



Division of Hematology
and Oncology

Starling Loving Hall
320 West Tenth Avenue
Columbus, OH 43210-1240

Office: (614) 293-7560
Secretary: (614) 293-8396
Fax: (614) 293-7525

July 8, 2004

To Whom It May Concern:

I, Steven K. Clinton, M.D., PhD., have reviewed the July 8, 2004 letter of Campbell Soup Company commenting on the petition submitted on behalf of Petitioner American Longevity, Inc. to the Food and Drug Administration on January 21, 2004 requesting approval of numerous health claims with respect to lycopene and various cancers, tomatoes and various cancers, and "lycopene-containing tomato-based foods" and various cancers. I have reviewed and agree with the analysis and conclusions set forth in the Campbell Soup Company letter.

Sincerely,

Steven K. Clinton, M.D., PhD.
Program Leader, Molecular Carcinogenesis and Chemoprevention
Clinical Director, Prostate and GU Oncology Group
The Arthur G. James Cancer Hospital and
Richard J. Solove Research Institute

The most comprehensive health sciences center in America

College of Dentistry / College of Medicine and Public Health / College of Nursing / College of Optometry /
College of Pharmacy / College of Veterinary Medicine / School of Allied Medical Professions /
The Ohio State University Hospitals / The Arthur G. James Cancer Hospital and Research Institute

Curriculum Vita

Name: Steven Kelly Clinton

Office Address:

The Ohio State University
A434A Starling-Loving Hall
320 West 10th Avenue
Columbus, Ohio 43210-1240

Phone: 614-293-7560

Page: 614-303-8527

FAX: 614-293-7525

Education:

- 1974 B.S. State University of New York at Fredonia, Fredonia, NY
(Magna Cum Laude, Biological Sciences)
- 1978 Ph.D. University of Illinois, Urbana, IL (Nutritional Sciences)
- 1984 M.D. University of Illinois, College of Medicine, Urbana, IL

Postdoctoral Training:

Research Fellowship:

- 1978-1980 Postdoctoral Fellowship, Environmental Toxicology Training Program,
University of Illinois, Urbana, IL, supported by National Institute of
Environmental Health Sciences, National Institutes of Health.

Internship and Residency:

- 1984-1985 Intern in Medicine, Department of Internal Medicine,
University of Chicago Hospitals and Clinics, Chicago, IL
- 1985-1987 Resident in Medicine, Department of Internal Medicine,
University of Chicago Hospitals and Clinics, Chicago, IL

Clinical Fellowship:

- 1988-1991 Clinical Fellow in Medical Oncology, Dana-Farber Cancer Institute,
Harvard Medical School, Boston, MA

Licensure and Certification:

1984-1987	Illinois Medical License
1985	Diplomate of the National Board of Medical Examiners
1987-1999	Massachusetts Medical License (58542)
1987	Diplomate of the American Board of Internal Medicine
1991	Diplomate of the American Board of Medical Oncology
1998-Present	Ohio Medical License (35-07-5538-C)

Hospital and Academic Appointments:

1987-1988	Visiting Scientist, USDA Human Nutrition Research Center on Aging, Boston, MA
1988-1991	Clinical Fellow in Medical Oncology, Dana-Farber Cancer Institute, Boston, MA
1988-1991	Clinical Fellow in Medicine, Brigham and Women's Hospital, Boston, MA
1988-1991	Clinical Fellow in Medicine, Harvard Medical School, Boston, MA
1992-1998	Clinical Associate, General Oncology and Genitourinary Oncology Clinics, Dana-Farber Cancer Institute, Boston, MA
1992-1998	Associate Physician, Department of Internal Medicine, Brigham and Women's Hospital, Boston, MA
1992-1998	Instructor in Medicine, Harvard Medical School, Boston, MA
1998-	Associate Professor, Division of Hematology and Oncology, Department of Internal Medicine, The Ohio State University College of Medicine, Columbus, OH
1998	Member, The Ohio State University Comprehensive Cancer Center, Columbus, OH
1998-2002	Program Leader, Cancer Prevention and Control, The Ohio State University Comprehensive Cancer Center, Columbus, OH
1999-	Director, Prostate and Genitourinary Oncology, Division of Hematology and Oncology, The James Cancer Hospital and Solove Research Institute, Columbus, OH.
1999-2002	Interim Associate Director for Population Sciences of The Ohio State University Comprehensive Cancer Center, Columbus, OH.
2001	Program Leader, Molecular Carcinogenesis and Chemoprevention, The Ohio State University Comprehensive Cancer Center, Columbus, OH
2002	Adjunct Associate Professor, Division of Urology, Department of Surgery, The Ohio State University College of Medicine, Columbus, OH
2002	Member, The Dorothy M. Davis Heart and Lung Research Institute, The Ohio State University, Columbus, OH

Awards and Honors:

1970-1974	New York State Regents Scholarships
1978	American Institute of Nutrition Graduate Student Research Award
1978	Sigma Xi Graduate Student Research Award, University of Illinois
1984	University of Illinois College of Medicine Research Award
1984	Alpha Omega Alpha, Medical Honor Society
1987	Visiting Professorship, Nutrition Emphasis Week, University of Missouri, Columbia, MO
1990-1991	Emil Frei III Fellowship in Clinical Investigation, Dana-Farber Cancer Institute, Harvard Medical School, Boston, MA
1992-1997	Preventive Oncology Academic Award, KO7, National Cancer Institute, National Institutes of Health
1995	Burroughs Wellcome Visiting Professor in Medical Sciences, University of Georgia, Athens, GA

- 1996 Suzanne Sheats Breast Cancer Research Award, Massachusetts Department of Public Health, Commonwealth of Massachusetts
- 2000 "The James Champion Award", Arthur G. James Cancer Hospital and Richard J. Solove Research Institute, Columbus, Ohio

Memberships in Professional Societies:

- 1976 American Association for the Advancement of Science (AAAS)
- 1986 American Society for Nutritional Sciences (ASNS)
- 1988 American Association for Cancer Research (AACR)
- 1993 American Society of Clinical Oncology (ASCO)
- 1993 American Society for Preventive Oncology (ASPO)
- 1994 Carotenoid and Vitamin A Research Group (CARIG)
- 1999 Molecular Epidemiology Group (MEG) of AACR

Editorial Boards and Journal Reviews (1991 to present)

Editorial Boards:

- | | |
|----------------------|---------------------------------------|
| Journal of Nutrition | 1994 - 2000 (three consecutive terms) |
| Nutrition Reviews | 1997 - 2001 |
| The Prostate Journal | 1998 - 2002 |
| Nutrition and Cancer | 1999- Present |

Ad hoc Reviewer:

- American Journal of Clinical Nutrition
- Annals of Nutrition and Metabolism
- Archives of Biochemistry and Biophysics
- Atherosclerosis
- Arteriosclerosis and Thrombosis
- Biochem. Biophys. Acta
- Biochemical Pharmacology
- Blood
- Cancer
- Cancer Research
- Cancer Epidemiology, Bio-markers and Prevention
- Cancer Letters
- Carcinogenesis
- Circulation Research
- Clinical Cancer Research
- Journal of Clinical Investigation
- Journal of Clinical Oncology
- Journal of Lipid Research
- Journal of Nutrition
- Journal of the National Cancer Institute
- Journal of Urology
- Life Sciences
- Molecular Pharmacology
- Nutrition and Cancer
- Obstetrics and Gynecology
- Pancreas
- The Prostate Journal
- The New England Journal of Medicine

Major Peer Review Activities and National Committee Assignments (1991 to present)

American Cancer Society, Illinois Division, Study group on Nutrition and Cancer, 1997-2002

National Cancer Institute, National Institutes of Health

Ad hoc Reviewer / Site Visits.

RFA's and Program Projects

Nutrition and Cancer Prevention/Chemoprevention

Comprehensive Cancer Center Site Visits

Metabolic Pathology (MEP)

Ad hoc Reviewer of Veterans Administration Research Grants

Ad hoc Reviewer of United States-Israel Bi-National Science Foundation Grants

Ad hoc Reviewer of Grants for the World Cancer Research Fund

Ad hoc Reviewer of Grants for the Scottish Health Department

Ad hoc Reviewer of Grants for the South Plains Foundation

Department of Defense Breast Cancer Research Program:

Peer review of grants and annual reports

National Live Stock and Meat Board

Peer review of research grants

National Dairy Council

Peer review of research grants

Experimental Biology (FASEB), Mini-symposium Organizer, 1991 and 1995

Nominating committee, officers for the American Institute of Nutrition, 1993

Experimental Biology (FASEB) Annual Meeting, Symposium Organizer, 1996

Search Committee for *The Journal of Nutrition* Editor, 1996-1997

Carotenoid and Vitamin A Research Group

Population and Clinical Research Steering Committee Chairman, 1997- Present

Cancer and Leukemia Group B (CALGB),

Prevention and Control Core Committee Member, 1998-1999

Cancer Control and Health Outcomes Core Committee Member, 1999-present

Prevention Subcommittee, member, 1999-present

Prevention Subcommittee, Vice Chair, 1999-2001

GU Committee, liaison, 2001 - present

Nutrition Implementation Committee, Division of Cancer Prevention,

National Cancer Institute, 1998-1999

Faculty, National Cancer Institute, Summer Curriculum in Cancer Prevention, Molecular Prevention Course, 2000-present.

American Association for Cancer Research (AACR), Program Committee for 2001 92nd Annual Meeting, Cancer Prevention and Survivorship Subcommittee.

Program Committee, American Institute for Cancer Research (AICR), 11th Annual Research Conference on Diet, Nutrition and Cancer, Washington, D.C. July 16-17, 2001.

Chairman, American Institute for Cancer Research (AICR), 11th Annual Research Conference on Diet, Nutrition and Cancer, Washington, D.C. July 16-17, 2001.

Session chairman, "Tomatoes, Lycopene, and Cancer", 13th International Carotenoid Symposium, Honolulu, Hawaii.

Program Committee, World Cancer Research Fund and American Institute for Cancer Research (AICR), for the 2002 12th Annual Research Conference on Diet, Nutrition and Cancer, Washington, D.C., July 11-12, 2002.

Session Chairman, "Energy Balance and Cancer Risk", World Cancer Research Fund and American Institute for Cancer Research (AICR), 12th Annual Research Conference on Diet, Nutrition and Cancer, Washington, D.C. July 11-12, 2002.

Co-Chairman, National Center for Complementary and Alternative Medicine, National Cancer Institute, Meeting entitled: "Free Radicals: The Pros and Cons of Antioxidants". National Cancer Institute, Bethesda, MD, June 2003

Bibliography:

1. Visek WJ, Robertson JB, Gagnon JP, Clinton SK, Ulman EA. Dried brewers grain for mature and growing dogs. *J. Animal Sci.* 43:442-452, 1976.
2. Clinton SK, Truex CR, Visek WJ. Effects of protein deficiency and excess on hepatic mixed function oxidase activity in growing and adult female rats. *Nutr. Repts. International* 16:463-470, 1977.
3. Clinton SK, Truex CR, Visek WJ. A model system for evaluating the role of dietary fiber in chemical carcinogenesis. *Biochem. Pharm.* 27:1393-1396, 1978.
4. Visek WJ, Clinton SK, Truex CR. Nutrition and experimental carcinogenesis. *The Cornell Veterinarian* 68:1-39, 1978.
5. Clinton SK, Truex CR, Visek WJ. Dietary protein, aryl hydrocarbon hydroxylase, and chemical carcinogenesis. *J. Nutr.* 109:55-62, 1979.
6. Edes TE, Clinton SK, Truex CR, Visek WJ. Intestinal and hepatic mixed function oxidase activity in rats fed methionine and cysteine-free diets. *Proc. Soc. Expt. Biol. Med.* 162:70-74, 1979.
7. Clinton SK, Destree R, Anderson DB, Truex CR, Imrey PB, Visek WJ. 1,2-Dimethylhydrazine-induced colon cancer in rats fed beef or vegetable protein. *Nutr. Repts. International* 20:335-342, 1979.
8. Clinton SK, Truex CR, Imrey PB, Visek WJ. Dietary protein and mixed function oxidase activity. In: MJ Coon, ed. Microsomes, Drug Oxidations and Chemical Carcinogenesis, Academic Press, pp 1120-1132, 1980.
9. Visek WJ, Clinton SK. Dietary fat and breast cancer. In: EG Perkins and WJ Visek, eds., Dietary Fats and Health, American Oil Chemists Society, pp 721-740, 1983.
10. Hevia P, Truex CR, Imrey PB, Clinton SK, Mangian HJ, Visek WJ. Plasma amino acids and excretion of protein end products by mice fed 10 or 40% soybean protein diets with and without dietary 2-acetyl-aminofluorene or N,N-dinitropiperazine. *J. Nutr.* 114:555-564, 1984.
11. Clinton SK, Imrey PB, Alster JM, Simon J, Truex CR, Visek WJ. The combined effects of dietary protein and fat on 7,12-dimethyl-benzanthracene-induced breast cancer in rats. *J. Nutr.* 114:1213-1223, 1984.
12. Clinton SK, Mulloy AL, Visek WJ. Effects of dietary lipid saturation on prolactin secretion, carcinogen metabolism and mammary carcinogenesis in rats. *J. Nutr.* 114:1630-1639, 1984.
13. Clinton SK, Li P-SS, Visek WJ. The combined effects of dietary protein and fat on prolactin in female rats. *J. Nutr.* 115:311-318, 1985.
14. Anderson PA, Alster JM, Clinton SK, Imrey PB, Mangian HJ, Truex CR, Visek WJ. Plasma amino acids and excretion of protein end products by mice fed 10 or 40% soybean protein diets with or without dietary benzo(a)pyrene or 1,2-dimethylhydrazine. *J. Nutr.* 115:1515-1527, 1985.
15. Clinton SK, Visek WJ. Nutrition and experimental breast cancer: the effects of dietary fat and protein. In: JW Finley and DESchwass, eds., Xenobiotic Metabolism--Nutritional Effects, American Chemical Society Symposium Series, number 277, Chapter 24, pp. 309-325, 1985.

16. Visek WJ, Clinton SK. Dietary protein and the carcinogenesis, metabolism, and toxicity of 1,2-dimethylhydrazine(DMH). In: JW Finley and DE Schwass, eds., Xenobiotic Metabolism--Nutritional Effects, American Chemical Society Symposium Series, number 277, Chapter 23, pp. 297-307, 1985.
17. Clinton SK, Alster JM, Imrey PB, Nandkumar S, Truex CR, Visek WJ. The effects of dietary protein, fat, and energy intake during an initiation phase study of 7,12-dimethylbenz(a)anthracene-induced breast cancer in rats. *J. Nutr.* 116:2290-2302, 1986.
18. Clinton SK, Visek WJ. The macronutrients in experimental carcinogenesis of the breast, colon, and pancreas. In: C. Ip, A. Rogers, D. Birt, C. Mettlin, eds., Dietary Fat and Cancer, Alan R. Liss, Inc, pp. 377-401, 1986.
19. Olson LM, Clinton SK, Everitt JI, Johnson PV, Visek WJ. Lymphocyte transformation, cell-mediated cytotoxicity and their relationship to dietary fat enhanced mammary tumorigenesis in C3H/OUJ mice. *J. Nutr.* 1987; 117:955-963.
20. Michelassi F, Dieterich M, Montag A, Bostwick D, Clinton S, Visek W, Block G. Increased levels of *ras* oncogene protein product in carcinogen-induced rat colorectal adenocarcinomas. *Surgical Forum* 1987; 28:400-402.
21. Clinton SK, Bostwick DG, Olson LM, Mangian HJ, Visek WJ. Effects of ammonium acetate and sodium cholate on N-methyl-N-nitro-N-nitrosoguanidine-induced colon carcinogenesis of rats. *Cancer Res.* 48:3035-3039, 1988.
22. Clinton SK, Palmer SS, Spriggs CE, Visek WJ. The growth of Dunning transplantable prostate adenocarcinomas in rats fed diets varying in fat content. *J. Nutr.* 118:908-914, 1988.
23. Clinton SK, Alster JM, Imrey PB, Simon J, Visek WJ. The combined effects of dietary protein and fat intake during the promotion phase of 7,12-dimethylbenz(a)anthracene-induced breast cancer in rats. *J. Nutr.* 118:1577-1585, 1988.
24. Clinton SK, Visek WJ. Wheat bran and the induction of intestinal benzo(a)pyrene-hydroxylase by dietary benzo(a)pyrene. *J. Nutr.* 119:395-402, 1989.
25. Ringler GE, Senekjian EK, Smith FL, Little AG, Clinton SK, Stephens JK. A case report of three synchronous stage I malignant neoplasms. *Gyn. Oncol.* 33:116-120, 1989.
26. Clinton SK, Visek WJ. Hepatic and intestinal drug-metabolizing enzymes and the tissue distribution and excretion of ¹⁴C-7,12-dimethylbenz(a)anthracene in rats fed diets varying in fat concentration. *Pharmacology* 39:89-97, 1989.
27. Clinton SK, Fleet JC, Loppnow H, Salomon RN, Clark BD, Cannon JG, Shaw AR, Dinarello CA, Libby P. Interleukin-1 gene expression in rabbit vascular tissue *in vivo*. *Am. J. Path.* 138:1005-1014, 1991.
28. Visek WJ, Clinton SK, Imrey PB, Thursh DR, Truex CR, Alster JM, Anderson PA, Mabry F, Nandkumar S, Simon J. Dietary protein and chronic toxicity of 1,2-dimethylhydrazine fed to mice. *J. Toxicology and Envir. Health* 32:383-413, 1991.
29. Visek WJ, Clinton SK. Dietary protein and cancer. In: Alfin-Slater R, Kritchevsky DII, eds., Human Nutrition, vol 7, Cancer and Nutrition, Plenum, N.Y, Chapter 5, pp 103-126, 1991.
30. Clinton SK. Dietary protein and carcinogenesis. In: I. Rowland, ed., Nutrition, Toxicology, and Cancer, CRC Press, Boca Raton, FL, Chapter 15, pp 455-480, 1991.

31. Fleet JC, Clinton SK, Salomon RN, Loppnow H, Libby P. Atherogenic diets increase endotoxin-stimulated cytokine gene expression in rabbit aorta. *J. Nutr.* 122:294-305, 1992.
32. Clinton SK, Imrey PB, Mangian HJ, Nandkumar S, Visek WJ. The combined effects of dietary fat, protein, and energy intake on azoxymethane-induced colon and renal carcinogenesis. *Cancer Res.* 52:857-865, 1992.
33. Clinton SK, Underwood R, Sherman ML, Kufe DK, Libby P. Macrophage-colony stimulation factor gene expression in vascular cells and in experimental and human atherosclerosis. *Am J Path* 140:301-316, 1992.
34. Libby P, Fleet JC, Salomon RN, Li H, Loppnow H, Clinton SK. Possible roles of cytokines in atherogenesis. In: O. Stein, S. Eisenberg, Y. Stein, eds., Atherosclerosis IX. R & L Creative Comm., Ltd., Tel Aviv, Israel, pp 339-350, 1992.
35. Libby P, Clinton SK. Cytokines as mediators of vascular pathology. *Nouv. Rev. Fr. Hematol.* 34 [Suppl]: s47-s53, 1992.
36. Clinton SK. Dietary protein and the origins of cancer. In: Liepa G, ed., Dietary Proteins: How They Alleviate Disease and Promote Better Health. American Oil Chemists Society, Champaign IL, pp 84-122, 1992.
37. Libby P, Schwartz D, Brogi E, Tanaka H, Clinton SK. A cascade model for restenosis. A special case of atherosclerosis progression. *Circulation* 86[suppl III]:47-52, 1992.
38. Clinton SK and Libby P. Cytokines and growth factors in atherogenesis. *Arch. Path. Lab. Med.* 116:1292-1300, 1992.
39. Hsu H-C, Yang K, Kharbanda S, Clinton S, Datta R, Stone R. All-trans retinoic acid induces monocyte growth factor receptor (c-fms) gene expression in HL-60 leukemic cells. *Leukemia* 7:458-462, 1993.
40. Tanaka H, Sukhova GK, Swanson SJ, Clinton SK, Ganz P, Cybulsky MI, Libby P. Sustained activation of vascular cells and leukocytes in rabbit aorta after balloon injury. *Circulation* 88:1788-1803, 1993.
41. Brogi E, Winkles JA, Underwood R, Clinton SK, Alberts GF, Libby P. Distinct patterns of expression of fibroblast growth factors and their receptors in human atheroma and non-atherosclerotic arteries: Association of acidic FGF with plaque microvessels and macrophages. *J. Clin. Invest.* 92:2408-2418, 1993.
42. Clinton SK. Nutrition in the etiology and prevention of cancer. In: Holland JF, Frei III E, Bast Jr RC, Kufe DW, Morton DL, Wechselbaum RR, eds., Cancer Medicine, third edition, Lea and Febiger, Philadelphia, PA, pp370-395, 1993.
43. Libby PL and Clinton SK. The macrophage in atherogenesis. *Current Opinion in Lipidology.* 4:355-363, 1993.
44. Schaub RG, Bree MP, Hayes LL, Rudd MA, Rabbani L, Loscalzo J, Clinton SK. Recombinant human macrophage colony stimulating factor reduces plasma cholesterol and carrageenan granuloma foam cell formation in Watanabe Heritable Hyperlipidemic rabbits. *Arterioscler Throm.* 14:70-76, 1994.

45. De Caterina R, Cybulsky MI, Clinton SK, Gimbrone Jr MA, Libby P. The omega-3 fatty acid docosahexaenoate reduces cytokine-induced expression of pro-atherogenic and pro-inflammatory proteins in human endothelial cells. *Arterioscler. Throm.* 14:1829-1836, 1994.
46. Clinton SK. Nutrition and Cancer: Contributions from the Laboratory of Willard J. Visek., pp: 41-50. In: *Proceedings from a Symposium Honoring Willard J. Visek. From ammonia to cancer and gene expression. Publication 86. Agricultural Experiment Station, University of Illinois, 1994.*
47. Clinton SK, Li SP, Mulloy AL, Imrey PB, Nandkumar S, Visek WJ. The combined effects of dietary fat and estrogen on survival, 7,12-dimethylbenz(a)anthracene-induced breast cancer and prolactin metabolism in rats. *J. Nutr.* 125:1192-1204, 1995.
48. Lee E, Grodzinsky AJ, Libby P, Clinton SK, Lark MW, Lee RT. Human vascular smooth muscle cell-monocyte interactions and metalloproteinase secretion. *Arterioscler. Throm. and Vascular Biology* 15:2284-2289, 1995.
49. Lipton BA, Parthasarathy S, Ord VA, Clinton SK, Libby P, Rosenfeld ME. Components of the protein fraction of oxidized low-density lipoprotein stimulate interleukin-1 production by rabbit arterial macrophage-derived foam cells. *J. Lipid Res.* 36:2232-2242, 1995.
50. Clinton SK, Emenhiser C, Schwartz SJ, Bostwick DG, Williams AW, Moore BJ, Erdman, JW. *cis-trans* Lycopene isomers, carotenoids, and retinol in the human prostate. *Cancer Epidemiol., Biomarkers, and Prevention.* 5:823-833, 1996.
51. Kranzhöfer R, Clinton SK, Ishii K, Coughlin SR, Fenton JW, Libby P. Thrombin potently stimulates cytokine production in human vascular smooth muscle cells but not in mononuclear phagocytes. *Circulation Res.* 79:286-294, 1996.
52. Libby P, Geng YJ, Aikawa M, Schoenbeck U, Clinton SK, Sukhova GK, Lee RT. Macrophages and atherosclerotic plaque stability. *Current Opinion in Lipidology* 7:330-335, 1996.
53. Clinton SK and Giovannucci, E. Nutrition in the etiology and prevention of cancer. In: Holland JF, Frei III E, Bast Jr RC, Kufe DW, Morton DL, Wechselbaum RR, eds. Cancer Medicine, fourth edition, Lea and Febiger, Philadelphia, PA, pp. 465-494, 1997.
54. Clinton SK, Mulloy AL, Li SP, Visek WJ. The effects of dietary protein, fat and energy intake on prostate tumor growth, prolactin secretion and metabolism, and prostatic prolactin receptors. *J. Nutr.* 127:225-237, 1997.
55. Clinton SK. Diet and nutrition in prostate cancer prevention and therapy. In: Kantoff, P., Wishnow, K, and Loughlin, K. eds. Guide to Prostate Cancer, pp. 246-270, Blackwell Science, Cambridge, MA, 1997.
56. D'Amico A, Wishnow K, Clinton SK. Brachytherapy and cryotherapy for prostate cancer. In: Kantoff, P., Wishnow, K, and Loughlin, K. eds. Guide to Prostate Cancer, pp. 153-175, Blackwell Science, Cambridge, MA, 1997.
57. Clinton SK. Diet, anthropometry, and breast cancer: integration of experimental and epidemiologic approaches. *J. Nutr.* 127:916s-920s, 1997.
58. Qiao J, Tripathi J, Mishra N, Cai Y, Sangeetika T, Wang X, Imes S, Fishbein MC, Clinton SK, Libby P, Lusis AJ, Rajavashisth TB. Role of macrophage-colony stimulating factor in atherosclerosis: Studies of osteopetrotic mice. *Am. J. Pathology* 150:1687-1699, 1997.

59. Chen L, Chen D, Block E, O'Donnell MA, Kufe D, Clinton SK. Eradication of murine bladder carcinoma by intratumoral injection of a bicistronic adenoviral vector carrying cDNAs for the IL-12 heterodimer and its inhibition by the IL-12 p40 subunit homodimer. *J. Immunology*. 159:351-359, 1997.
60. Clinton SK. Dietary lipids and the cancer cascade. In: Dietary Fat and Cancer: Genetic and Molecular Interactions, Advances in Experimental Medicine and Biology Series, Vol. 422, pages 21-37, Plenum Press, New York, 1997.
61. Clinton SK. Lycopene: Chemistry, Biology, and Implications for Human Health and Disease. *Nutrition Reviews* 56:35-51, 1998.
62. Clinton SK and Giovannucci EA. Diet, Nutrition and Prostate Cancer. *Annual Review of Nutrition* 18:413-440, 1998.
63. Giovannucci EA and Clinton SK. Tomatoes, Lycopene, and Prostate Cancer. *Proc. Soc. Expt. Biol. and Med.* 218: 129-139, 1998.
64. Aikawa M, Rabkin E, Okada Y, Voglic SJ, Clinton SK, Brinckerhoff CE, Sukhova GK, Libby P. Lipid lowering by diet reduces matrix metalloproteinase activity and increases collagen content of rabbit atheroma: a potential mechanism of lesion stabilization. *Circulation* 97:2433-2444, 1998.
65. Jackson AM, Kuznetsov VA, Ivshina AV, Sen'ko O, Kuznetsova A, Sundan A, O'Donnell MA, Clinton SK, Kelly RW, Alexandroff AB, Prescott S, James K. Prognosis of bacillus Calmette-Guerin therapy of superficial bladder cancer by immunological urinary measurements: statistically weighted syndromes analysis. *J. Urology* 159: 1054-1063, 1998.
66. Rajavashisth T, Qiao J-H, Tipathi S, Tipathi J, Mishra N, Hua M, Wang X-P, Loussararian A, Clinton SK, Libby P, Lusic A. Heterozygous osteopetrotic (op) mutation reduces atherosclerosis in LDL receptor-deficient mice. *J. Clin. Invest.* 101:2702-2710, 1998.
67. Gu L, Okada Y, Clinton SK, Gerard C, Libby P, Rollins BJ. Absence of monocyte chemoattractant protein-1 reduces atherogenesis in low density lipoprotein receptor-deficient mice. *Mol. Cell* 2:275-281, 1998.
68. Zhou J-R, Mukherjee P, Gugger ET, Tanaka T, Blackburn GL, Clinton SK. The inhibition of murine bladder tumorigenesis by soy isoflavones via alterations in the cell cycle, apoptosis, and angiogenesis. *Cancer Research* 58:5231-5238, 1998.
69. Hursting S, Wei Q, Sturgis EM, Clinton SK. Chapter 2. The Cancer-Related Genes. Oncogenes, Tumor Suppressor Genes and the DNA Damage-Responsive Genes. In: Heber D, Blackburn GL, Go VL, Bloch AS, Clinton SK, Giovannucci E, Holland JF, Nixon DW, eds. Nutritional Oncology, Academic Press, San Diego, CA, pp 11-27, 1999.
70. Clinton SK, Michaud D, Giovannucci E. Chapter 31. Nutrition and Bladder Cancer. In: Heber D, Blackburn GL, Go VL, Bloch AS, Clinton SK, Giovannucci E, Holland JF, Nixon DW, eds. Nutritional Oncology, Academic Press, San Diego, CA, pp 461-475, 1999.
71. Mukherjee P, Zhou J-R, Sotnikov A, Clinton SK. Dietary and nutritional modulation of tumor angiogenesis. In: Antiangiogenic Agents in Cancer Therapy. Teicher BA, Ed. Humana Press, Totowa, N.J. pp. 237-262, 1999.

72. Mukherjee P, Sotnikov AV, Mangian HJ, Zhou J, Visek WJ, Clinton SK. Energy intake and prostate tumor growth, angiogenesis, and vascular endothelial growth factor expression. *J. Natl. Cancer Inst.* 91:512-523, 1999.
73. Michaud DS, Spiegelman D, Clinton SK, Rimm EB, Willett WC, Giovannucci EL. Fruit and vegetable intake and incidence of bladder cancer in a male prospective cohort. *J. Natl. Cancer Inst.* 91:605-613, 1999.
74. Michaud D, Spiegelman D, Clinton SK, Rimm EB, Curhan GC, Willett W, Giovannucci EL. Fluid intake and the risks of bladder cancer in men. *New England J. Medicine* 340:1390-1397, 1999.
75. Lichtman AH, Clinton SK, Iiyama K, Connelly PW, Libby P, Cybulsky MI. Hyperlipidemia and atherosclerotic lesion development in LDL receptor deficient mice fed defined semi-purified diets with and without cholate. *Arterioscler. Thromb. Vasc. Biol.* 19:1938-44, 1999.
76. Zhou J-R, Gugger ET, Tanaka T, Guo Y, Blackburn GL, Clinton SK. Soybean phytochemicals inhibit the growth of transplantable human prostate carcinoma and tumor angiogenesis in mice. *J. Nutr.* 129:1628-1635, 1999.
77. O'Donnell MA, Silvasi A, Chen X, Hunter-Mayor S, Clinton SK. Low dose Interleukin-12 potentiates immune therapy of murine bladder cancer and amplifies BCG-induced cytokine networks. *J Immunol.* 163:4246-52, 1999.
78. Clinton SK. The dietary antioxidant network and prostate carcinoma. *Cancer* 86:1629-1631, 1999.
79. Clinton SK, Canto E., O'Donnell MA. Interleukin12: Opportunities for the treatment of bladder cancer. *Urologic Clinics of North America* 27:147-156, 2000.
80. Williams AW, Boileau T, Zhou J-R, Clinton SK, Erdman JW. Beta-carotene modulates human prostate cancer cell growth *in vitro* and may undergo intracellular metabolism to retinol. *J. Nutr.* 130:728-732.2000.
81. Bahnsen R, Clinton SK, Reagan Jr RW. Review and commentary: intravesical therapy for superficial bladder cancer. *Oncology* 14: 734-737, 2000.
82. Boileau TWM, Clinton SK, and Erdman JW. Tissue lycopene concentrations and isomer patterns are affected by androgen status and dietary lycopene concentration in male F344 rats.. *J. Nutr.* 130: 1613-1618, 2000.
83. Williams AW, Boileau TWM, Clinton SK, Erdman JW. Beta-carotene stability and uptake by prostate cancer cells are dependent on delivery vehicle. *Nutrition and Cancer* 36:185-190, 2000.
84. Clinton SK, Miller EC, and Giovannucci, E. Nutrition in the etiology and prevention of cancer. In: Holland JF, Frei III E, Bast Jr RC, Kufe DW, Pollock, RE, Wechselbaum RR, eds. Cancer Medicine, fifth edition, B.C. Decker, Inc., Ontario, Canada, Chapter 26, pages 328-350, 2000.
85. Michaud DS, Spiegelman D, Clinton SK, Rimm EB, Willett WC, Giovannucci EL. A prospective study of macronutrient and micronutrient intake and risk of bladder cancer in U.S. men. *American J. Epidemiology.* 152:1145-53, 2000.
86. Boileau TWM, Clinton SK, Zaripheh S, Monaco MH, Donovan SH, Erdman JW. Testosterone and diet restriction modulate hepatic lycopene isomer concentrations in male F344 rats. *J. Nutrition* 131:1746-1752, 2001.

87. Miller EC, Liao Z, Guo Y, Shah S, Clinton SK. Chemoprevention: Progress and Opportunity. In: Nutrition and Cancer Prevention, Adv. Exp. Med Biol. 492:263-274, 2001.
88. Smith WM, Zhou X., Kurose K, Gao X, Latif F, Kroll T, Sugano K, Cannistra SA, Maher ER, Clinton SK, Prior TW, Eng C. Opposite association of two PPARG variants with cancer: overrepresentation of H449H in endometrial carcinoma cases and underrepresentation of P12A in renal cell carcinoma cases. *Human Genetics* 109:146-151, 2001.
89. Michaud, DS, Clinton SK, Rimm EB, Willett, WC, Giovannucci EL. Risk of bladder cancer by geographic region in a U.S. cohort of male health professionals. *Epidemiology*. 6:719-26, 2001.
90. Nadella P, Shapiro C, Otterson GA, Hauger M, Erdal S, Kraut E, Clinton S, Shah M, Stnek M, Monk P, and Villalona-Calero MA. Pharmacobiologically based scheduling of capecitabine and docetaxel results in antitumor activity in resistant human malignancies. *J. Clin. Oncol.* 20:2616-2623, 2002
91. Miller EC, Giovannucci, E, Erdman JW, Bahnson R, Schwartz SJ, Clinton SK. Tomato products, lycopene, and prostate cancer risk. *Urol. Clin. North Am.* 29:83-93, 2002.
92. Clinton SK. The Work Before Us. In: Nutrition After Cancer: The Role of Diet in Cancer Survivorship. American Institute for Cancer Research., Washington, D.C., pages 53-58, 2002.
93. Allen CM, Smith AM, Clinton SK, Schwartz SJ. Tomato consumption increases lycopene isomer concentrations in breast milk and plasma of lactating women.. *J. American Dietetic Assoc.* 102:1257-1262, 2002.
94. Miller EC, Hadley CW, Schwartz SJ, Erdman Jr. JW, Boileau TWM, and Clinton SK. Lycopene, tomato products and prostate cancer prevention: have we established causality? *Pure Appl. Chem.* 74:1435-1441, 2002.
95. Liao Z, Boileau TW, Erdman JW, and Clinton SK. Interrelationships among angiogenesis, proliferation, and apoptosis in the tumor microenvironment during *N*-methyl-*N*-nitrosourea-androgen-induced prostate carcinogenesis in rats. *Carcinogenesis* 23:1701-1711, 2002
96. Hadley CW, Miller EC, Schwartz SJ, Clinton SK. Tomatoes, lycopene, and prostate cancer: progress and promise. *Exp Biol Med.* 227:869-880, 2002
97. Schwartz, S.J., Hadley, C.W., Miller, E.C. & Clinton, S.K. Chemistry, bioavailability and health benefits of lycopene and other carotenoids in tomato products. In: *Functionalities of Pigments in Food* (Empis, J.A., ed.), pp. 61-69. Exemplar, Artes Graficas, Lda., Lisbon. 2002.
98. Hadley CW, Clinton SK, Schwartz SJ. The consumption of processed tomato products enhances plasma lycopene concentrations in association with reduced lipoprotein sensitivity to oxidative damage. *J. Nutr.* 133:727-732, 2003.
99. Pohar KS, Gong M, Bahnson R, Miller E, Clinton SK. Tomatoes, Lycopene and Prostate Cancer: A Clinician's Guide for Counseling Those at Risk for Prostate Cancer. *World J. Urol.* 21:9-14, 2003
100. Yee LD, Bradbury J, Guo Y, Liu L, Suster S, Clinton SK, and Seewaldt VL. Differential effects of PPARg ligands in normal human mammary epithelial cells. *Breast Cancer Res. Treat.* 78:179-192, 2003.

101. Wu K, Schwartz SJ, Platz EA, Clinton SK, Erdman JW, Ferruzzi M, Willett WC, Giovannucci EL. Variation in plasma lycopene and specific isomers over time in a cohort of US men. *J. Nutr.* 133:1930-1936, 2003.
102. Wang S, DeGroot VL, Clinton SK. Tomato and soy-polyphenols reduce insulin-like growth factor-I-stimulated rat prostate cancer cell proliferation and apoptotic resistance *in vitro* via inhibition of intracellular signaling pathways involving tyrosine kinase. *J. Nutr.* 133:2367-2376, 2003
103. Clinton SK, Giovannucci, E and Miller EC. Nutrition in the etiology and prevention of cancer. In: Holland JF, Frei III E, Bast Jr RC, Kufe DW, Pollock, RE, Wechselbaum RR, eds. Cancer Medicine, sixth edition, ,Chapter 29, pp397-412, B.C. Decker, Inc., Ontario, Canada.

IN PRESS

104. Boileau TWM, Liao Z, Erdman Jr JW, and Clinton SK. Tomato phytochemicals and diet restriction reduce the risk of N-methyl-Nitrosourea (NMU)-testosterone-induced prostate cancer in rats. (IN PRESS JNCI).
105. Allen CM, Schwartz SJ, Craft NE, Giovannucci EL, De Groff VL, Clinton SK. Plasma carotenoid and lycopene isomer concentrations in healthy adults consuming processed tomato products. (IN PRESS Nutrition and Cancer)
106. O'Donnell MA, Luo Y, Hunter SE, Chen X, Donnelly LH, Clinton SK. Interleukin-12 immunotherapy of murine transitional cell carcinoma of the bladder: Dose-dependent tumor eradication and generation of protective immunity. (IN PRESS J. Urology)
107. O'Donnell MA, Luo Y, Hunter SE, Chen X, Donnelly LH, Clinton SK. The essential role of interferon- γ during interleukin-12 therapy of murine transitional cell carcinoma of the bladder. (IN PRESS J. Urology)
108. Wu K, Erdman JW, Schwartz SJ, Platz EA, Leitzmann M, Clinton SK, Degroff V, Willett WC, Giovannucci EL. Plasma and dietary carotenoids and the risk of prostate cancer-a nested case-control study. (IN PRESS Cancer Epi. Biomarkers and Prevention)

SUBMITTED

108. Liu M, Tanaka H, Loussararian A, Tripathi P, Shukla A, Chai N-N, Uzui H, Kumar A, Tripathi J, Clinton S, Reidy M, Doherty T, Cercek B, Kaul S, Shah P, Rajavashisth T. Obligate role of M-CSF for the development of neointimal thickening following arterial injury. (Submitted to Circulation).
109. Guo Y, DeGross VL, Clinton SK. Soy isoflavones lower the apoptotic threshold of prostate cancer cells through caspase-3 dependent pathways. (Submitted to Mol. Carcinogenesis)
110. Kraut EH, Bender J, Clinton SK, Liao Z, Jensen R, Monk JP, Balcerzak S, Chan K, Mueller C, Vaswani K, Mantil J, Christian B, Grever M. A phase I study of the VEGF receptor kinase inhibitor SU5416 in combination with CPT-11 and Cisplatin in patients with solid tumors. (Submitted to JCO).
111. Liao Z, Boileau TW, Erdman JW, and Clinton SK. The loss of androgen receptor expression during the progression of N-methyl-N-nitrosurea and testosterone-induced prostate carcinogenesis in rats. (Submitted to Carcinogenesis)