

Curriculum Vitae

NAME	POSITION TITLE
Henry J. Thompson	Professor

EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
Rutgers University, New Brunswick, NJ	Ph.D.	1975	Nutrition
	M.Phil.	1974	Nutrition
	M.S.	1974	Nutrition
	B.S.	1972	Environmental Sciences

Experience

Professor, Cancer Prevention Laboratory, Colorado State University 2002-Present
Senior Scientist, AMC Cancer Research, 1988-2002
Chair, Center for Nutrition in the Prevention of Cancer, AMC Cancer Research Center, 1998-2002
Director, Division of Laboratory Research, AMC Cancer Research Center, 1993-1997
Deputy Director, Laboratory Research Program, AMC Cancer Research Center, 1989-1993.
Chief, Laboratory of Nutrition Research, AMC Cancer Research Center, 1988-1989.
University of New Hampshire, Professor of Nutrition, 1985-1988.
University of New Hampshire, Director, Human Nutrition Center, 1983-1988
University of New Hampshire, Associate Professor of Nutrition, 1979-1985
University of New Hampshire, Chairman, Department of Home Economics, 1979-1982.
ITT Research Institute, Research Nutritionist, 1978-1979.
Associate Nutritionist, 1976-1978
Mayo Clinic, Post Doctoral Research Fellow, 1975-1976.
Rutgers University, Research Intern, 1973-1975.

Professional Activities

Member, Metabolic Pathology Study Section, National Institutes of Health, 1992-1994.
Member, Chemical Pathology Study Section, National Institutes of Health, 1984-1988.
Member, ACS Nutrition and Cancer Study Section, 1995-1999
Member, AICR Review Group 1 2000-Present
Member, Department of Defense Breast Cancer Review Groups 1999, 2000
Member of the American Society of Nutritional Sciences.
Member of the American Association for Cancer Research.

Full-Length Publications

1. Thompson, H.J., Griminger, P., and Evans, J.L. (1976) Effect of dietary copper, manganese, and zinc on nitrogen equilibrium and mineral distribution subsequent to trauma in mature rats. *J Nutr*, 106, 1421-1428.
2. Veneziale, C.M., Deering, N.G., and Thompson, H.J. (1976) Gluconeogenesis in isolated rat hepatic parenchymal cells. IX. Differential effects of glucagon and epinephrine on phosphofructokinase and pyruvate kinase. *Mayo Clin Proc.*, 51, 624-631.
3. Becci, P.J., Thompson, H.J., Grubbs, C.J., Squire, R.A., Brown, C.C., Sporn, M.B., and Moon, R.C. (1978) Inhibitory effect of 13-cis-retinoic acid on urinary bladder carcinogenesis induced in C57BL/6 mice by N-butyl-N-(4-hydroxybutyl)-nitrosamine. *Cancer Res*, 38, 4463-4466.
4. Becci, P.J., Thompson, H.J., Grubbs, C.J., Brown, C.C., and Moon, R.C. (1979) Effect of delay in administration of 13-cis-retinoic acid on the inhibition of urinary bladder carcinogenesis in the rat. *Cancer Res*, 39, 3141-3144.
5. Becci, P.J., Thompson, H.J., Grubbs, C.J., and Moon, R.C. (1979) A quantitative dosing schedule for the induction of transitional cell carcinomas in female F344 rats with the use of N-butyl-N-(4-hydroxybutyl)nitrosamine. *J Natl. Cancer Inst.*, 62, 187-191.

6. Grubbs,C.J., Moon,R.C., Norikane,K., Thompson,H.J., and Becci,P.J. (1979) 1-methyl-1-nitrosourea induction of cancer in a localized area of the Syrian golden hamster trachea. *Prog.Exp.Tumor Res*, 24, 345-355.
7. Moon,R.C., Thompson,H.J., Becci,P.J., Grubbs,C.J., Gander,R.J., Newton,D.L., Smith,J.M., Phillips,S.L., Henderson,W.R., Mullen,L.T., Brown,C.C., and Sporn,M.B. (1979) N-(4-Hydroxyphenyl)retinamide, a new retinoid for prevention of breast cancer in the rat. *Cancer Res*, 39, 1339-1346.
8. Thompson,H.J., Becci,P.J., Brown,C.C., and Moon,R.C. (1979) Effect of the duration of retinyl acetate feeding on inhibition of 1-methyl-1-nitrosourea-induced mammary carcinogenesis in the rat. *Cancer Res*, 39, 3977-3980.
9. Thompson,H.J. and Becci,P.J. (1979) Effect of graded dietary levels of selenium on tracheal carcinomas induced by 1-methyl-1-nitrosourea. *Cancer Lett.*, 7, 215-219.
10. Becci,P.J., Thompson,H.J., Grubbs,C.J., and Moon,R.C. (1980) Histogenesis and dose dependence of N-methyl-N-nitrosourea-induced carcinoma in a localized area of the hamster trachea. *J Natl.Cancer Inst.*, 64, 1135-1140.
11. Thompson,H.J. and Becci,P.J. (1980) Selenium inhibition of N-methyl-N-nitrosourea-induced mammary carcinogenesis in the rat. *J Natl.Cancer Inst.*, 65, 1299-1301.
12. Thompson,H.J., Becci,P.J., Moon,R.C., Sporn,M.B., Newton,D.L., Brown,C.C., Nurrenbach,A., and Paust,J. (1980) Inhibition of 1-methyl-1-nitrosourea-induced mammary carcinogenesis in the rat by the retinoid axerophthene. *Arzneimittelforschung.*, 30, 1127-1129.
13. Becci,P.J., Thompson,H.J., Strum,J.M., Brown,C.C., Sporn,M.B., and Moon,R.C. (1981) N-butyl-N-(4-hydroxybutyl)nitrosamine-induced urinary bladder cancer in C57BL/6 X DBA/2 F1 mice as a useful model for study of chemoprevention of cancer with retinoids. *Cancer Res*, 41, 927-932.
14. Grubbs,C.J., Becci,P.J., Thompson,H.J., and Moon,R.C. (1981) Carcinogenicity of N-methyl-N-nitrosourea and N-ethyl-N-nitrosourea when applied to a localized area of the hamster trachea. *J Natl.Cancer Inst.*, 66, 961-965.
15. Thompson,H.J., Meeker,L.D., and Becci,P.J. (1981) Effect of combined selenium and retinyl acetate treatment on mammary carcinogenesis. *Cancer Res*, 41, 1413-1416.
16. Thompson,H.J., Becci,P.J., Grubbs,C.J., Shealy,Y.F., Stanek,E.J., Brown,C.C., Sporn,M.B., and Moon,R.C. (1981) Inhibition of urinary bladder cancer by N-(ethyl)-all-trans-retinamide and N-(2-hydroxyethyl)-all-trans-retinamide in rats and mice. *Cancer Res*, 41, 933-936.
17. Thompson,H.J., Meeker,L.D., Becci,P.J., and Kokoska,S. (1982) Effect of short-term feeding of sodium selenite on 7,12-dimethylbenz(a)anthracene-induced mammary carcinogenesis in the rat. *Cancer Res*, 42, 4954-4958.
18. Thompson,H.J., Meeker,L.D., Tagliaferro,A.R., and Becci,P.J. (1982) Effect of retinyl acetate on the occurrence of ovarian hormone-responsive and -nonresponsive mammary cancers in the rat. *Cancer Res*, 42, 903-905.
19. Thompson,H.J. and Meeker,L.D. (1983) Induction of mammary gland carcinomas by the subcutaneous injection of 1-methyl-1-nitrosourea. *Cancer Res*, 43, 1628-1629.
20. Minocha,R., Thompson,H.J., Meeker,L.D., and Herbst,E.J. (1984) Isolation of rat mammary epithelial cells for polyamine analysis. *Biochem J*, 223, 929-932.
21. Thompson,H.J., Herbst,E.J., Meeker,L.D., Minocha,R., Ronan,A.M., and Fite,R. (1984) Effect of D,L-alpha-difluoromethylornithine on murine mammary carcinogenesis. *Carcinogenesis*, 5, 1649-1651.
22. Thompson,H.J., Meeker,L.D., and Kokoska,S. (1984) Effect of an inorganic and organic form of dietary selenium on the promotional stage of mammary carcinogenesis in the rat. *Cancer Res*, 44, 2803-2806.
23. Thompson,H.J., Chasteen,N.D., and Meeker,L.D. (1984) Dietary vanadyl(IV) sulfate inhibits chemically-induced mammary carcinogenesis. *Carcinogenesis*, 5, 849-851.
24. Meeker,L.D. and Thompson,H.J. (1985) A multi-path theory of chemical carcinogenesis in the rat mammary gland. *Prog.Clin Biol.Res*, 172A, 379-388.

25. Thompson,H.J., Meeker,L.D., Herbst,E.J., Ronan,A.M., and Minocha,R. (1985) Effect of concentration of D,L-2-difluoromethylornithine on murine mammary carcinogenesis. *Cancer Res*, 45, 1170-1173.
26. Thompson,H.J., Meeker,L.D., Tagliaferro,A.R., and Roberts,J.S. (1985) Effect of energy intake on the promotion of mammary carcinogenesis by dietary fat. *Nutr Cancer*, 7, 37-41.
27. Chasteen,N.D., Lord,E.M., Thompson,H.J., and Grady,J.K. (1986) Vanadium complexes of transferrin and ferritin in the rat. *Biochim.Biophys.Acta*, 884, 84-92.
28. Costello,H.E., Kalinowski,M., and Thompson,H.J. (1986) Dietary selenium intake of preschool children. *J Am Diet.Assoc.*, 86, 1576-1577.
29. Thompson,H.J. and Ronan,A.M. (1986) Effect of D,L-2-difluoromethylornithine and endocrine manipulation on the induction of mammary carcinogenesis by 1-methyl-1-nitrosourea. *Carcinogenesis*, 7, 2003-2006.
30. Thompson,H.J., Herbst,E.J., and Meeker,L.D. (1986) Chemoprevention of mammary carcinogenesis: a comparative review of the efficacy of a polyamine antimetabolite, retinoids, and selenium. *J Natl.Cancer Inst.*, 77, 595-598.
31. Thompson,H.J., Ronan,A.M., Ritacco,K.A., and Meeker,L.D. (1986) Effect of tamoxifen and D,L-2-difluoromethylornithine on the growth, ornithine decarboxylase activity and polyamine content of mammary carcinomas induced by 1-methyl-1-nitrosourea. *Carcinogenesis*, 7, 837-840.
32. Thompson,H.J., Ronan,A.M., Ritacco,K.A., Tagliaferro,A.R., and Meeker,L.D. (1988) Effect of exercise on the induction of mammary carcinogenesis. *Cancer Res*, 48, 2720-2723.
33. Ip,C. and Thompson,H.J. (1989) New approaches to cancer chemoprevention with difluoromethylornithine and selenite. *J Natl.Cancer Inst.*, 81, 839-843.
34. Thompson,H.J., Ronan,A.M., Ritacco,K.A., and Tagliaferro,A.R. (1989) Effect of type and amount of dietary fat on the enhancement of rat mammary tumorigenesis by exercise. *Cancer Res*, 49, 1904-1908.
35. Thompson,H.J., Ip,C., and Ganther,H.E. (1991) Changes in ornithine decarboxylase activity and polyamine levels in response to eight different forms of selenium. *J Inorg.Biochem*, 44, 283-292.
36. Thompson,H.J. (1991) Effect of deficiencies of selenium and vitamin E alone or in combination on the induction of mammary carcinogenesis by 1-methyl-1-nitrosourea. *Carcinogenesis*, 12, 2175-2179.
37. Thompson,H.J. and Clement,I.P. (1991) Temporal changes in tissue glutathione in response to chemical form, dose, and duration of selenium treatment. Relevance to cancer chemoprevention by selenium. *Biol.Trace Elem.Res*, 30, 163-173.
38. Thompson,H.J. and Adlakha,H. (1991) Dose-responsive induction of mammary gland carcinomas by the intraperitoneal injection of 1-methyl-1-nitrosourea. *Cancer Res*, 51 , 3411-3415.
39. Thompson,H.J., Kennedy,K., Witt,M., and Juzefyk,J. (1991) Effect of dietary iron deficiency or excess on the induction of mammary carcinogenesis by 1-methyl-1-nitrosourea. *Carcinogenesis*, 12, 111-114.
40. Thompson,H.J., Strange,R., and Schedin,P.J. (1992) Apoptosis in the genesis and prevention of cancer. *Cancer Epidemiol.Biomarkers Prev.*, 1, 597-602.
41. Thompson,H.J., Adlakha,H., and Singh,M. (1992) Effect of carcinogen dose and age at administration on induction of mammary carcinogenesis by 1-methyl-1-nitrosourea. *Carcinogenesis*, 13, 1535-1539.
42. Thompson,H.J. (1992) Effect of treadmill exercise intensity on hepatic glutathione content and its relevance to mammary tumorigenesis. *J Sports Med.Phys.Fitness*, 32 , 59-63.
43. Thompson,H.J. (1992) Effect of amount and type of exercise on experimentally induced breast cancer. *Adv.Exp.Med.Biol.*, 322, 61-71.

44. Wilson,A.C., Thompson,H.J., Schedin,P.J., Gibson,N.W., and Ganther,H.E. (1992) Effect of methylated forms of selenium on cell viability and the induction of DNA strand breakage. *Biochem Pharmacol.*, 43, 1137-1141.
45. Jiang,C., Lu,J., Garcia,G., and Thompson,H.J. (1993) Spontaneous nucleosomal DNA fragmentation in murine leukemic L1210 cells. *Biochem Biophys.Res Commun.*, 194, 836-841.
46. Kaeck,M.R., Briggs,S., and Thompson,H.J. (1993) Alkaline elution analysis of DNA fragmentation induced during apoptosis. *Anal.Biochem*, 208, 393-396.
47. Kantorowitz,D.A., Thompson,H.J., and Furmanski,P. (1993) Effect of conjoint administration of tamoxifen and high-dose radiation on the development of mammary carcinoma. *Int.J Radiat. Oncol.Biol.Phys.*, 26, 89-94.
48. Thompson,H.J., Mallon,B.S., Litherland,G.J., and Rumsby,M.G. (1993) Staurosporine and its derivative RO31-8220, both inhibitors of protein kinase C, have different effects on C6 glioma cell morphology. *Biochem Soc.Trans.*, 21, 381S.
49. Thompson,H.J. (1993) Diet, nutrition, and cancer: development of hypotheses and their evaluation in animal studies. *Cancer Res*, 53, 2442s-2445s.
50. Haegele,A.D., Briggs,S.P., and Thompson,H.J. (1994) Antioxidant status and dietary lipid unsaturation modulate oxidative DNA damage. *Free Radic.Biol.Med.*, 16, 111-115.
51. Ip,C., Thompson,H., and Ganther,H. (1994) Activity of triphenylselenonium chloride in mammary cancer prevention. *Carcinogenesis*, 15, 2879-2882.
52. Ip,C., Scimeca,J.A., and Thompson,H.J. (1994) Conjugated linoleic acid. A powerful anticarcinogen from animal fat sources. *Cancer*, 74, 1050-1054.
53. Ip,C., Singh,M., Thompson,H.J., and Scimeca,J.A. (1994) Conjugated linoleic acid suppresses mammary carcinogenesis and proliferative activity of the mammary gland in the rat. *Cancer Res*, 54, 1212-1215.
54. Ip,C., el Bayoumy,K., Upadhyaya,P., Ganther,H., Vadhanavikit,S., and Thompson,H. (1994) Comparative effect of inorganic and organic selenocyanate derivatives in mammary cancer chemoprevention. *Carcinogenesis*, 15, 187-192.
55. Lu,J., Kaeck,M., Jiang,C., Wilson,A.C., and Thompson,H.J. (1994) Selenite induction of DNA strand breaks and apoptosis in mouse leukemic L1210 cells. *Biochem Pharmacol.*, 47, 1531-1535.
56. Scimeca,J.A., Thompson,H.J., and Ip,C. (1994) Effect of conjugated linoleic acid on carcinogenesis. *Adv.Exp.Med.Biol.*, 364, 59-65.
57. Singh,M., Lu,J., Briggs,S.P., McGinley,J.N., Haegele,A.D., and Thompson,H.J. (1994) Effect of excess dietary iron on the promotion stage of 1-methyl-1-nitrosourea-induced mammary carcinogenesis: pathogenetic characteristics and distribution of iron. *Carcinogenesis*, 15, 1567-1570.
58. Thompson,H.J., Wilson,A., Lu,J., Singh,M., Jiang,C., Upadhyaya,P., el Bayoumy,K., and Ip,C. (1994) Comparison of the effects of an organic and an inorganic form of selenium on a mammary carcinoma cell line. *Carcinogenesis*, 15, 183-186.
59. Thompson,H.J. (1994) Effect of exercise intensity and duration on the induction of mammary carcinogenesis. *Cancer Res*, 54, 1960s-1963s.
60. Ip,C., Scimeca,J.A., and Thompson,H. (1995) Effect of timing and duration of dietary conjugated linoleic acid on mammary cancer prevention. *Nutr Cancer*, 24, 241-247.
61. Kantorowitz,D.A., Thompson,H.J., and Furmanski,P. (1995) Effect of high-dose, fractionated local irradiation on MNU-induced carcinogenesis in the rat mammary gland. *Carcinogenesis*, 16, 649-653.
62. Lu,J., Jiang,C., Kaeck,M., Ganther,H., Vadhanavikit,S., Ip,C., and Thompson,H. (1995) Dissociation of the genotoxic and growth inhibitory effects of selenium. *Biochem Pharmacol.*, 50, 213-219.
63. Lu,J., Jiang,C., Kaeck,M., Ganther,H., Ip,C., and Thompson,H. (1995) Cellular and metabolic effects of triphenylselenonium chloride in a mammary cell culture model. *Carcinogenesis*, 16, 513-517.

64. Lu,J., Jiang,C., Fontaine,S., and Thompson,H.J. (1995) ras may mediate mammary cancer promotion by high fat. *Nutr Cancer*, 23, 283-290.
65. Schedin,P.J., Strange,R., Singh,M., Kaeck,M.R., Fontaine,S.C., and Thompson,H.J. (1995) Treatment with chemopreventive agents, difluoromethylornithine and retinyl acetate, results in altered mammary extracellular matrix. *Carcinogenesis*, 16, 1787-1794.
66. Thompson,H.J., McGinley,J.N., Rothhammer,K., and Singh,M. (1995) Rapid induction of mammary intraductal proliferations, ductal carcinoma in situ and carcinomas by the injection of sexually immature female rats with 1-methyl-1-nitrosourea. *Carcinogenesis*, 16, 2407-2411.
67. Thompson,H.J., Briggs,S., Paranka,N.S., Piazza,G.A., Brendel,K., Gross,P.H., Sperl,G.J., Pamukcu,R., and Ahnen,D.J. (1995) Inhibition of mammary carcinogenesis in rats by sulfone metabolite of sulindac. *J Natl.Cancer Inst.*, 87, 1259-1260.
68. Thompson,H.J., Westerlind,K.C., Snedden,J., Briggs,S., and Singh,M. (1995) Exercise intensity dependent inhibition of 1-methyl-1-nitrosourea induced mammary carcinogenesis in female F-344 rats. *Carcinogenesis*, 16, 1783-1786.
69. Thompson,H.J., Westerlind,K.C., Snedden,J.R., Briggs,S., and Singh,M. (1995) Inhibition of mammary carcinogenesis by treadmill exercise. *J Natl.Cancer Inst.*, 87, 453-455.
70. Ip,C., Lisk,D.J., and Thompson,H.J. (1996) Selenium-enriched garlic inhibits the early stage but not the late stage of mammary carcinogenesis. *Carcinogenesis*, 17, 1979-1982.
71. Ip,C., Briggs,S.P., Haegele,A.D., Thompson,H.J., Storkson,J., and Scimeca,J.A. (1996) The efficacy of conjugated linoleic acid in mammary cancer prevention is independent of the level or type of fat in the diet. *Carcinogenesis*, 17, 1045-1050.
72. Lu,J., Pei,H., Ip,C., Lisk,D.J., Ganther,H., and Thompson,H.J. (1996) Effect on an aqueous extract of selenium-enriched garlic on in vitro markers and in vivo efficacy in cancer prevention. *Carcinogenesis*, 17, 1903-1907.
73. Lu,J., Kaeck,M.R., Jiang,C., Garcia,G., and Thompson,H.J. (1996) A filter elution assay for the simultaneous detection of DNA double and single strand breaks. *Anal.Biochem*, 235, 227-233.
74. Tagliaferro,A.R., Ronan,A.M., Meeker,L.D., Thompson,H.J., Scott,A.L., and Sinha,D. (1996) Cyclic food restriction alters substrate utilization and abolishes protection from mammary carcinogenesis female rats. *J Nutr*, 126, 1398-1405.
75. Gillette,C.A., Zhu,Z., Westerlind,K.C., Melby,C.L., Wolfe,P., and Thompson,H.J. (1997) Energy availability and mammary carcinogenesis: effects of calorie restriction and exercise. *Carcinogenesis*, 18, 1183-1188.
76. Ip,C., Lisk,D.J., Ganther,H., and Thompson,H.J. (1997) Triphenylselenonium and diphenylselenide in cancer chemoprevention: comparative studies of anticarcinogenic efficacy, tissue selenium levels and excretion profile. *Anticancer Res*, 17, 3195-3199.
77. Ip,C., Jiang,C., Thompson,H.J., and Scimeca,J.A. (1997) Retention of conjugated linoleic acid in the mammary gland is associated with tumor inhibition during the post-initiation phase of carcinogenesis. *Carcinogenesis*, 18, 755-759.
78. Kaeck,M., Lu,J., Strange,R., Ip,C., Ganther,H.E., and Thompson,H.J. (1997) Differential induction of growth arrest inducible genes by selenium compounds. *Biochem Pharmacol.*, 53, 921-926.
79. Lu,J., Pei,H., Kaeck,M., and Thompson,H.J. (1997) Gene expression changes associated with chemically induced rat mammary carcinogenesis. *Mol.Carcinog.*, 20, 204-215.
80. Tagliaferro,A.R., Ronan,A.M., Meeker,L.D., Thompson,H.J., and Scott,A.L. (1997) Cyclic food restriction, insulin and mammary cell proliferation in the rat. *Carcinogenesis*, 18, 2271-2276.
81. Thompson,H., Zhu,Z., Banni,S., Darcy,K., Loftus,T., and Ip,C. (1997) Morphological and biochemical status of the mammary gland as influenced by conjugated linoleic acid: implication for a reduction in mammary cancer risk. *Cancer Res*, 57, 5067-5072.
82. Thompson,H.J. (1997) Effects of physical activity and exercise on experimentally-induced mammary carcinogenesis. *Breast Cancer Res Treat.*, 46, 135-141.

83. Thompson,H.J., Jiang,C., Lu,J., Mehta,R.G., Piazza,G.A., Paranka,N.S., Pamukcu,R., and Ahnen,D.J. (1997) Sulfone metabolite of sulindac inhibits mammary carcinogenesis. *Cancer Res*, 57, 267-271.
84. Varon,D., Jiang,C., Hedican,C., Dome,J.S., Umbricht,C.B., Carey,L.A., Thompson,H.J., and Sukumar,S. (1997) Telomerase activity in the normal and neoplastic rat mammary gland. *Cancer Res*, 57, 5605-5609.
85. Zhu,Z., Haegele,A.D., and Thompson,H.J. (1997) Effect of caloric restriction on pre-malignant and malignant stages of mammary carcinogenesis. *Carcinogenesis*, 18, 1007-1012.
86. Dahiya,R., Lee,C., Zhu,Z., and Thompson,H.J. (1998) Microsatellite instability in an animal model of mammary carcinogenesis. *Int.J Oncol.*, 13, 23-28.
87. Haegele,A.D., Wolfe,P., and Thompson,H.J. (1998) X-radiation induces 8-hydroxy-2'-deoxyguanosine formation in vivo in rat mammary gland DNA. *Carcinogenesis*, 19, 1319-1321.
88. Ip,C., Thompson,H.J., and Ganther,H.E. (1998) Cytostasis and cancer chemoprevention: investigating the action of triphenylselenonium chloride in in vivo models of mammary carcinogenesis. *Anticancer Res*, 18, 9-12.
89. Lu,J., Jiang,C., Mitrenga,T., Cutter,G., and Thompson,H.J. (1998) Pathogenic characterization of 1-methyl-1-nitrosourea-induced mammary carcinomas in the rat. *Carcinogenesis*, 19, 223-227.
90. Thompson,H.J., McGinley,J.N., Wolfe,P., Singh,M., Steele,V.E., and Kelloff,G.J. (1998) Temporal sequence of mammary intraductal proliferations, ductal carcinomas in situ and adenocarcinomas induced by 1-methyl-1-nitrosourea in rats. *Carcinogenesis*, 19, 2181-2185.
91. Thompson,H.J., McGinley,J., Rothhammer,K., and Singh,M. (1998) Ovarian hormone dependence of pre-malignant and malignant mammary gland lesions induced in pre-pubertal rats by 1-methyl-1-nitrosourea. *Carcinogenesis*, 19, 383-386.
92. Zhu,Z., Jiang,W., and Thompson,H.J. (1998) Effect of corticosterone administration on mammary gland development and p27 expression and their relationship to the effects of energy restriction on mammary carcinogenesis. *Carcinogenesis*, 19, 2101-2106.
93. Banni,S., Angioni,E., Casu,V., Melis,M.P., Carta,G., Corongiu,F.P., Thompson,H., and Ip,C. (1999) Decrease in linoleic acid metabolites as a potential mechanism in cancer risk reduction by conjugated linoleic acid. *Carcinogenesis*, 20, 1019-1024.
94. Ip,C., Zhu,Z., Thompson,H.J., Lisk,D., and Ganther,H.E. (1999) Chemoprevention of mammary cancer with Se-allylselenocysteine and other selenoamino acids in the rat. *Anticancer Res*, 19, 2875-2880.
95. Ip,C., Banni,S., Angioni,E., Carta,G., McGinley,J., Thompson,H.J., Barbano,D., and Bauman,D. (1999) Conjugated linoleic acid-enriched butter fat alters mammary gland morphogenesis and reduces cancer risk in rats. *J Nutr*, 129, 2135-2142.
96. Sinha,R., Kiley,S.C., Lu,J.X., Thompson,H.J., Moraes,R., Jaken,S., and Medina,D. (1999) Effects of methylselenocysteine on PKC activity, cdk2 phosphorylation and gadd gene expression in synchronized mouse mammary epithelial tumor cells. *Cancer Lett.*, 146, 135-145.
97. Thompson,H.J., Jiang,W., and Zhu,Z. (1999) Mechanisms by which energy restriction inhibits carcinogenesis. *Adv.Exp.Med.Biol.*, 470, 77-84.
98. Thompson,H.J., Heimendinger,J., Haegele,A., Sedlacek,S.M., Gillette,C., O'Neill,C., Wolfe,P., and Conry,C. (1999) Effect of increased vegetable and fruit consumption on markers of oxidative cellular damage. *Carcinogenesis*, 20, 2261-2266.
99. Zhu,Z., Jiang,W., and Thompson,H.J. (1999) Effect of energy restriction on tissue size regulation during chemically induced mammary carcinogenesis. *Carcinogenesis*, 20, 1721-1726.
100. Zhu,Z., Jiang,W., and Thompson,H.J. (1999) Effect of energy restriction on the expression of cyclin D1 and p27 during premalignant and malignant stages of chemically induced mammary carcinogenesis. *Mol.Carcinog.*, 24, 241-245.

101. Haegele,A.D., Gillette,C., O'Neill,C., Wolfe,P., Heimendinger,J., Sedlacek,S., and Thompson,H.J. (2000) Plasma xanthophyll carotenoids correlate inversely with indices of oxidative DNA damage and lipid peroxidation. *Cancer Epidemiol.Biomarkers Prev.*, 9, 421-425.
102. Ip,C., Thompson,H.J., Zhu,Z., and Ganther,H.E. (2000) In vitro and in vivo studies of methylseleninic acid: evidence that a monomethylated selenium metabolite is critical for cancer chemoprevention. *Cancer Res*, 60, 2882-2886.
103. Ip,C., Thompson,H.J., and Ganther,H.E. (2000) Selenium modulation of cell proliferation and cell cycle biomarkers in normal and premalignant cells of the rat mammary gland. *Cancer Epidemiol.Biomarkers Prev.*, 9, 49-54.
104. McGinley,J.N., Knott,K.K., and Thompson,H.J. (2000) Effect of fixation and epitope retrieval on BrdU indices in mammary carcinomas. *J Histochem.Cytochem.*, 48, 355-362.
105. Singh,M., McGinley,J.N., and Thompson,H.J. (2000) A comparison of the histopathology of premalignant and malignant mammary gland lesions induced in sexually immature rats with those occurring in the human. *Lab Invest*, 80, 221-231.
106. Thompson,H.J., Singh,M., and McGinley,J. (2000) Classification of premalignant and malignant lesions developing in the rat mammary gland after injection of sexually immature rats with 1-methyl-1-nitrosourea. *J Mammary.Gland.Biol.Neoplasia*, 5, 201-210.
107. Zhu,Z., Jiang,W., Ganther,H.E., Ip,C., and Thompson,H.J. (2000) Activity of Se-allylselenocysteine in the presence of methionine gamma-lyase on cell growth, DNA integrity, apoptosis, and cell-cycle regulatory molecules. *Mol.Carcinog.*, 29, 191-197.
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Relevant Research Activities (Current or Recently Completed)

Energy Restriction and Mammary Carcinogenesis (NIH-R01 CA 52626), H. Thompson, P.I. The goal of this project is to determine how induction of the energy restricted state by caloric restriction inhibits the process of mammary carcinogenesis.

Mechanisms of Selenium Chemoprevention of Carcinogenesis (NIH-P01 CA 45164-12) H. Thompson, Project leader The major goal of this recently completed project was to identify effective chemopreventive forms of selenium and to determine their mechanism of action.

Selenium and Breast cancer prevention (DOD BC004026) H. Thompson, P.I. The goal of this project is to determine if selenium decreases oxidative markers for cancer risk in women at high risk for breast cancer. Effects of selenium on breast cytology derived from nipple aspirate fluid also will be determined.

Selenium and Lung Cancer Risk (R01 CA 84059) H. Thompson, P.I.

The goal of this project is determine if selenium 1) decreases cytological atypia detected in sputum , and 2) decreases oxidative markers for cancer risk in a cohort of asbestos-exposed subjects.

Diet, Oxidative DNA Damage, and Breast Cancer Prevention (DOD-DAMD-17-99-1-9062) H. Thompson, P.I.

We hypothesize that oxidative DNA base damage and/or lipid peroxidation are markers of mutation potential. Research is being conducted to measure the effect(s) of increasing fruit and vegetable intake on oxidative DNA base damage and lipid peroxidation in a population of women at clinically defined elevated risk for breast cancer, and to determine if levels of oxidative DNA base damage and/or lipid peroxidation can be reduced by increasing fruit and vegetable consumption.