrane lipid oxidation and apoptosis in colonocytes. Presented at the Eicosanoids & Other Bioactive Lipids in Cancer, Inflammation & Related Diseases Meeting, San Francisco, CA, September 12, 2005.

154. R.S. Chapkin, N. Wang, J.R. Lupton, and I.A. Prior. Docosahexaeneic acid alters the size and distribution of lipid rafts. Presented at the American Society for Cell Biology Meeting, San Francisco, CA, December 13, 2005.

155. W. Kim, P. Zhang, R. Smith, D.N. McMurray and R.S. Chapkin. Dietary fish oil alters accumulation of antigen-specific $CD4^+$ T-cells in the lymph nodes of recipient mice following adoptive transfer and immunization. Presented at Experimental Biology, April 2, 2006, San Francisco, CA.

156. S.S. Kolar, R. Barhoumi, J.R. Lupton and R.S. Chapkin chemoprotective nutrients modulate intracellular calcium compartmentalization and store-operated channel entry to induce colonocyte apoptosis. Presented at Experimental Biology, April 2, 2006, San Francisco, CA.

157. J. Vanamala, A. Glagolenko, R.J. Carroll, M.E. Murphy, S.S. Taddeo, R.S. Chapkin, N.D. Turner and J.R. Lupton. Fish oil and pectin enhance apoptosis in irradiated rat Colonocytes via suppression of PGE synthase-2 and Wnt pathway. Presented at Experimental Biology, April 2, 2006, San Francisco, CA.

158. M.Y. Hong, N.D. Turner, M.E. Murphy, R.J. Carroll, L.K. Bancroft, L.A. Davidson, R.S. Chapkin and J.R. Lupton. Dietary fish oil down-regulates pro-inflammatory gene expression in colonocytes. Presented at Experimental Biology, April 2, 2006, San Francisco, CA.

159. G.D. Zhou, M Richardson, J.R. Lupton, N.D. Turner, R.S. Chapkin, and K.C. Donnelly. Colonic cyclopurines induced by azoxymethane and irradiation are decreased by dietary fish oil. Presented at the 97th Annual American Association for Cancer Research Meeting, April, 2006, Washington D.C.

160. J. Vanamala, A. Glagolenko, R.J. Carroll, M.E. Murphy, S.S. Taddeo, R.S. Chapkin, N.D. Turner and J.R. Lupton. Combination of fish oil and pectin suppressed beta catenin nuclear translocation, an important molecular event in colon carcinogenesis. Presented at the American Institute for Cancer Research Annual Meeting, Washington, D.C., July, 13, 2006.

161. R.S. Chapkin, J.R. Lupton and D.N. McMurray. Fatty acids, anti-inflammatory compounds and colon cancer. Presented at the American Institute for Cancer Research Annual Meeting, Washington, D.C., July, 13, 2006.

162. J.R. Lupton, N.D. Turner, L. Braby, J. Ford, R. Carroll and R.S. Chapkin. A combination of omega-3 fatty acids and a butyrate-producing fiber mitigates colon cancer development. Presented at the International Astronautical Federation Meeting, Valenica, Spain, October 2, 2006.

163. S.S.N. Kolar, R. Barhoumi, E. Callaway, J.R. Lupton and R.S. Chapkin. Combination chemotherapy modulates mitochondrial calcium compartmentalization to induce colonocyte apoptosis. Presented at the American Association for Cancer Research, Frontiers in Cancer Prevention Research meeting, Boston, MA, November 12-15, 2006.

164. N.D. Turner, L.A. Davidson, M. Vannucci, Q. Mo, R.J. Carroll, R.S. Chapkin and J.R. Lupton. Differential expression of genes over time induced by radiation and diet in exfoliated rat colonocytes. Presented at the NASA Human Research Program Investigator's Workshop, February 11-14, 2007, Galveston, TX.

165. S.S.N. Kolar, R. Barhoumi, E. Callaway, J.R. Lupton and R.S. Chapkin. Docosahexaenoic acid and butyrate synergistically induce colonocyte apoptosis by enhancing mitochondrial Ca^{2+} accumulation. Presented at Experimental Biology, Washington D.C., April 28, 2007.

166. K.J. Paulhill, S.S. Taddeo, R.J. Carroll, R.S. Chapkin, J.R. Lupton and N.D. Turner. Quercetin does not significantly affect the protection of a fish oil diet in early colon carcinogenesis. Presented at Experimental Biology, Washington D.C., April 28, 2007.

167. J. Vanamala, A. Glagolenko, P. Yang, R.J. Carroll, M.E. Murphy, R.A. Newman, R.S. Chapkin, N.D. Turner and J.R. Lupton. A diet containing fish oil and pectin ameliorates radiation-enhanced colon carcinogenesis by suppression of PPARδ and PGE synthase-2 ($PGES_2$) and elevation of PGE_3. Presented at Experimental Biology, Washington D.C., April 28, 2007.

168. R.H. Finnell, B.A. Kamen, E.S. Callaway, L.A. Davidson and R.S. Chapkin. Use of novel genetic mouse models to investigate the health benefits of folate in colon cancer. Presented at the American Association for Cancer Research meeting, Los Angeles, CA, April 14-18, 2007.

169. D.N. McMurray and R.S. Chapkin. n-3 PUFA, T cell inflammation and colon cancer. Presented at the 2007 FASEB Summer Conference on "Nutritional immunology: Its role in health and disease, Tucson, AZ, July 28 – August 2, 2007.

170. Q. Jia*, R. Smith, B.R. Weeks, E. Callaway, L.A. Davidson, W. Kim, J.R. Lupton, D.N. McMurray and R.S. Chapkin. Reduced colitis-associated colon cancer in fat-1 (n-3 fatty acid desaturase) transgenic mice. Presented at the 2007 FASEB Summer Conference on "Nutritional immunology: Its role in health and disease, Tucson, AZ, July 28 – August 2, 2007. *Q. Jia is a FASEB travel award recipient.

171. W. Kim*, R. Smith, L. Zhou, N. Wang, B.S. Patil, G.K, Jayaprakasha, D.N. McMurray and R.S. Chapkin. Dietary curcumin and limonin suppress antigen-induced $CD4^+$ T-cell proliferation in an NF-kB independent manner. Presented at the 2007 FASEB Summer Conference on "Nutritional immunology: Its role in health and disease, Tucson, AZ, July 28 – August 2, 2007. Wooki Kim is a recipient of the American Society for Nutrition Predoctoral Fellowship from McNeil Nutritionals.

172. N.D. Turner, L.A. Davidson, M. Vannucci, Q. Mo, R.J. Carroll, R.S. Chapkin and J.R. Lupton. Radiation- and diet-induced differential expression of genes measured over time in exfoliated rat colonocytes. Presented at the 18th Annual NASA Radiation Investigators' Workshop, Rohnert Park, CA, July 13, 2007.

173. W. Kim, R. Smith, L. Zhou, N. Wang, B. Patil, D.N. McMurray , and R.S. Chapkin. Dietary limonin suppresses antigen-induced $CD4^+$ T-cell proliferation via down-regulation of NF-kB nuclear translocation. Presented at the 2nd International Symposium on the Human Health Effects of Fruits and Vegetables, Houston, TX, October 10, 2007.

174. N.D. Turner, K.J. Paulhill, C.A. Warren, R.J. Carroll, N. Wang, R.S. Chapkin and J.R. Lupton. Quercetin suppresses early colon carcinogenesis partly through inhibition of inflammatory mediators. Presented at the 2nd International Symposium on the Human Health Effects of Fruits and Vegetables, Houston, TX, October 10, 2007.

175. N.D. Turner, K.J. Paulhill, C.A. Warren, R.J. Carroll, N. Wang, R.S. Chapkin and J.R. Lupton. Quercetin suppresses COX-1, COX-2 and iNOS expression during early-stage colon carcinogenesis. To be presented at the annual American Institute for Cancer Research meeting, Washington, D.C., November, 2007.

176. N.D. Turner, T. Leonardi, J. Vanamala, L.A. Davidson, B.S. Patil, N. Wang, R.J. Carroll, R.S. Chapkin and J.R. Lupton. Apigenin and narigenin favorably modulate aberrant crypt foci development and colonic cell cytokinetics. To be presented at the AACR Frontiers in Cancer Prevention Meeting, Philadelphia, PA, November, 2007.

177. K.J. Paulhill, S.S. Taddeo, G. Wu, R.J. Carroll, R.S. Chapkin, J.R. Lupton and N.D. Turner. Quercetin-dependent induction of colonocyte apoptosis depends on the dietary lipid source. To be presented at the AACR Frontiers in Cancer Prevention Meeting, Philadelphia, PA, November, 2007.

178. Y.M. Cho, H.M. Kim, N.D. Turner, S.S. Taddeo, L.A. Davidson, N. Wang, M. Vannucci, R.S. Chapkin, R.J. Carroll and J.R. Lupton. Monitoring dietary countermeasure effectiveness with colon gene expression profiles using a non-invasive technology. To be presented at the NASA Human Research Program Investigators' Workshop, League City, Texas, February 4, 2008.

179. N.D. Turner, L.M. Sanders, G. Wu, L.A. Davidson, L.A. Braby, J.R. Ford, R.J. Carroll, R.S. Chapkin and J.R. Lupton Dietary mitigation of the oxidative damage resulting from radiation exposure. Presented at the 79th Aerospace Medical Association meeting, May 11, 2008 (Aviation Space Environ. Med 79:215-216).

180. *W. Kim, Y.Y. Fan, R. Barhoumi, D.N. McMurray and R.S. Chapkin. Genetically-derived n-3 polyunsaturated fatty acids promote the formation of lipid rafts at the immunological synapse: a site of T-cell activation. Presented at Experimental Biology, 2008, San Diego, CA. *Winner of the 2008 American Society of Nutritional Sciences (ASNS) Graduate Student Award.

181. *Q. Jia, B.R. Weeks, E.S. Callaway, L.A. Davidson, Y.Y. Fan, L. Zhou, J.R. Lupton, R.S. Chapkin and D.N. McMurray. Dietary lipids and curcumin interact to affect mortality of DSS treated mice by modulating colonic epithelial injury. Presented at Experimental Biology, 2008, San Diego, CA. *Winner of the 2008 American Society of Nutritional Sciences (ASNS) Graduate Student Award.

182. Y. Cho, J.G. Martinez, N.D. Turner, S.S. Taddeo, L.A. Davidson, N. Wang, M. Vannucci, R.J. Carroll, R.S. Chapkin and J.R. Lupton Fish oil and pectin may suppress colon carcinogenesis via inhibition of MAPK and TGFb pathways. Presented at Experimental Biology, 2008, San Diego, CA.

183. H. Kim, N.D. Turner, S.S. Taddeo, L.A. Davidson, N. Wang, M. Vannucci, R.S. Chapkin, R.J. Carroll and J.R. Lupton. A fish oil/pectin diet beneficially altered gene profiles during radiation-enhanced colon carcinogenesis. Presented at Experimental Biology, 2008, San Diego, CA.

184. *K.J. Paulhill, S.S. Taddeo, G. Wu, R.J. Carroll, R.S. Chapkin, J.R. Lupton and N.D. Turner. Endogenous antioxidant enzyme activities and colonocyte balance are altered by dietary lipids and quercetin. Presented at Experimental Biology, 2008, San Diego, CA. *Winner of the 2008 American Society of Nutritional Sciences (ASNS) Graduate Student Award.

185. N.D. Turner, L. Sanders, G. Wu, L.A. Davidson, J. Ford, L. Braby, R. Carroll, R.S. Chapkin and J. Lupton. Relationship between oxidative damage and colon carcinogenesis in irradiated rats: Influence of dietary countermeasures. Presented at the 37th Committee on Space Research Meeting, Montreal, Canada, July 13, 2008.

186. R.S. Chapkin, L.A. Davidson, N. Colburn, E. Lanza, T. Hartman, J.R. Lupton, E. Dougherty, C. Zhao and I. Ivanov. Non-invasive detection of candidate molecular biomarkers in patients at high risk for colorectal adenoma recurrence. Presented at the NCI Translational Science Meeting, Bethesda, MD, November 7-9, 2008.

187. M.R Young, M.I. Kang, C. Henrich, P. Brown, G. Bobe, R. Mento-Marcel, T. Hartman, R. Chapkin, E. Lanza, J. Milner, Y. Kim and N.H. Colburn. Discovery and validation of molecular targets, biomarkers and non-toxic interventions for cancer prevention. Presented at the NCI Translational Science Meeting, Bethesda, MD, November 7-9, 2008.

188. C. Zhao, I. Ivanov, E.R. Dougherty, T.J. Hartman, E. Lanza, N.H. Colburn, J.R. Lupton, L.A. Davidson and R.S. Chapkin. Ranked molecular biomarkers for patients at high risk for colorectal adenoma recurrence. Presented at the MidSouth Computational Biology and Bioinformatics Society (MCBIOS) meeting, Starkville, Mississippi, February 20, 2009.

189. *R. Yog, R. Barhoumi, D.N. McMurray and R.S. Chapkin. n-3 Polyunsaturated fatty acids suppress T-cell mitochondrial translocation to the immunological synapse. Presented at the Annual Experimental Biology Meeting, New Orleans, LA, April, 2009. *Winner of the 2009 American Society of Nutritional Sciences (ASN) Graduate Student Award.

190. K.J. Paulhill, S.S. Taddeo, L.A. Davidson, R.J. Carroll, R.S. Chapkin, J.R. Lupton and N.D. Turner. Dietary lipid source alters quercetin effects on antioxidant enzyme/phase I and II gene expression in rat colon. Presented at the Annual Experimental Biology Meeting, New Orleans, LA, April, 2009.

191. W. Kim, Y.Y. Fan, R. Smith, B. Patil, K. Jayaprakasha, D.N. McMurray and R.S. Chapkin. Dietary curcumin and limonin suppress murine $CD4^+$ T-cell activation. Presented at the Annual Experimental Biology Meeting, New Orleans, LA, April, 2009.

192. H. Kim, N.D. Turner, S.S. Taddeo, L.A. Davidson, N. Wang, M. Vannucci, R.S. Chapkin, R. J. Carroll and J.R. Lupton. A fish oil/pectin diet suppresses radiation-enhanced colon carcinogenesis via down-regulation of the beta-catenin signaling pathway. Presented at the Annual Experimental Biology Meeting, New Orleans, LA, April, 2009.

193. Q. Jia, B.R. Weeks, J.S. Goldsby, J.R. Lupton, R.S. Chapkin and D.N. McMurray. Dietary lipids and curcumin interact to affect gene expression in a mouse model of DSS induced chronic colitis. Presented at the Annual Experimental Biology Meeting, New Orleans, LA, April, 2009.

194. Y. Cho, N.D. Turner, S.S. Taddeo, L.A. Davidson, N. Wang, M. Vannucci, R. J. Carroll, R.S. Chapkin and J.R. Lupton. Chemoprotective fish oil/pectin diets temporarily alter gene expression profiles in exfoliated colonocytes. Presented at the Annual Experimental Biology Meeting, New Orleans, LA, April, 2009.

195. L.A. Davidson, C. Zhao, I. Ivanov, E.R. Dougherty, T.J. Hartman, E. Lanza, N.H. Colburn, J.R. Lupton and R.S. Chapkin. Non-invasive identification of ranked molecular markers for patients at high risk of colorectal adenoma recurrence. Presented at the Frontiers of Cancer Research Conference, Houston, TX, March 26-27, 2009.

196. Y.Y. Fan, E.S. Callaway, Q. Ran, J.R. Lupton and R.S. Chapkin. The apoptotic effects of n-3 fatty acids are enhanced in oxidatively stressed transgenic mouse models. Presented at the Frontiers of Cancer Research Conference, Houston, TX, March 26-27, 2009.

197. R.S. Chapkin, L.A. Davidson, N. Wang, I. Ivanov, J. Goldsby and J.R. Lupton. Identification of actively translated mRNA transcripts in a rat model of early stage colon carcinogenesis. Presented at the Frontiers of Cancer Research Conference, Houston, TX, March 26-27, 2009.

198. N.D. Turner, K.J. Paulhill, S.S. Taddeo, G. Wu, R.J. Carroll, R.S. Chapkin and J.R. Lupton. Dietary lipids and Quercetin alter endogenous antioxidant enzyme activities and colonocyte redox balance. Presented at the Frontiers of Cancer Research Conference, Houston, TX, March 26-27, 2009.

199. N.D. Turner, S.S. Taddeo, L.A. Davidson, R.S. Chapkin, R.J. Carroll, J.R. Ford, L.A. Braby and J.R. Lupton. Radiation-induced gene expression changes in colonic mucosa at initiation through tumor development. To be presented at the Frontiers of Cancer Research Conference, Houston, TX, March 26-27, 2009.

200. H.F. Turk, S.S. Kolar, Y.Y. Fan, C.A. Cozby, J.R. Lupton and R. S. Chapkin. Linoleic acid and butyrate synergize to increase bcl-2 levels in colonocytes. Presented at the Frontiers of Cancer Research Conference, Houston, TX, March 26-27, 2009.

201. M.S. Shah, L.A. Davidson, I. Ivanov, N. Wang, J.R. Lupton and R.S. Chapkin. Establishment of a cell culture model to examine dietary regulation of microRNA expression in the colon. Presented at the Keystone Symposia on "MicroRNA and Cancer", Breckenridge, CO, June 10-15, 2009.

202. Q. Jia, W. Kim, R. Alaniz, D.N. McMurray and R.S. Chapkin. n-3 PUFA favorably modulate T cell polarization during DSS induced experimental colitis. Presented at the VFIC annual meeting, Austin, TX, August 23, 2009.

203. W. Kim, R. Barhoumi, D.N. McMurray and R.S. Chapkin. n-3 polyunsaturated fatty acids enhance immunosuppressive effects of botanicals in part by suppressing the localization and activation of signaling proteins at the immunologic synapse in murine $CD4^+$ T cells. Presented at the VFIC annual meeting, Austin, TX, August 23, 2009.

204. C.M. Ferguson, K. Pokusaeva, I. Zorych, L.N. Thomas, S.S. Taddeo, E.S. Callaway, Y.Y. Fan, N.D. Turner, R.S. Chapkin, J.R. Lupton, and J.M. Sturino. Resistant Starch Differentially Stimulates the Proliferation of Native Gastrointestinal Bifidobacteria. Presented at the United States National Academy of Sciences Sackler Symposium on Microbes and Health (Irvine, CA), October, 2009.

205. S.M. Donovan, L.A. Davidson[2], C. Zhao, I. Ivanov, , J. S. Goldsby, J.R. Lupton[2], R.A. Mathai, M. H. Monaco, D. Rai, M. Russell, E.R. Dougherty and R.S. Chapkin. Non-invasive stool-based detection of newborn infant gastrointestinal development using gene expression profiles derived from exfoliated epithelial cells. Presented at the Annual Experimental Biology Meeting, Anaheim, CA, April, 2010.

206. N.D. Turner, S.S. Taddeo, E.S. Callaway, Y.Y. Fan, L.A. Davidson, L.N. Thomas, C.M. Ferguson, J.M. Sturino, R.S. Chapkin, and J.R. Lupton. Differential activation of NF-kB in colonic mucosa of DSS-challenged rats consuming fermentable fiber sources. Presented at the Annual Experimental Biology Meeting, Anaheim, CA, April, 2010.

207. Y.Y. Fan, S. Toyokuni, E.S. Callaway, Q. Ran, J.R. Lupton, and R.S. Chapkin. n-3 polyunsaturated fatty acids promote apoptosis in oxidatively stressed transgenic mouse models. Presented at the Annual American Association for Cancer Research Meeting, Washington, D.C., April, 2010.

208. R. Alaniz, T. Shepherd, K. Ryden, Q. Jia, L. Davidson and R.S. Chapkin. Humanized mouse model of inflammatory bowel disease and microbial immunity. Presented at the 5th International Meeting on Inflammatory Bowel Diseases, Capri, Italy, April 8-10, 2010.

209. H.F. Turk, J.R. Lupton, and R.S. Chapkin. Docosahexaenoic acid alters the spatio-temporal segregation and activation of the EGF receptor. Presented at the Annual American Association for Cancer Research Meeting, Washington, D.C., April 11, 2010.

210. M. Saldua, C. Olsovsky, E. Callaway, R. Chapkin and K. Maitland. Extended frames of chronic inflammation in the mouse colon using a rapid stage scanning confocal fluorescence microscope. Presented at the Biomedical Engineering Society Conference, Austin, TX, October 6-9, 2010.

211. S.M. Donovan, L.A. Davidson, C. Zhao, I. Ivanov, J.S. Goldsby, J.R. Lupton, R.A. Mathai, M.H. Monaco, D. Rai, M. Russell, E.R. Dougherty and R.S. Chapkin. Non-invasive assessment of intestinal gene expression profile in breast- and formula-fed human infants using exfoliated cells collected from stool. To be presented at the 7th International Symposium: Milk genomics & Human Health Meeting, University of California-Davis, October 20-22, 2010.

212. S.M. Donovan, L.A. Davidson, C. Zhao, I. Ivanov, J.S. Goldsby, J.R. Lupton, R.A. Mathai, M.H. Monaco, D. Rai, M. Russell, E.R. Dougherty and R.S. Chapkin. Non-invasive assessment of the intestinal transcriptome of breast and formula-fed infants. To be presented at the 15th International ISRHML Conference, Lima, Peru, October 8-12, 2010.

213. C. Zhao, I. Ivanov, M. Shah, L.A. Davidson, R.S. Chapkin and E.R. Dougherty. Conditioning-based model for the regulatory activities of microRNAs in specific dietary contexts. Presented at the 9th IEEE International Workshop on Genomic Signal Processing and Statistics (GENSIPS), Cold Spring Harbor Laboratory, November 10-12, 2010, DOI:10.1109/GENSIPS.2010.5719690.

214. R.S. Chapkin, M. Shah, I. Ivanov, J.R. Lupton and L.A. Davidson. Identification of dietary modifiers of crypt stem cells – the cells of origin of intestinal cancer. Presented at the Cancer Prevention and Research Institute of Texas (CPRIT) Conference, November 17-19, 2011, Austin, Texas.

215. Y. Cho, N.D. Turner, L.A. Davidson, R.S. Chapkin and J.R. Lupton. A chemoprotective fish oil/pectin diet regulates the expression of bcl-2 oncogene by altering CpG island methylator phenotype (CIMP) in colon cancer. Presented at the Annual Experimental Biology Meeting, Washington, D.C., April, 2011.

216. *H.M. Turk, R. Barhoumi, J.R. Lupton and R.S. Chapkin. A novel role for n-3 polyunsaturated fatty acids in inhibition of EGFR signal transduction. Presented at the Annual Experimental Biology Meeting, Washington, D.C., April 11, 2011. *Winner of the 2011 American Society of Nutritional Sciences (ASN) Graduate Student Award.

217. M.S. Shah, S.L. Schwartz, C. Zhao, L.A. Davidson, B. Zhou, J.R. Lupton and R.S. Chapkin. Integrated microRNA and mRNA expression profiling in a rat colon carcinogenesis model: Effect of a chemoprotective diet. Presented at the 102nd American Association for Cancer Research annual meeting, Orlando, FL, April 2-6, 2011.

218. S.L. Schwartz, I. Friedberg, I.V. Ivanov, L.A. Davidson, J.S. Goldsby, D.B. Dahl, E.R. Dougherty, D. Herman, M. Wang, S.M. Donovan and R.S. Chapkin. Breast milk and infant formula: Prediction, correlation, and classification within the joint gut transcriptome and microbiota. Presented at the Nature "Microbiota and mucosal immunology: the interface in health and disease" meeting, San Francisco, CA, April 14-16, 2011.

219. J.M. Monk, Q. Jia, Callaway, E.S., Weeks, B., Alaniz, R.C. McMurray, D.N. and Chapkin, R.S. n-3 PUFA decrease Th17 polarization in the colonic mucosa during chronic DSS-induced colitis. Presented at the Nature "Microbiota and mucosal immunology: the interface in health and disease" meeting, San Francisco, CA, April 14-16, 2011.

220. S.M. Donovan, M. Wang, S.L. Schwartz, I.V. Ivanov, L.A. Davidson, J.S. Goldsby, D.B. Dahl, E.R. Dougherty, I. Friedberg, D. Herman and R.S. Chapkin. Transcriptome of the Human Infant Intestinal Ecosystem. Presented at The first International Conference on the Glycobiology of Human Milk Oligosaccharides Copenhagen, Denmark May 16 & 17, 2011.

221. J.M. Monk, Q. Jia, Callaway, E.S., Weeks, B., Alaniz, R.C. McMurray, D.N. and Chapkin, R.S. Colonic mucosal Th17 cell polarization is favourably modulated by n-3 PUFA during chronic DSS-induced colitis. Presented at the Canadian Nutrition Society annual meeting, Guelph, Ontario, Canada, June 2-4, 2011.

222. S.L. Schwartz, I. Friedberg, I.V. Ivanov, L.A. Davidson, J.S. Goldsby, D.B. Dahl, E.R. Dougherty, D. Herman, M. Wang, S. M. Donovan and R.S. Chapkin. The human gut ecosystem: Gut microbiome and host transcriptome in breast-fed vs. formula-fed infants. Presented at the International Conference on Intelligent Systems for Molecular Biology and 10th European Conference on Computational Biology, Vienna, Austria, July, 12, 2011.

223. S.M. Donovan, S.L. Schwartz, I.V. Ivanov, L.A. Davidson, J.S. Goldsby, D.B. Dahl, E.R. Dougherty, I. Friedberg, D. Herman, M. Wang and R.S. Chapkin. Host-microbe interactions in neonatal intestinal development: Role of early nutrition. Presented at the Society of Ingestive Behavior (SSIB) meeting, Clearwater, FL, July 12, 2011.

224. N.H. Colburn, G. Bobe, R. Mentor-Marcel, T. Hartman, R.S. Chapkin, E. Lanza, J. Milner, Y. Kim, A. Cross and M.R. Young. Biomarkers of response to dietary interventions for colon cancer prevention. Presented at the National Cancer Institute Translates meeting, Washington, D.C., July 28, 2011.

225. T.Y. Hou, J.M. Monk, Y.YFan, Rola Barhoumi, Y. Chen, G.M. Rivera, D.N. McMurray, and R.S. Chapkin. n-3 polyunsaturated fatty acids suppress phosphatidylinositol-(4,5)-bisphosphate dependent actin remodeling during $CD4^+$ T cell activation. Presented at the FASEB Summer conference on "Nutritional Immunology: Role in Health and Disease, Carefree, AZ, July 10-15, 2011.

226. J.M. Monk, Q. Jia, E.S. Callaway, B. Weeks, R.C. Alaniz, D.N McMurray and R.S. Chapkin. n-3 PUFA decrease the proportion of Th17 cells in the inflamed colonic mucosa by affecting differentiation, function and trafficking during chronic DSS-induced colitis. Presented at the FASEB Summer conference on "Nutritional Immunology: Role in Health and Disease, Carefree, AZ, July 10-15, 2011.

227. M.R. Young, G. Bobe, R. Mentor-Marcel, T. Hartman, R.S. Chapkin, E. Lanza, J. Milner, Y. Kim, A. Cross and N.H. Colburn. Biomarkers of response to dietary interventions for colon cancer prevention. Presented at the American Institute for Cancer Research Conference, Washington, D.C., November 3-4, 2011.

228. L.A. Davidson, E.S. Callaway, J.S. Goldsby and R.S. Chapkin. The intestinal stem cell signature is altered by wounding and dietary modifiers. Presented at the CPRIT annual conference, Austin, TX, November 15-17, 2011.

229. C. Zheng, S. Schwartz, R.S. Chapkin, R.J. Carroll and I. Ivanov. Integrated data analysis of host-metabiome interactions. Presented at the KAUST Research Poster Competition for Undergraduates, Saudi Arabia, January 14-29, 2012.

230. *H.F. Turk and R.S. Chapkin. DHA alters EGFR spatiotemporal dynamics to suppress signal transduction. Presented at the Annual Experimental Biology Meeting, San Diego, CA, April 21-25, 2011. *Winner of the 2012 American Society of Nutritional Sciences (ASN) Graduate Student Award.

231. C. Zheng, S. Schwartz, R.S. Chapkin, R.J. Carroll and I. Ivanov. Feature selection for high-dimensional integrated data. Presented at the SIAM International Conference on Data Mining, Anaheim, CA, April 26-28, 2012.

232. J.M. Monk, T.Y. Hou, H.F. Turk, E.C. Callaway, C. Wu, D.N. McMurray and R.S. Chapkin. Dietary polyunsaturated fatty acids alter the Th17 cell-mediated pathogenesis of inflammatory bowel disease in obese mice. Presented at the Canadian Nutrition Society Annual Meeting, Vancouver, British Columbia, May 23-26, 2012.

233. T.Y. Hou, J.M. Monk, Y.Y. Fan, R. Barhoumi, Y.Q. Chen, G.M. Rivera, D.N. McMurray and R.S. Chapkin. n-3 polyunsaturated fatty acids suppress phosphatidylinositol-4,5-bisphosphate dependent actin remodeling during $CD4^+$ T cell activation. Presented at the 10th Congress of the International Society for the Study of Fatty Acids & Lipids (ISSFAL), Vancouver, Canada, May 26-30, 2012.

234. H.M. Turk, R. Barhoumi and R.S. Chapkin. Docosahexaenoic acid alters EGFR localization and inhibits signal transduction. Presented at the 10th Congress of the International Society for the Study of Fatty Acids & Lipids (ISSFAL), Vancouver, Canada, May 26-30, 2012.

235. J.M. Monk, Q. Jia, H.F. Turk, E.S. Callaway, B. Weeks, R.C. Alaniz, D.N. McMurray and R.S. Chapkin. n-3 polyunsaturated fatty acids antagonize Th17 cell biology during experimental colitis. Presented at the 10th Congress of the International Society for the Study of Fatty Acids & Lipids (ISSFAL), Vancouver, Canada, May 26-30, 2012.

236. I. Friedberg, S. Schwartz, I.V. Ivanov, L.A. Davidson, J.S. Goldsby, D.B. Dahl, D. Herman, M. Wang, S.M. Donovan and R.S. Chapkin. A metagenomic study of diet-dependent interaction between gut microflora and host in infants. Presented at the International Society for Computational Biology (ISMB) Meeting, Long Beach CA, July 15-17, 2012.

237. Y.Y. Fan, J. M. Monk, T.Y. Hou, E. Callway[1], L. Vincent, B. Weeks, P. Yang and R.S. Chapkin. Characterization of an arachidonic acid-deficient (*Fads1* knockout) mouse as a model for identifying new drug targets upstream of COX-2. Presented at the Annual Cancer Prevention and Research Institute of Texas (CPRIT) meeting, Austin, TX, October 24, 2012.

238. K. Triff, K. Konganti, B. Zhou, I. Ivanov and R.S. Chapkin. A genome wide analysis of the rat colon reveals site-specific differences in histone modifications and proto-oncogene expression. Presented at the Keystone – Nutrition, Epigenetics and Human Disease (B5) Meeting, Santa Fe, NM, February 19-24, 2013.

239. M. Wang, M. Li, R.S. Chapkin, I. Ivanov and S.M. Donovan. Fecal microbiome and metabolites differ between breast and formula-fed human infants. Presented at the Experimental Biology Meeting, Boston, MA, April 20-24, 2013.

240. M.S. Shah, L.A. Davidson and R.S. Chapkin. Identification of miR-26b and miR-203 gene targets in colon cancer cells. Presented at the Experimental Biology Meeting, Boston, MA, April 20-24, 2013.

241. M. Wang, M. Li, C.B. Lebrilla, R.S. Chapkin, I. Ivanov and S.M. Donovan. Gut microbota composition of breast-fed infants differs from formula-fed and is correlated with human milk oligosaccharides consumed. Presented at the European Society for Pediatric Gastroenterology Hepatology Meeting, London, England, May 8-11, 2013.

242. M.S. Shah, E. Kim, L.A. Davidson, E. Kim, J. Knight, R. Zoh, J. Goldsby, E. Callaway, I. Ivanov and R.S. Chapkin. Modulation of colonic stem cell microRNA expression by a chemoprotective diet. Presented at the ISSCR (International Society for Stem Cell Research) conference, Boston, MA, June 12-15, 2013.

243. R. Zoh, B. Mallick, R.J. Carroll, J.W. Lampe, M.A. Hullar, R.S. Chapkin and I. Ivanov. Probabilistic correlation analysis of the metagenome and host transcriptome: A tale of two non-normal data sets. Presented at the NIH Human Microbiome Science: Vision for the Future Meeting, Bethesda, MD, July 24-26, 2013.

244. S.M. Steelman, D.M. Hood, Y.Y. Fan, R.S. Chapkin, B.P. Chowdhary. Fish oil is a modulator of neutrophil function in chronic laminitis. Presented at the International Laminitis Conference, West Palm Beach, FL, November, 2013.

245. M.J. Allen, J.M. Monk, Y.Y. Fan, T. Hou, R. Barhoumi, D.N. McMurray and R.S. Chapkin. Modification of membrane composition decreases Th17 cell proliferation via the IL-6 signaling pathway. Presented at the FASEB Research Conference on Protein Lipidation, Signaling, and Membrane Domains, Saxton River, Vermont, July 14-19, 2013.

246. T.Y. Hou, R. Barhoumi, G.M. Rivera, D.N. McMurray and R.S. Chapkin. n-3 polyunsaturated fatty acids modulate lipid bilayer properties in primary mouse $CD4^+$ T cells. Presented at the FASEB Research Conference on Protein Lipidation, Signaling, and Membrane Domains, Saxton River, Vermont, July 14-19, 2013.

247. N.R. Fuentes and R.S. Chapkin. Determining the effects of lipophilic natural compounds on Ras activation using intramolecular FRET biosensors. Presented at the Texas A&M University System 11^{th} Annual Pathways Student Research Symposium, Kingsville, TX, November 8, 2013.

248. V. DeClercq, J.M. Monk, Y.Y. Fan, D.N. McMurray and R.S. Chapkin. Dietary chemoprevention in obesity-related colorectal cancer. Presented at the Energy Balance in Cancer Prevention and Survivorship Meeting, Duncan Family Institute, MD Anderson Cancer Center, February 12, 2014.

249. E.J. Kim, L.A. Davidson, B.S. Patil, G.K. Jayaprakasha, E.S. Callaway, N.D. Turner and R.S. Chapkin. Effects of chemoprotective diets on crypt adult stem cells-the cells of origin of colon cancer. Presented at the Experimental Biology Meeting, San Diego, CA, April 26-30, 2014.

250. J. Allen, Y.Y. Fan, J.M. Monk, R. Barhoumi, D.N. McMurray and R.S. Chapkin. n-3 polyunsaturated acids reduce Th17 polarization by decreasing responsiveness to interleukin-6. Presented at the Experimental Biology Meeting, San Diego, CA, April 26-30, 2014.

251. T.Y. Hou*, R. Barhoumi, G.M. Rivera, D.M. McMurray and R.S. Chapkin. Lipophilic natural compounds (n-3 polyunsaturated fatty acids) modulate plasma membrane organization in mouse $CD4^+$ T cells. Presented at the Experimental Biology Meeting, San Diego, CA, April 26-30, 2014. *Winner of the 2014 American Society of Biochemistry & Molecular Biology Graduate Student Award.

252. K. Triff, R. Zoh, J. Knight, B. Zhou, I. Ivanov, and R.S. Chapkin. Epigenetic mechanisms by which chemoprotective natural compounds promote Wnt induction and reduce colon cancer progression. Presented at the Epigenetics & Chromatin Meeting, Cold Spring Harbor, September 9-13, 2014.

253. C.R. Martin, J.M. Knight, L.A. Davidson, D. Herman, J.S. Goldsby, I.V. Ivanov, S.M. Donovan, and R.S. Chapkin. Non-invasive nutrigenomic strategies to define intestinal host responses in the preterm infant. To be presented at the 17th International Society for Research in Human Milk and Lactation (ISRHML) Conference From Human Milk Molecules to Population Health: Research Advances, Kiawah Island Golf Resort Kiawah Island, South Carolina, USA, October 23-27, 2014.

254. V.C. DeClercq, D.N. McMurray and R.S. Chapkin. Dysfunctional adipose tissue drives obesity-related colorectal cancer. Presented at Obesity Week, Boston, MA, November 2-7, 2014.

255. J.M. Knight, I. Ivanov, K. Triff, R.S. Chapkin and E.R. Dougherty. Detecting multivariate gene interactions in RNA-Seq data using optimal Bayesian classification. To be presented at the IEEE Global SIP14-workshop on Genomic Signaling Processing and Statistics, Atlanta, Georgia, December 3-5, 2014.

256. N.R. Fuentes, R. Barhoumi, I. Levental and R.S. Chapkin. Use of innocuous natural products to modulate membrane-cytoskeletal dependent Ras signaling. Presented at the Society for Toxicology Meeting, San Diego, CA, March 23-26, 2015.

257. S.M. Donovan, M.H. Monaco, J.M. Drnevich, L.A. Davidson, I. Ivanov, B. Lönnerdal and R.S. Chapkin. Programming of Intestinal Gene Expression by Mother's Milk: Evidence from Monkeys and Man. Presented at the Human Biology Association annual meeting, St. Louis, MO, March 25-26, 2015.

258. E. Kim, L.A. Davidson, B.S. Patil, G.K. Jayaprakasha, E.S. Callaway, N.D. Turner and R.S. Chapkin. Chemoprotective natural compounds targeting DNA damaged stem cells- the cells of origin of colon cancer. Presented at the Experimental Biology Annual Meeting, Boston, MA March 28- April 1, 2015.

259. K. Triff, J. Knight, I. Ivanov, B. Zhou and R.S. Chapkin. Epigenetic mechanisms by which natural chemoprotective natural compounds promote RXR/FXR signaling and reduce colon cancer progression. Presented at the Experimental Biology Annual Meeting, Boston, MA, March 28- April 1, 2015.

260. S. Athinarayanan, Y.Y. Fan, R.S. Chapkin and W. Liu. Role of fatty acid desaturase 1 (FADS1) in nonalcoholic liver disease (NAFLD). Presented at the 66th Annual Meeting of the American Association for the Study of Liver Diseases (AASLD), San Francisco, CA, November 13-17, 2015.

261. N.R. Fuentes, R. Barhoumi, I. Prior and R.S. Chapkin. Disruption of oncogenic Ras-driven dependencies using membrane targeted dietary bioactive (MTDBs). Presented at the NIH Ras Initiative Symposium, Frederick National Laboratory for Cancer Research, Frederick, MD, December 15-16, 2015.

262. A. Bahadorinejad, I. Ivanov, W. Qian, U. Braga-Neto and R.S. Chapkin. A Bayesian approach to the classification of microbial communities on rDNA16S sequencing data. Presented at the 3rd IEEE Global Conference on Signal & Information Processing, Orlando, FL, December 14-16, 2015.

263. R.S. Chapkin, V. DeClercq, L.A. Davidson and D.N. McMurray. Obesity promotes colonic stem cell expansion during cancer initiation. Presented at the 2016 Energy Balance and Cancer Research Retreat, M.D. Anderson Cancer Center, Houston Texas, January 26, 2016.

264. D.V. Seidel, J.R. Ford, R.J. Carroll, R.S. Chapkin and N.D. Turner. Epigenetic regulation of apoptosis in adult colon stem cells: Response to radiation and dietary interventions. Presented at the NASA Human Research Meeting, Galveston TX, February 8-11, 2016.

265. E. Kim, L.A. Davidson, M.E. Hensel, E.S. Callaway, N.D. Turner, B. Weeks and R.S. Chapkin. Rapidly cycling $Lgr5^{+}$ stem cells are exquisitely sensitive to bioactive compounds that modulate colon cancer risk. Presented at the Keystone Stem Cells and Cancer Meeting, Breckenridge, CO, March 6-10, 2016.

266. S.M. Donovan, M. Wang, L.A. Davidson, I. Ivanov and R.S. Chapkin. Microbial modulation of the neonatal immune system: Lessons from infants and piglets. Presented at the Comparative Gut Physiology Program, American Society for Animal Science Joint Meeting, July 21, 2016.

267. K. He, J. Huang, X. Qian, S. Donovan, R.S. Chapkin and I. Ivanov. Sparse canonical correlation analyses of multimodal omics data. Presented at the Biomath 2016 conference, Blagoevgrad, Bulgaria, June 19, 2016.

268. U.H. Jin, Y. Cheng, M. Denison, A. Shoshilov, R.S. Chapkin, A. Jayaraman, C. Allred, L. Davidson and S. Safe. 1,4-Dihydroxy-2-Naphthoic Acid (1,4-DHNA) and related compounds as Ah receptor ligands: SARs. Presented at the AhR International Scientific Conference, Rochester, NY, August 3-6, 2016.

269. E. Kim, I. Ivanov, J. Hua, R.S. Chapkin & E.R. Dougherty. Model-based study of the effectiveness of reporting lists of small feature sets using RNA-Seq data. Presented at the 7^{th} ACM Conference on Bioinformatics, Computational Biology, and Health Informatics conference, Seattle, WA, October 2-5, 2016.

270. C. Whitfield-Cargile, R.S. Chapkin. Non-invasive transcriptome is reflective of tissue-level transcriptome and reveals information related to microbiota-host interaction in a mouse model of NSAID enteropathy. Presented at the International Human Microbiome Consortium Congress (IMHC 2016), Houston, TX, November 9-11, 2016.

271. D. Seidel, K. Wahl, J. Ford, R. Carroll, R.S. Chapkin and N.D. Turner. Differential adult colon stem cell response to radiation source and dietary intervention. Presented at the NASA ASA Human Research Program Investigator's Workshop, January 23-27, 2017, Galveston, TX.

272. M.L. Salinas, N.R. Fuentes, R. Barhoumi and R.S. Chapkin. Dietary amphiphilic polyphenols modulate the biophysical properties of plasma membrane organization and membrane-dependent macropinocytosis. Presented at the American Associate for Cancer Research Annual Meeting, Washington D.C., April 1-5, 2017.

273. N.R. Fuentes, R. Barhoumi, M. Mlih, J. Karpac, P. Hardin, T. Steele, S. Behmer, I. Prior and R.S. Chapkin. Plasma membrane lipid therapy: Disruption of oncogenic Ras spatiotemporal organization by membrane targeted dietary bioactives (MTDB). Presented at the American Associate for Cancer Research Annual Meeting, Washington D.C., April 1-5, 2017.

274. E.L. Garcia-Villatoro, L.A. Davidson, E.S. Callaway, K.F. Allred, M.E. Hensel, A. Jayaraman, S. Safe, R.S. Chapkin and C.D. Allred. The aryl hydrocarbon receptor is a repressor of colorectal cancer development induced by a high-fat diet in mice. Presented at the Experimental Biology Annual Meeting, Chicago, IL, April 22-26, 2017.

275. R.S. Chapkin, E. Kim, L. Levy, L.A. Davidson, J.S. Goldsby, F.L. Miles, S.L. Navarro, T.W. Randolph, I. Ivanov, A.M. Kaz, C. Damman, D. Hockenbery, M.A. Hullar and J.W. Lampe. Microbial modification of colonic mucosal gene expression response to a flaxseed lignan extract intervention in humans. Presented at the Emerging Themes NIH microbiome workshop, Washington, D.C., August 16-18, 2017.

276. N.R. Fuentes, R. Barhoumi, M. Mlih, J. Karpac, P. Hardin, T. Steele, S. Behmer, I. Prior and R.S. Chapkin. Dietary bioactives disrupt oncogenic Ras spatiotemporal organization and reduce colon cancer risk. Presented at the Lone Star Society of Toxicology Meeting., Baylor University, Waco, TX, October 12, 2017.

277. U. Jin, Y. Cheng, H.J. Park, L.A. Davidson, E.S. Callaway, R.S. Chapkin, A. Jayaraman, A. Asante, C. Allred, E.A. Weaver and S. Safe. Synergistic interactions of Ah Receptor ligands and short chain fatty acids in colon-derived cells. Presented at the Lone Star Society of Toxicology Meeting., Baylor University, Waco, TX, October 12, 2017.

278. E.L. Garcia-Villatoro, L.A. Davidson, E.S. Callaway, K.F. Allred, M.E. Hensel, R. Menon, A. Jayaraman, S. Safe, R.S. Chapkin and C.D. Allred. Targeted deletion of the aryl hydrocarbon receptor in the colonic epithelium promotes the development of aberrant crypt foci in mice fed a high fat diet. Presented at the Cancer Prevention Research Institute of Texas Annual Meeting, Austin, TX, November 13-14, 2017.

279. U. Jin, H. Park, L.A. Davidson, B. Patil, G. Jayaprakasha, P. Tamamis, A.A. Ora, L. Mao, R.S. Chapkin, A. Jayaraman, C. Allred and S. Safe. Isoflavonoids as aryl hydrocarbon receptor agonists and antagonists: Structure-activity relationships. Presented at the Society of Toxicology Meeting., San Antonio, TX, March 10-15, 2018.

280. R. Fuentes, M. Mlih, R. Barhoumi, Y.Y. Fan, P. Hardin, T. Steele, S. Behmer, I.A. Prior, J. Karpac and R.S. Chapkin. Long chain n-3 fatty acids attenuate oncogenic Ras-driven proliferation by altering plasma membrane nanoscale proteolipid composition. Presented at the National Cancer Institute-American Society for Cell Biology subcellular to cellular cancer imaging workshop, Bethesda, MD, April 5-6, 2018.

281. E. Kuklinski, M. Horn, M. Milton, M.G. Maguire, G.S. Ying, M.C. Lin, R.S. Chapkin and P. Asbell. Association of systemic omega-3 fatty acids with dry eye signs and symptoms in the DRy Eye Assessment and Management (DREAM) study cohort at baseline. To be presented at the Association for Research in Vision and Ophthalmology (ARVO) meeting, Honolulu, HI, April 29 – May 3, 2018.

282. U.H. Jin, H. Park, X. Li, L.A. Davidson[†], C. Allred, B. Patil, G. Jayaprakasha, A.A. Orr, L. Mao, R.S. Chapkin, A. Jayaraman, P. Tamamis and S. Safe. Structure-dependent modulation of aryl hydrocarbon receptor-mediated activities by flavones. Presented at the NIH Centers for Advancing Research on Botanicals and Other Natural Products (CARBON) Program Annual Meeting, NIH Campus, Bethesda, MD, May 21, 2018.

283. N.R. Fuentes, M. Mlih, R. Barhoumi, Y.Y. Fan, P. Hardin, T. Steele, S. Behmer, I.A. Prior, J. Karpac and R.S. Chapkin. Plasma membrane lipid therapy: Disruption of oncogenic KRas nanoscale proteolipid composition by membrane targeted dietary bioactives (MTDB). Presented at the International Society for the Study of Fatty Acids and Lipids (ISSFAL) Meeting, Las Vegas, NV, May 27-31, 2018.

284. E. Kim, N.R. Fuentes, M.L. Salinas, A. Erazo-Oliveras, M.J. George, R.S. Zoh, M.E. Hensel, B.S. Patil, G.K. Jayaprakasha, I. Ivanov, N.D. Turner, B.R. Weeks and R.S. Chapkin. Increased plasma membrane order associated with oncogenic Apc and Kras signaling promotes cell proliferation in colonocytes. Presented at the International Society for the Study of Fatty Acids and Lipids (ISSFAL) Meeting, Las Vegas, NV, May 27-31, 2018.

285. R. Menon, E.L. Garcia-Villatoro, R. Riodan, L.A. Davidson, E.S. Callaway, K.F. Allred, S. Safe, R.S. Chapkin, C.D. Allred and A. Jayaraman. Aryl hydrocarbon receptor modulates microbiome composition and colon aberrant crypt foci formation with high fat diet in a sex-dependent manner. Presented at the American Society for Microbiology (ASM) Microbe Meeting, Atlanta, GA, June 7-11, 2018.

286. N.R. Fuentes, M. Milh, R. Barhoumi, Y.Y. Fan, P. Hardin, T.J. Steele, S. Behmer, I.A. Prior, J. Karpac and R.S. Chapkin. Long chain n-3 fatty acids attenuate oncogenic KRas-driven proliferation by altering plasma membrane nanoscale proteolipid composition. Presented at the 8th Annual Postdoctoral Science Symposium (APSS), October 2, 2018, MD Anderson Cancer Center, Houston, Texas.

287. A. Erazo-Oliveras, N.R. Fuentes, M.L. Salinas, K.K. Landrock and R.S. Chapkin. Emerging role for membrane therapy in shaping aberrant Wnt signaling. Presented at the 8th Annual Postdoctoral Science Symposium (APSS), October 2, 2018, MD Anderson Cancer Center, Houston, Texas.

288. H. Han, L.A. Davidson, K.K. Landrock, G. Yoon, I. Ivanov, J.S. Goldsby, C.D. Allred, A. Jayaraman, S.H. Safe and R.S. Chapkin. Protective role of aryl hydrocarbon receptor in regulating colonic stem cell and progenitor cell homeostasis. Presented at the American Association for Cancer Research (AACR) Intestinal Stem Cells and Colon Cancer: Biology to Therapy Meeting, Washington, D.C., September 27-30, 2018.

289. A. Erazo-Oliveras, N.R. Fuentes, M.L. Salinas, K.K. Landrock and R.S. Chapkin. Emerging role for membrane therapy in shaping aberrant Wnt signaling. Presented at the American Association for Cancer Research (AACR) Intestinal Stem Cells and Colon Cancer: Biology to Therapy Meeting, Washington, D.C., September 27-30, 2018.

290. D. Zhao, M. Kogut, K. Genovese, L.A. Davidson, R.S. Chapkin, M. Farnell and Y. Farnell. Establishment of three-dimensional organoids from chicken cecal crypts. Presented at the Symposium on Gut Health in Production of Food Animals, St. Louis, MO, November 5-7, 2018.

291. N.R. Fuentes, M. Mlih, J. Karpac, I. Corbin, and R.S. Chapkin. Remodeling of plasma membrane proteolipid composition by environmental chemicals and membrane-targeted dietary bioactives. Presented at the 58th Annual meeting of the Society of Toxicology (SOT), Baltimore, MD, March 10-14, 2019.

292. N.R. Fuentes, M. Mlih, R. Barhoumi, Y.Y. Fan, P. Hardin, T. Steele, S. Behmer, I. Prior, J. Karpac and R.S. Chapkin. Utilizing Drosophila to explore the role of dietary lipids in shaping EGFR/Ras signaling by altering plasma membrane nanoscale proteolipid composition. Presented at the 60th Annual Drosophila Research Conference - Genetics Society of America, Dallas, TX March 27-31, 2019.

293. H. Han, L.A. Davidson, Y.Y. Fan, J.S. Goldsby, G. Yoon, G.A. Wright, K.K. Landrock, B.R. Weeks, C.D. Allred, A. Jayaraman, I. Ivanov, J. Roper, S. H. Safe and R.S. Chapkin. Loss of aryl hydrocarbon receptor potentiates FoxM1 signaling to enhance self-renewal of colonic stem cell and progenitor cells. Presented at the American Institute for Cancer Research (AICR) 2019 Research Conference- Diet, Obesity, Physical Activity and Cancer - Beyond the Blueprint, University of North Carolina, Chapel Hill, NC, May 15-17, 2019.

294. Y.Z. Farnell, D. Zhao, M. Kogut, K. Genovese, L.A. Davidson and R.S. Chapkin. Development and establishment of organoid biobanking: long-term *ex vivo* cultures for three-dimensional organoids from chicken intestinal crypts. Presented at the Poultry Science Association (PSA) Annual Meeting, Montreal, Quebec, Canada, July 15-18, 2019.

295. A. Erazo-Oliveras, N.R. Fuentes, M.L. Salinas, K.K. Landrock and R.S. Chapkin. Dysregulation of plasma membrane homeostasis by mutant APC alters Wnt receptor spatial dynamics and drives aberrant Wnt signaling. Presented at the FASEB Gastrointestinal Tract XVIII Conference: Integrated biology of the GI super-organ, July 28-August 2, 2019.

296. H. Han, L.A. Davidson, Y.Y. Fan, J.S. Goldsby, G. Yoon, G.A. Wright, K.K. Landrock, B.R. Weeks, C.D. Allred, A. Jayaraman, I. Ivanov, J. Roper, S.H. Safe and R.S. Chapkin. Loss of aryl hydrocarbon receptor potentiates FoxM1 signaling to enhance self-renewal of colonic stem cell and progenitor cells. Presented at the FASEB Gastrointestinal Tract XVIII Conference: Integrated biology of the GI super-organ, July 28-August 2, 2019.

297. M.S. Salinas, N.R. Fuentes, R. Choate, D.N. McMurray and R.S. Chapkin. Adiponectin modulates membrane biophysical properties which may contribute to a reduction in colon cancer risk. Presented at the FASEB Gastrointestinal Tract XVIII Conference: Integrated biology of the GI super-organ, July 28-August 2, 2019.

298. J.A. DeLuca, A. Ufondu, F. Yang, R. Menon, M. Hensel, K.K. Landrock, K.F. Allred, S. Safe, R.S. Chapkin, A. Jayaraman and C.D. Allred. Loss of AhR in intestinal epithelial cells does not increase colon tumor formation, but increases beta-catenin expression and nuclear localization and changes in bacterial populations. Presented at the FASEB Gastrointestinal Tract XVIII Conference: Integrated biology of the GI super-organ, July 28-August 2, 2019.

299. H. Han, L.A. Davidson, Y.Y. Fan, J.S. Goldsby, G. Yoon, G.A. Wright, K.K. Landrock, B. Weeks, C.D. Allred, A. Jayaraman, I. Ivanov, J. Roper, S.H. Safe and R.S. Chapkin. Loss of aryl hydrocarbon receptor potentiates self-renewal of colonic stem and progenitor cells. Presented at the Bioactives, Botanticals and Redox Mechanisms meeting, Oregon State University, Corvallis, OR, August 14-16, 2019.

300. N.R. Fuentes, M. Mlih, G. Webster, J. Karpac, I. Corbin and R.S. Chapkin. Elucidating the impact of environmental chemicals and membrane-targeted dietary bioactives on EGFR nanocluster formation. Presented at the Lone Star Chapter of the Society of Toxicology 2019 Fall Meeting. Toxciology: A Multi-Disciplinary Translational Science. University of Texas Medical Branch, Galveston, Texas, November 14-15, 2019.

301. X. Wang, Y.Y. Fan, Z. Liu, R.S. Chapkin and W. Liu. Reduced fatty acid desaturase 1 function alters glucose metabolism and leads to hepatic stellate cell activation. To be presented at the American Society for Biochemistry and Molecular Biology Deuel Conference on Lipids, Coronado, CA, March 3-6, 2020. (Meeting cancelled, Covid-19).

302. M.L. Salinas, N.R. Fuentes, X. Wang, Y.Y. Fan, E.S. Callaway, K. Landrock, D.N. McMurrary, and R.S. Chapkin. High-fat diet-induced obesity modulates colonic $Lgr5^{+}$ stem cell homeostasis by dysregulating plasma membrane organization. To be presented at the American Society for Nutrition meeting, Seattle, WA, May 30- June 2, 2020. (Meeting cancelled, Covid-19).

303. S.L. Navarro, L. Levy, T.W. Randolph, L. Bettcher, N. Ngyen, F.C. Neto, D. Raftery, R.S. Chapkin, J.W. Lampe[1], M.A.J. Hullar. Effect of a flaxseed lignan intervention on plasma bile acids in a randomized, crossover trial. To be presented at the American Society for Nutrition meeting, Seattle, WA, May 30- June 2, 2020. (Meeting cancelled, Covid-19).

304. A. Erazo-Oliveras, M. Mlih, S.L. Salinas, K.K. Landrock, R.C. Wright, J. Karpac and R.S. Chapkin. A novel role for APC in coupling changes in plasma membrane organization with dysregulation of WNT receptor activity during colon cancer initiation. To be presented at the Biophysical Society Molecular Biophysics of Membranes conference, Lake Tahoe, CA, June 7-12, 2020. (Meeting cancelled, Covid-19).

305. M.L. Salinas, N.R. Fuentes, R. Choate, K.H. Jung, R.C. Wright and R.S. Chapkin. AdipoRon attenuates WNT signaling by reducing cholesterol-dependent plasma membrane rigidity. To be presented at the Biophysical Society Molecular Biophysics of Membranes conference, Lake Tahoe, CA, June 7-12, 2020. (Meeting cancelled, Covid-19).

INVITED SEMINARS

1. Presented seminar entitled "Phospholipid alteration in the HDL of patients following dialysis", Nutrition Graduate Group, University of California, Davis, CA. January 31, 1983.

2. Presented seminar entitled "Significance of dietary polyunsaturated fatty acids in cutaneous biology", Nutrition Graduate Group, University of California, Davis, CA. September 29, 1986.

3. Presented seminar entitled "Essential fatty acid metabolism in the macrophage", Department of Human Anatomy, University of California, Davis, CA. November 30, 1987.

4. Presented seminar entitled "Essential Fatty Acid Metabolism in the Skin", School of Dietetics and Human Nutrition, Macdonald College of McGill University, Montreal, Canada. October 14, 1987.

5. Presented seminar entitled "Essential Fatty Acid Metabolism in the Macrophage", Department of Foods and Nutrition, University of Alberta, Alberta, Canada. April 18, 1988.

6. Presented seminar entitled "Utilization of EFA by Macrophages", Research and Development Department, The Proctor & Gamble Company. May 24, 1988.

7. Presented seminar entitled "The ability of dietary lipids to influence macrophage metabolism", Department of Biochemistry, School of Medicine, Emory University, Atlanta, GA. June 6, 1988.

8. Presented seminar entitled "The Effect of Polyunsaturated Fatty Acids on Macrophage Function", Kraft, Inc., Technology Center, Glenview, IL. June 27, 1988.

9. Presented seminar entitled "Eicosanoids and macrophage metabolism", Department of Nutritional Sciences Rutgers University, New Brunswick, NJ. August 15, 1988.

10. Presented seminar entitled "Effects of Dietary Manipulation on Prostaglandin Metabolism", Department of Animal Science, Texas A&M University, College Station, TX. February 3, 1989.

11. Presented seminar entitled "Modulation of Carcinogenesis by Dietary Fatty Acids: Potential Role of Eicosanoids", Environmental Toxicology and Pharmacology Department, Texas A&M University, College Station, TX. February 5, 1990.

12. Presented seminar entitled "Effect of dietary n-3 fatty acids on macrophage phospholipid/eicosanoid metabolism and function", Department of Pathology, School of Veterinary Medicine, University of Guelph, Guelph, Ontario, Canada. December 13, 1990.

13. Presented seminar entitled "Effect of dietary lipids on cell signal transduction", American Health Foundation, Valhalla, NY. January 7, 1991.

14. Presented seminar entitled "The great health food store rip-off", Department of Student Health Services, Texas A&M University, College Station, TX. April 3, 1991.

15. Presented seminars entitled "Colonic cytokinetics and cell signaling: dietary effects" and "Diet modulation of macrophage anti-atherogenic potential," Hamilton Civic Hospitals Research Centre, Hamilton, Ontario, Canada, November 5-6, 1992.

16. Presented seminar entitled "Diet and colonic cell signaling," University of Illinois at Chicago, Department of Nutritional Sciences, Chicago, IL, November 12, 1992.

17. Presented keynote address entitled "Dietary modulation of colonic cell proliferation and signal transduction," Texas Carcinogenesis Meeting IX, Nutritional and Genetic Approaches to Cancer Prevention. M.D. Anderson Cancer Center, University of Texas, February 5, 1993.

18. Presented seminar entitled "Diet modulation of colonocyte intracellular signal transduction," Department of Nutritional Sciences, Faculty of Medicine, University of Toronto, Ontario, Canada, January 19, 1994.

19. Presented seminar entitled "Nutrition and the college student," A.P. Beutel Health Center, Department of Student Health Services, Texas A&M University, February 12, 1994.

20. Presented seminar entitled "Diet modulation of colonocyte signal transduction," the University of Texas at Austin Nutritional Sciences Seminar Series, March 25, 1994.

21. Presented seminar entitled "Effects of diet and carcinogen on colonic intracellular signal transduction," Department of Nutritional Sciences, University of Guelph, Canada, February 24, 1995.

22. Presented seminar entitled "Dietary modulation of colonic intracellular signal transduction: Relevance to colon cancer," Centro De Biologia Molecular, Universidad Autonoma, Madrid, Spain, June 27, 1995.

23. Presented keynote address entitled "Select dietary fats and fibers block carcinogen-induced alterations of colonic intracellular second messengers," American Institute for Cancer Research Annual Research Conference on "Dietary Fat and Cancer: Genetic and Molecular Interactions," Washington, D.C., August 29, 1996.

24. Presented seminar entitled "Modulation of intracellular second messengers by dietary fat during tumor development in rat colon," Center for Nutritional Sciences, University of Florida, Gainesville, FL, October 24, 1996.

25. Presented seminar entitled "Modulation of colonic epithelial programmed cell death by diet," Purdue University Cancer Research Center, West Lafayette, IN, April 30, 1997.

26. Presented seminar entitled "Select dietary lipids block carcinogen-induced changes in colonic epithelial proliferation and apoptosis," Sealy Cancer Center for Oncology and Hematology, University of Texas Medical Branch, Galveston, TX, May 9, 1997.

27. Presented seminar entitled "Putative mechanisms by which dietary n-3 PUFAs reduce colon cancer risk," Graduate Faculty of Nutrition, University of Illinois, Champaign, IL, November 12, 1997.

28. Presented seminar entitled "Dietary modulation of colonocyte signal transduction," Department of Cell Biology, University of Texas M.D. Anderson Cancer Center, Houston, TX, December 16, 1997.

29. Presented keynote address entitled “Cell proliferation and apoptosis in rodent species: Modulation by diet” at the 8th Annual Research Conference on Colon Cancer Prevention and Dietary Modulation of Cellular and Molecular Mechanisms, American Institute for Cancer Research, September 4, 1998.

30. Co-chaired mini-symposium on “Lipid and Fatty Acid Metabolism and Transport I” and presented overview seminar entitled “Dietary lipids - molecular mechanisms of action” at the Experimental Biology 99 Meeting, Washington, D.C., April 19, 1999.

31. Presented continuing education course entitled “Molecular mechanisms in the prevention of carcinogenesis: Role of diet” at the XXXVII European Congress of Toxicology, Oslo, Norway, June 27, 1999.

32. Presented an invited seminar entitled “Diets high in n-3 polyunsaturated fatty acids reduce the formation of DNA adducts during the initial stages of colon tumorigenesis” at the Paterson Institute for Cancer Research, Christie Hospital Trust, Manchester, U.K., July 1, 1999.

33. Presented an invited seminar entitled “Dietary n-3 polyunsaturated fatty acids alter the subcellular localization of oncongenic ras: colon cancer implications” at the Department of Biology, Indiana University - Purdue University at Indianapolis, September 17, 1999.

34. Presented an invited seminar entitled “How does dietary fish oil reduce colon cancer risk?” at the Department of Agricultural, Food and Nutritional Science and Department of Medicine, March 1, 2000 at the University of Alberta, Edmonton, Canada.

35. Presented invited seminars entitled "n-3 PUFA: Too good to be true?" and "Dietary GLA retards atherogenic progression" at the 2000 American Oil Chemists Meeting, April 25, 26, San Diego, CA.

36. Presented an invited seminar entitled “Diet modulation of apoptosis” at the NIAID, NCCAM, NIH – sponsored meeting on “The importance of omega-3 fatty acids in the attenuation of immune-mediated diseases", September 18, 2000, Bethesda, MD.

37. Presented an invited seminar entitled "Antitumorigenic properties of marine oils", Department of Nutrition, School of Medicine, University of North Carolina, Chapel Hill, April 19, 2001.

38. Presented an invited seminar entitled "n-3 PUFA modulation of cell membranes: Effect on cell function", at the Cellular and Molecular Aspects of Omega-3 Fatty Acids and Cancer meeting, June 28-30, 2001, Breckenridge, CO.

39. Presented an invited seminar entitled "Dietary PUFAs: Molecular mechanisms of action". Nutracon, 2001. San Diego, CA. July 10, 2001

40. Presented an invited seminar entitled "Response of colonocytes to dietary intervention" at the Albert Einstein College of Medicine and Cancer Center, Montefiore Hospital, New York, December 19, 2001.

41. Presented invited talk entitled "Noninvasive detection of colon cancer biomarkers" at the Activities to Promote Research Collaborations (APRC) Workshop, Division of Cancer Biology, NCI, January 8, 2002.

42. Presented invited talk entitled "Chemopreventive properties of n-3 PUFA - New perspectives in signal transduction", Department of Food Science and Human Nutrition, Colorado State University, Fort Collins, CO, July 15, 2002.

43. Presented invited talk entitled "Diet and colon cancer, mechanisms of action", Naylor Dana Institute for Disease Prevention, Valhalla, NY, January 10, 2003.

44. Presented invited talk entitled, "Can diet modulate oxidative susceptibility in the colon", American Gastrointestinal Association Annual Meeting, Orlando, FL., May 18, 2003.

45. Presented invited talk entitled, "Changes in gene expression in exfoliated cells: role of bioactive food components", at the NIH Exfoliated Cells, Bioactive Food Components and Cancer Prevention Workshop, Bethesda, MD. May 23, 2003.

46. Presented invited talk entitled, "Molecular mechanisms of n-3 (PUFA)-induced modulation", at the FASEB Summer Conference on the Impact of Nutritional Status on Immune Functions and Health, Saxtons River, VT, July 5-10, 2003.

47. Presented invited talk entitled "Efficacy of n-3 PUFA as a chemotherapeutic agent", Department of Nutrition, University of Tennessee, Knoxville, TN, November 5, 2003.

48. Presented invited talk entitled "Dietary lipids in colon cancer prevention: Mechanisms of action", Fred Hutchinson Cancer Research Center, Division of Public Health Science, Seattle, WA, November 12, 2003.

49. Presented invited talk entitled “Chemopreventive Lipids: Molecular Mechanisms of Action”, Western Human Nutrition Research Center, University of California-Davis, CA April 26, 2004.

50. Presented invited talk entitled “Dietary lipids and colon cancer: a fishy perspective”, Comprehensive Cancer Center, The Ohio State University, Columbus, OH June 11, 2004.

51. Presented invited talk entitled “Dietary lipids and colon cancer” Department of Physiology, University of Liverpool, Liverpool, England, July 14, 2004.

52. Presented invited talk entitled “Dietary modulation of intestinal membrane structure and function”. Institute for Molecular Biosciences, University of Queensland, Brisbane, Australia, August 11, 2004.

53. Presented invited talk entitled Dietary lipids, chronic inflammation and colon cancer: an n-3 PUFA perspective.” Mead Johnson Nutritionals, Evansville, IN, January 7, 2005.

54. Presented an invited talk entitled “Chemoprotective/anti inflammatory fatty acids: implications of lipid microdomains”. Department of Nutrition, University of North Carolina, Chapel Hill, NC May 19, 2005.

55. Presented invited talk entitled "Noninvasive profiling of intestinal gene expression by targeting exfoliated cells." Division of Gastroenterology, Scott & White Hospital, Texas A&M Health Science Center, Temple, TX, September 27, 2005.

56. Presented an invited talk entitled "Docosahexaenoic acid: an important membrane-altering omega-e fatty acid" at the Omega-3 Fatty Acids: From Bench to Bedside Symposium, University of Guelph, Guelph, Ontario, Canada, October 21, 2005.

57. Presented an invited talk entitled "Membrane altering properties of omega-3 fatty acids" at the Signaling Defects in Aging Immune Cells Symposium, NIH, October 24-25, 2005.

58. Presented an invited talk entitled "How folic acid protects colon cells from cancer" at the Center for Environmental and Rural Health symposium on "Folic acid: from prevention to intervention. How a B-vitamin can impact human health", Texas A&M University, College Station, TX, December 16, 2005.

59. Presented an invited talk entitled "Why are Omega -3 fatty acids chemo-protective?" at the M.D. Anderson Cancer Center, Integrative Medicine Program Lecture Series, February 16, 2006.

60. Presented an invited talk entitled "Effects of dietary n-3 PUFA on T-cell membrane composition and function: a unifying hypothesis, at the Experimental Biology meeting symposium on "Dietary lipids and cell membrane structure/function in immunity and inflammation", April 2, 2006, San Francisco, CA.

61. Presented an invited talk entitled "n-6 and n-3 polyunsaturated fatty acids and cancer" at the 97th Annual American Oil Chemists' Society meeting, St. Louis, MO, May 3, 2006.

62. Presented an invited talk entitled "Inflammation link to colon cancer" at the Department of Dermatology, School of Medicine, University of California-Davis, June, 26, 2006.

63. Presented an invited talk entitled ""Immunomodulatory effects of omega-3 fatty acids: Putative link to inflammation and colon cancer" at the American Institute for Cancer Research International Conference, Washington, D.C., July 13-14, 2006.

64. Presented an invited talk entitled "Fatty acids and colon cancer: novel mechanisms of action" at the Children's Nutrition Research Center (CNRC), Baylor College of Medicine, Houston, TX, October 12, 2006.

65. Presented an invited talk entitled "Colon genomics, a non-invasive approach", at the Texas Medical Center Digestive Diseases Center, GI Research Forum, Baylor College of Medicine, Houston, TX, October 12, 2006.

66. Presented an invited talk entitled "Promoting Apoptosis as a Strategy for Dietary/Chemoprevention of Cancer", at the Department of Biochemistry and Microbiology, Marshall University School of Medicine, Huntington, WV, March 30, 2007.

67. Presented an invited talk entitled "Bioactive dietary long chain fatty acids: Emerging mechanisms of action", at the International Congress on Conjugated Linoleic acid (CLA): From Experimental Models to Human Application. Villasimius, Italy, September 22, 2007.

68. Presented an invited talk entitled "Dietary EPA/DHA: Emerging mechanisms of action" at the Long Chain Omega-3 conference, OmegaPure, Houston, TX, November, 15, 2007.

69. Presented an invited talk entitled "Intestinal homeostasis, inflammation and neoplasia: Dietary chemoprevention strategies" at the Cancer Prevention Fellowship Program, Gene Regulation Section, Office of Preventive Oncology, National Cancer Institute, NIH, Frederick, MD, February 13, 2008.

70. Presented an invited talk entitled "Dietary chemoprevention strategies" at the University of Alabama-Birmingham Comprehensive Cancer Center, May 5, 2008.

71. Presented an invited talk entitled "Combination chemotherapy in the colon: Can the efficacy of fish oil be enhanced?, at the International Society for the Study of Fatty Acids & Lipids Meeting, Kansas City, MO, May 17-22, 2008.

72. Presented an invited talk entitled "Intestinal homeostasis and neoplasia: Dietary chemoprevention strategies" at the Canadian Society for Nutritional Society (CSNS) meeting in Toronto, Canada, May 29-31, 2008.

73. Presented an invited talk entitled "Docosahexaenoic acid: An emerging mediator of inflammation" at the Martek Workshop on DHA as a Required Nutrient in Baltimore, MD, June 20-21, 2008.

74. Presented an invited talk entitled "Omega-3 fatty acids and cancer prevention" at the American Institute for Cancer Research (AICR) Research Conference on Food Nutrition, Physical Activity and Cancer, Washington, D.C., November 6-7, 2008.

75. Presented an invited talk entitled "How do n-3 PUFA suppress chronic inflammation?: Mechanisms of action" at the 2nd International Zone Conference on "Anti-inflammatory Medicine", Cancun, Mexico, November 12-15, 2008.

76. Presented an invited talk entitled "Cancer and inflammation: chemoprotective effects of n-3 polyunsaturated fatty acids" at the ILSI North America Meeting, Tucson, Arizona, January 19-21, 2009.

77. Presented an invited talk entitled "Cancer and inflammation: Chemoprotective effects of n-3 PUFA" at the University of North Carolina at Chapel Hill, Gillings School of Global Public Health, Department of Nutrition and the Lineberger Cancer Center, March 3, 2009.

78. Presented an invited talk entitled "Enabling personalized cancer medicine through non-invasive analysis of gene-expression patterns" at the University of Texas MD Anderson GI Research Seminar Series, Houston, Texas, April 9, 2009.

79. Presented an invited talk entitled "Anti-inflammatory properties of n-3 polyunsaturated fatty acids – Old concepts and new insights" at the Pediatric Academic Societies Annual Meeting, Baltimore, MD, May 4, 2009.

80. Presented an invited talk entitled "Fatty acids, lipid rafts and cell signaling" at the Fatty Acids in Cell Signaling meeting, Keble College, Oxford University, UK, July 14, 2009.

81. Presented an invited talk entitled "Modulation of non-coding RNA signatures: Cancer chemoprevention implications" at the "Dietary regulation of microRNA expression and cancer prevention symposia, Experimental Biology Meeting Annual Meeting, Anaheim, CA, April 25, 2010.

82. Presented an invited talk entitled "The protective role of diet in mediating oxidative stress and apoptosis in the colon" at the Department of Cellular and Structural Biology, Barshop Aging Institute, University of Texas Health Science Center, San Antonio, TX, Tuesday, May 11, 2010.

83. Presented an invited talk at the "Nutritional Solutions to Cancer" Symposium at the Canadian Nutrition Society Annual Meeting, Edmonton, Alberta, June 4, 2010.

84. Presented an invited talk as part of the Sonia Wolf Wilson Lectureship entitled "Cancer Biology - Complex role of dietary lipids", Department of Nutritional Sciences, University of Texas at Austin, September, 17, 2010.

85. Presented an invited talk entitled "Integrated microRNA and mRNA expression profiling in a colon carcinogenesis model: Effect of a chemoprotective diet", Department of Food Science and Nutrition, University of Minnesota, St. Paul, MN, December 14, 2010.

86. Presented an invited talk entitled "Regulatory activity of PUFAs in T cell signaling" at the Symposia for Metabolic Regulation and Immune Cells: Implication for Chronic and Infectious Diseases, Experimental Biology Meeting, Washington D.C., April 11, 2011.

87. Presented an invited talk entitled "Lipid rafts and immune function" at the Nutritional Immunology: Role in Health and Disease FASEB Summer Research Conference, Carefree, AZ, July 11, 2011.

88. Presented an invited talk entitled "Polyunsaturated fatty acids and their impact on the immune system" at the Linus Pauling Institute conference on "Diet and Optimum Health", Oregon State University, Corvalis, OR, September 14, 2011.

89. Presented an invited talk entitled "Molecular mechanisms of chemoprotective properties of n-3 fatty acids: New insights" at the American Institute for Cancer Research Conference, Washington, D.C., November 3-4, 2011.

90. Presented an invited talk entitled "Novel mechanistic insights into the actions of n-3 PUFA on mucosal biology" at the 10th Fatty Acids in Cell Signaling Meeting, Louisiana State University Health Sciences Center, New Orleans, LA, November 8, 2011.

91. Presented an invited talk entitled "Teaming with Engineers to make sense of nutrition genomic data" at the Institute for Genomic Biology, University of Illinois, Champaign, IL, April 3, 2012.

92. Presented an invited talk entitled "Dietary chemoprevention: How to get to the 4th percentile" at the University of Tennessee, College of Veterinary Medicine, Knoxville, TN, April 16, 2012.

93. Presented a plenary lecture entitled "Why is it important to study the effects of dietary lipids on membranes?" at the 10th Congress of the International Society for the Study of Fatty Acids & Lipids (ISSFAL), Vancouver, Canada, May 26-30, 2012.

94. Presented an invited talk entitled "Diet, lipid rafts, inflammation and cancer" at the 6th International Immunonutrition Workshop, Palma de Mallorca, Spain, October 15-17, 2012.

95. Presented an invited talk entitled "Dietary chemoprevention: the missing ingredient" at the Department of Clinical Cancer Prevention, MD Anderson Comprehensive Cancer Center, Houston, TX, November 27, 2012.

96. Presented an invited talk entitled "Effect of diet on gut physiology: From membrane structure to genomic diagnosis" at the Saban Research Institute, Children's Hospital Los Angeles, December 5, 2012.

97. Presented an invited talk entitled "How diet regulates colon cancer development" at the Canadian Digestive Diseases Week Meeting, Victoria, British Columbia, Canada, March 1, 2013.

98. Presented an invited talk entitled "Teaming up with the Physical Sciences to make sense of chemoprevention data", Departments of Computer and Mathematical Sciences and Natural Sciences, University of Houston-Downtown, April 5, 2013.

99. Presented an invited talk entitled "Dietary fish oil: A magic bullet?", at the Texas Academy of Nutrition & Dietetics Annual Meeting, Austin, TX, April 12, 2013.

100. Presented an invited talk entitled "Dietary chemoprevention: Why membranes matter", at the Department of Veterinary and Biomedical Sciences, The Pennsylvania State University, April 17, 2013.

101. Presented an invited talk entitled "Chemoprevention using dietary agents", at the Molecular Medicine Seminar Series, UT Health Science Center, San Antonio, April 24, 2013.

102. Presented an invited talk entitled "Dietary chemoprevention as a tool to thwart cancer development and recurrence," Georgia Regents University Cancer Center, May 23, 2013.

103. Presented an invited talk entitled "Emerging role for chemoprotective fatty acids in shaping plasma membrane rafts", at the FASEB Research Conference on Protein Lipidation, Signaling, and Membrane Domains, Saxton River, Vermont, July 14-19, 2013.

104. Presented an invited talk entitled "Why do we need to invest in dietary chemoprevention" at MD Anderson Cancer Center's Integrative Medicine Program Lecture Series, Houston, TX, October 15, 2013.

105. Presented an invited talk entitled "Fat-fiber combination: the missing ingredient?" at the 12th Annual AACR Conference on Frontiers of Cancer Prevention Research, National Harbor, MD, October 27-30, 2013.

106. Presented an invited talk entitled "Dietary regulation of microRNA and gene expression profiling in a preclinical model of colon carcinogenesis", at the American Institute for Cancer Research Conference, Washington, D.C., November 7-8, 2013.

107. Presented an invited talk entitled "Nutritional chemoprevention – the missing ingredient", at the 11th Annual Nutrition & Health Conference, Dallas TX, May 4-5, 2014.

108. Presented invited talks entitled "Diet and epigenetics: Is this the key to personalized cancer prevention" and "Diet and stem cells: A new possibility in cancer prevention", at the VI Brazilian Conference on Nutrition & Cancer, Gaepao 2014 and IV International Conference on Nutritional Oncology (ICNO), Sao Paulo, Brazil, May 12-15, 2014.

109. Presented an invited talk entitled "Why cancer centers need to embrace dietary chemoprevention", at the Department of Medicine, University of Florida & Shands, September 2, 2014.

110. Presented an invited talk entitled "Diet and stem cells – an evolving paradigm", at the University of Texas San Antonio CTRC Annual Symposium, September 26, 2014.

111. Presented an invited talk entitled "Diet-derived bioactive agents: Role in chemoprevention", at the Department of Human Health and Nutritional Sciences Department, University of Guelph, Guelph, Ontario, Canada, November 24, 2014.

112. Presented an invited talk entitled "Non-invasive strategies to define intestinal host responses in the human infant", at the Children's Environmental Health Network Meeting, UT Austin, February 6, 2015.

113. Presented an invited talk entitled "Diet, gut microbiology, and host phenotype relationships: Non-invasive strategies to assess functional interactions in the human infant", at the Gut Microbiota for Health World Summit, Barcelona Spain, March 14, 2015.

114. Presented the 27th Annual Virginia A. Beal lecture entitled "Winning the chemoprevention war: Reducing inflammation through nutrition", at the University of Massachusetts-Amherst, April 21, 2015.

115. Presented an invited talk entitled "Diet, gut microbiology, and host phenotype relationships: Non-invasive strategies to assess functional interactions in the human intestine", at the Cancer Prevention and Control Grand Rounds, MD Anderson Cancer Center, Houston, TX, July 17, 2015.

116. Presented an invited talk entitled "Impact of dietary bioactives on chronic disease risk", at the Malcolm Trout Annual Lecture Series, Michigan State University, September 14, 2015.

117. Presented an invited talk entitled "Crucial role of membrane-based signaling in reducing chronic disease risk", at the "From Genes to Human Physiology" Meeting, Toronto, Canada, October 25-27, 2015.

118. Presented an invited talk entitled "Natural dietary bioactives modulate membrane-cytoskeletal signaling", at the 6th International Conference on Food Factors (ICoFF)

Bioconvergence for Food Function Meeting, Seoul, Republic of Korea, November 22-25, 2015.

119. Presented an invited talk entitled "Cancer prevention, gut microbiology, and host phenotype relationships: Non-invasive strategies to assess functional interactions" in the Department of Food Science and Biotechnology, Keung Hee University, Soul, Korea, November 24, 2015.

120. Presented an invited talk entitled "Molecular basis for cancer chemoprevention by dietary constituents" at the Huntsman Cancer Center, University of Utah, Salt Lake City, UT, November 30, 2015.

121. Presented an invited talk entitled "Noninvasive molecular fingerprinting of host microbiome interaction in neonates", at the Microbiome & Cancer Symposium – Environmental Determinants of Disease, Center for Translational Environmental Health Research, Children's Nutrition Research Center, Houston, Texas, December 4, 2015.

122. Presented an invited talk entitled "Molecular basis for dietary chemoprevention" at the Friedman School of Nutrition Science and Policy, and Sackler Graduate School at Tufts University, February 8, 2016.

123. Presented an invited talk entitled "Membrane therapy: Targeting cell membrane composition and structure as a molecular basis for assessing walnut-derived bioactives", at the Walnut Commission Scientific Board Annual Meeting, Maui, HI July 26-28, 2016.

124. Presented an invited talk entitled "Interactions of dietary amphiphiles with membranes: Implications for chronic disease prevention", at the 12th Congress of the International Society for the Study of Fatty Acids and Lipids, Stellenbosch, South Africa, September 7, 2016.

125. Presented an invited talk entitled "Prioritizing molecular targets for cancer prevention using nutritional combinations" at the University of Connecticut Center for Molecular Medicine, Farmington, CT, December 14, 2016.

126. Presented an invited talk entitled "Chemoprotective effects of dietary bioactives - involvement of microbiota-host crosstalk" at the Canadian Nutrition Society Meeting on Advances in Nutrition, Gut Health and Microbiome, January 16, 2017.

127. Presented an invited talk entitled "Development of a predictive model for postnatal intestinal host responses and risk of neonatal disease" at the Human Microbiome Congress, San Diego, CA, January 25, 2017.

128. Presented an invited talk entitled "Emerging role of chemoprotective agents in the dynamic shaping of plasma membrane organization" at the Department of Integrative Biology & Pharmacology, University of Texas Health Science Center, Houston, McGovern Medical School, TX, May 1, 2017.

129. Presented an invited talk entitled "Use of the exfoliome to identify gut microbe-host phenotype relationships in neonates" at the USDA Children's Nutrition Research Center (CNRC), Houston, TX, May 11, 2017.

130. Presented an invited talk entitled "Development of a predictive model for postnatal intestinal host responses and risk of neonatal disease" at the Baylor College of Medicine – Texas Children's Hospital, Houston, TX, May 11, 2017.

131. Presented an invited talk entitled "Expanding the primary cancer chemoprevention armamentarium using dietary combinations" at the Nutritional Activity Affinity Group seminar series, Fred Hutchinson Cancer Center, Seattle, WA, May 31, 2017.

132. Presented an invited talk entitled "Shaping biological membranes using omega 3 fatty acids to reduce cancer risk" at the CPhl Worldwide meeting, Messe Frankfurt, Germany, October 24, 2017.

133. Presented an invited talk entitled "How to combine dietary bioactives to reduce colon cancer risk" at the Society for Integrative Oncology 14th International Conference, Chicago, IL, November 12, 2017.

134. Presented an invited talk entitled "Targeting plasma membrane lipid composition as a novel approach to anti-cancer therapy" at the Integrative Biosciences Center (IBio), Wayne State University, Detroit, MI, March, 7, 2018.

135. Presented an invited talk entitled "Why society needs researchers; How to be a complete scientist" at the American Society for Biochemistry & Molecular Biology (ASBMB) Career Development Program Workshop, Experimental Biology Meeting, San Diego, CA, April 21, 2018.

136. Presented an invited talk entitled "Omega-3 fatty acids, lipid rafts, and T cell signaling" at the FASEB Summer Conference on Nutritional Immunology and the Microbiota: Rules of Engagement in Health and Disease Meeting, Leesburg, VA, June 24-29, 2018.

137. Presented an invited talk entitled "Longitudinal host-microbe multi-omic data integration as a means to predict chronic disease risk" at the Bioinformatics and Cancer Symposium, Center for Statistical Bioinformatics, Institute for Applied Mathematics and Computational Science, Texas A&M University, VA, September 21, 2018.

138. Presented an invited talk entitled "Molecular basis for dietary chemoprevention of cancer: Emerging role of the Aryl Hydrocarbon Receptor" at the Department of Comparative Biosciences, Interdisciplinary Environmental Toxicology Program, Beckman Institute, University of Illinois at Urbana-Champaign, October 5, 2018.

139. Presented an invited talk entitled "Fat-fiber interaction and colon cancer risk" at the International Symposium on Nutrition and Human Health, Texas A&M University, November 3-4, 2018.

140. Presented an invited talk entitled "Expanding the primary cancer prevention armamentarium using dietary combinations & exfoliomics" at the EDRN Great Lakes New England Center Cancer Biomarkers Meeting, Boca Raton, FL, December 2-4, 2018.

141. Presented an invited webinar/talk entitled "Pros and cons of using animal models to advance nutrition research in relation to colon cancer prevention". Sponsored by the Nutrition

Science Research Group, Division of Cancer Prevention, National Cancer Institute, February 19, 2019.

142. Presented an invited talk entitled "Role of dietary combinations & exfoliomics in the cancer prevention armamentarium" at the Division of Gastroenterology, Duke University, Durham NC, May 13, 2019.

143. Presented an invited talk entitled "Novel cancer prevention strategies to delineate responses to diet and gut microbial-derived bioactive agents" at the American Institute for Cancer Research (AICR) 2019 Research Conference- Diet, Obesity, Physical Activity and Cancer - Beyond the Blueprint, University of North Carolina, Chapel Hill, NC, May 15-17, 2019.

144. Presented an invited talk entitled "Molecular basis for dietary chemoprevention" at the NIH National Cancer Institute's Outstanding Investigators Award (OIA) program, NCI Campus, Rockville, MD, May 29-30, 2019.

145. Presented an invited talk entitled "AhR chemoprevention and exfoliomics: A noninvasive method to monitor host/microbiome crosstalk in the gut" at the Texas Medical Center Digestive Diseases Center, Department of Medicine, Gastroenterology & Hepatology, Baylor College of Medicine, Houston, TX, September 26, 2019.

146. Presented an invited talk entitled "New view of the patient: The role of exfoliomics & systems biology in creating a more predictive, preventive & personalized approach to medicine" at the Platinum Summit Meeting, Denver, CO, December 7, 2019.

147. Presented an invited talk entitled "Role of integrative nutrition in reducing chronic disease risk: A mechanistic perspective" at the College of Health Solutions, Arizona State University, January 14, 2020.

Graduate Student and Post-Doctoral Trainee List

M.S. STUDENTS

Yang-Yi Fan, Nutrition, 1991
Kara Fowler, Nutrition,1992

Jennifer Pickering, Nutrition, 1996
*Christin Aymond, Nutrition, 1997
Amy Clark, Nutrition, 1998
Roxanne Brown, Biochemistry, 1999
Esther Collett, Nutrition, 1999
Jennifer Arrington, Nutrition, 2002
Laura Bancroft, Nutrition, 2002
YeeVoon Ng, Nutrition, 2004
**Raje Yog, Nutrition, 2011
Jeannie Allen, Nutrition, 2014
Miranda George, Biotechnology-2018
Bianca Tomaszewski, Biochemistry & Biophysics-2019
Destiny Mullens, Veterinary Integrative Biosciences-Present

Ph.D. STUDENTS

**Dong-Yeon Lee, Nutrition,1992
Yang-Yi Fan, Nutrition,1996
*Yi-Hai Jiang, Nutrition,1996
**Chris Jolly, Nutrition, 1996
Lan Ly, Nutrition, 2004
**Jeongmin Seo, Nutrition, 2004
*Kirsten Switzer, Nutrition, 2004
Ping Zhang, Nutrition, 2005
Satya Kolar, Nutrition, 2007
**Wooki Kim, Nutrition, 2008
*Jia Qian, Nutrition, 2011
Chen Zhao, Electrical Engineering, 2011

Manasvi Shah, Genetics, 2012

**Harmony Turk, Nutrition, 2012

****[1]Tim Hou, Biochemistry, 2014
***Karen Triff, Biology, 2015
Jason Knight, Computational Biology, 2015
Robert Fuentes, Toxicology-2017
Eunjoo Kim, Molecular Medicine-2017
Huajun Han, Biochemistry & Biophysics-2020
Michael Salinas, Nutrition-Present

***American Society for Nutrition Graduate Student Award Finalist**
****American Society for Nutrition Graduate Student Award Winner**
*****NIH predoctoral recipient - Promote Diversity in Health-Related Research**
******National Sciences and Engineering Research Council of Canada (NSERC) pre-doctoral scholarship recipient.**
[1]American Society for Biochemistry & Molecular Biology Graduate Student Award Winner

POST-DOCTORAL TRAINEES

Casimir Akoh (1990), Vicki Dobre (1992-1994), *******Harold Aukema (1992-1994), Laurie Davidson (1992-Present), Jamie Laurenz (1995), Joan Carrick (1996-1998), Yang-Yi Fan (1996-Present), Yi-Hai Jiang (2002-2004), *******David Ma (2004-2005), Teofila Santos (2005), Jeongmin Seo (2004-2006), Michael Schwartz (2006-2007), Chandra Emani (2007-2008), Satya Kolar (2009), Wooki Kim (2010), *******Jennifer Monk (2010-2012), Scott Schwartz (2010-2011), Roger Zoh (2012-2014), Vanessa DeClercq (2013-2014), Tim Hou (2015), [+, ++]Alfredo Erazo-Oliveras (2016-Present), Grace Yoon (2017-Present), Robert Fuentes (2018-2019), Alexander Roitershtein (2018-Present); Xiaoli Wang (2019-Present), Monica Munoz Vega (2020), Hee Cheol Chung (2020).

*****National Sciences and Engineering Research Council of Canada (NSERC) post-doctoral scholarship recipient.**

[+]Ford Foundation Postdoctoral Fellowship, Office of the National Academies of Sciences, Engineering, and Medicine (2017-2018).

[++]NIH Post-Doctoral Diversity Award in Health-Related Research (2017-2019).