

Immuno-Therapy & Detoxification for Small Animals

Featured Vet: Nancy Scanlan, DVM

Host: Geoff D'Arcy, Lic.Ac. DOM



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FEATURED VET:

Nancy Scanlan, D.V.M., F.S.F.P.

Dr. Nancy Scanlan has practiced veterinary medicine since 1970 and is currently using 100% integrative methods in her treatment of animals. Certified in veterinary acupuncture, she also uses nutrition, nutraceuticals, herbal medicine, homotoxicology, and trigger point therapies. While her approach is holistic, she believes that the best animal care is often complementary, combining the best of conventional and holistic treatments. Dr. Scanlan has been an executive board member and past president of the American Holistic Veterinary Medical Association (AHVMA) and is the current president of the Veterinary Botanical Medical Association (VBMA). She is also a board member and co-founder of the Veterinary Institute of Integrative Medicine (VIIM) and Veterinary Research Council (VRC) and a consultant for several natural pet product companies. She has been a featured speaker at many professional meetings and has written numerous articles on holistic approaches to animal healing.

Currently Dr. Scanlan is working on a new book and reference guide titled: ***“Complementary Medicine for Veterinary Technicians and Nurses”***. The book is scheduled to be released to the public in January 2011 by Wiley Blackwell.



HOST:

Geoff D'Arcy, Lic. Ac., D.O.M.

Geoff has been a practicing Traditional Chinese Medicine (TCM) Herbalist and Acupuncturist for over 30 years. He started Herb-for-Pets over ten years ago at the request of veterinarians looking for herbal pet care options. With his commitment to wellness and natural healing, he has trekked around the world discovering native herbs that have powerful healing properties. With his knowledge he has developed an excellent, well-balanced line of herbal formulas for pets; ranging from common conditions and nutritional support to formulas for serious disease and chronic conditions.

Geoff has authored and co-authored several books on holistic medicine and herbs, including “The Veterinary World Herb Handbook” and “The World Herb Handbook”. He has also co-founded two large integrative medical centers in Massachusetts and is now Director of the D’Arcy Wellness Center in Natick, Massachusetts. He is president of D’Arcy Naturals, Inc., a company that produces all natural herbal formulas for people and pets. D’Arcy Naturals offers free eNewsletters for veterinarians at www.naturalpetrx.com.

Herbal Medicine In Our World Today

Worldwide:

- 80% of the world's population use herbal medicine to stay well. 804 million
- 75 % of all drugs come from folk medicine.

North America:

- One in three uses complementary medicines.

Germany and France:

- 70 % of the German GPs prefer to prescribe herbal medicines/phytopharmaceuticals in healthcare. Ginkgo biloba is now the most prescribed drug in *Germany*.

http://www.camdoc.eu/Survey/Results_NAT.html



China:

- 60% of the population rely on herbs for healthcare.

Japan:

- 80% of MDs in Japan have experience with herbal medicine.

Drug Discoveries from Herbal Sources

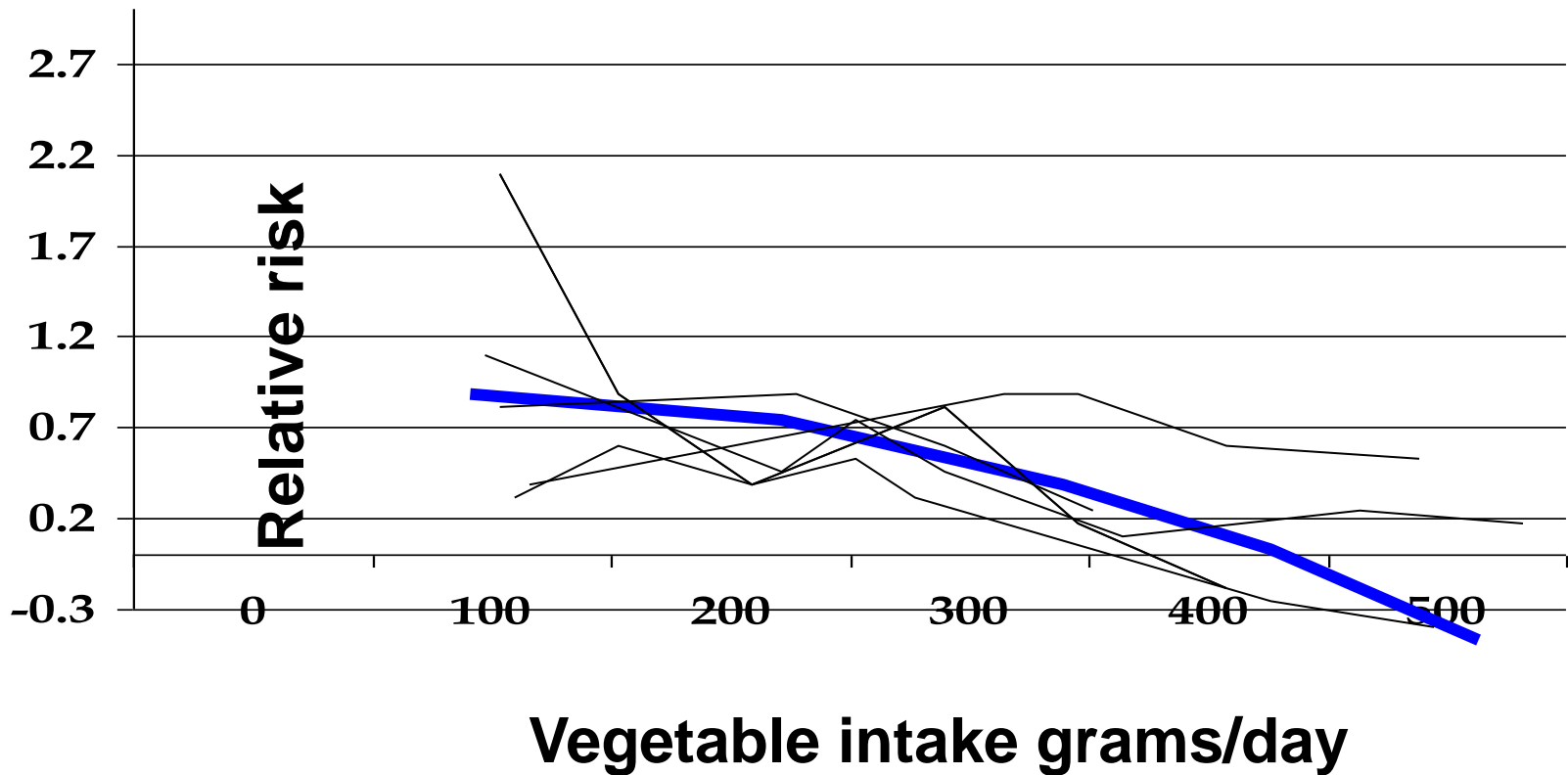
- 121 prescription drugs in use today come from 90 plant species.
- About 74% came from following folklore claims. (Benowitz S, The Scientist 10, 1996, 1-7.)
- Approximately 25% of the drug prescription in the USA are compounds derived from plants and were discovered through scientific investigation of folklore claims. (Reynold T, J. Natl. Cancer Inst. 183, 1991, 594-596.)

Natural Herb	Pharmaceutical Drug
Pacific Yew	Taxol
Rosy Periwinkle	Vinblastin, Vincristine
Foxglove	Digitalis
Meadowsweet	Aspirin

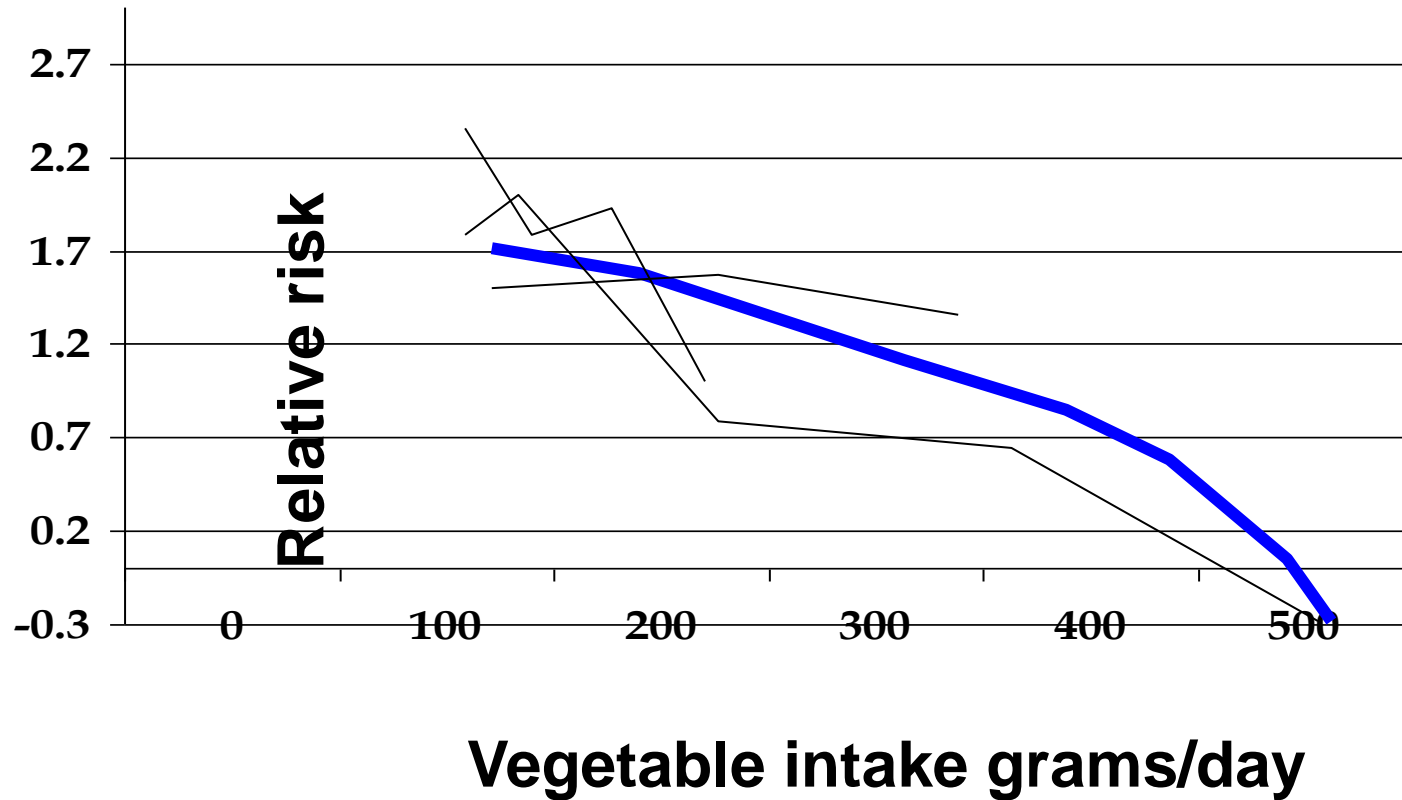


Lung Cancer and Vegetable Intake

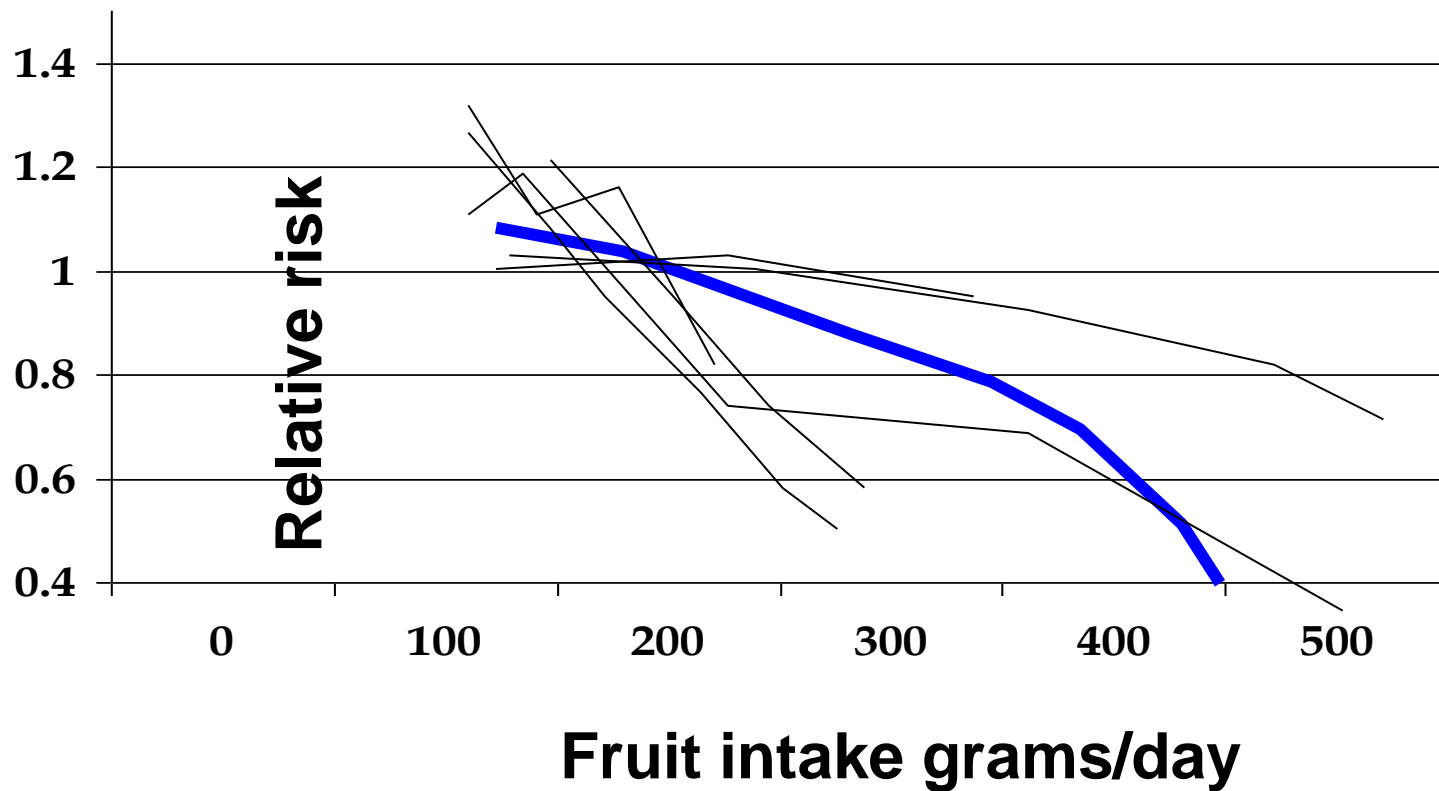
(each line is the results of a different study, the blue line is the average)



Stomach Cancer and Vegetable Intake



Stomach Cancer and Fruit Intake



NF-kappa B (NF-kB)

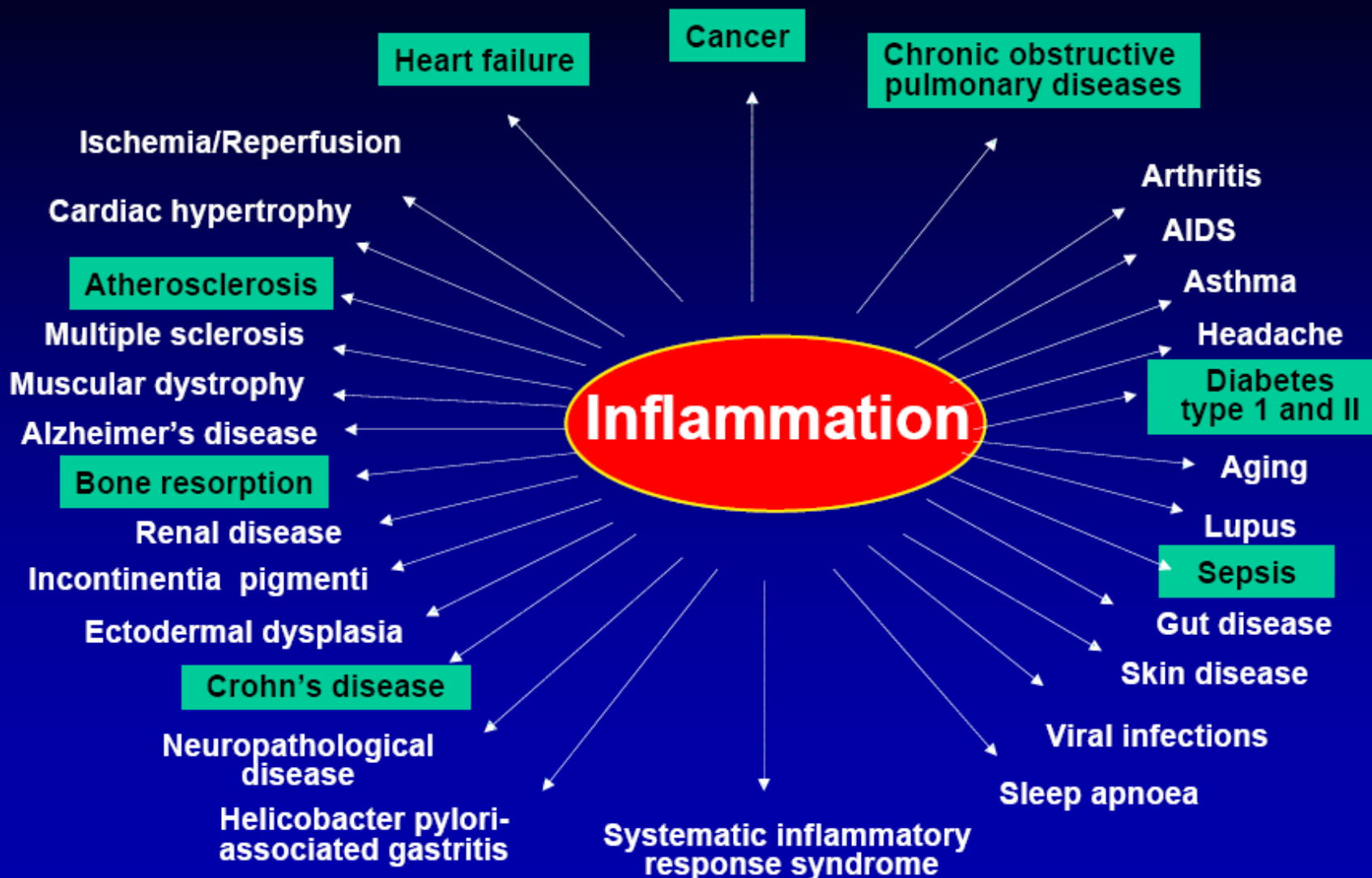
master switch to regulate more than 300 genes

- nuclear factor-kappa B (NF-kB), a powerful master switch known to regulate expression of more than 300 genes that promote an abnormal inflammatory response that leads to a variety of disorders, these transcription factors are persistently active in a number of disease states including
 - heart disease.
 - cancer.
 - arthritis
 - immune responses
 - inflammatory responses
 - chronic inflammation, IBS, chron's, ulcerative colitis
 - developmental processes, cellular growth, and apoptosis.
 - asthma,
 - neurodegenerative diseases

Hypothesis!

NF- κ B activation is a major mediator of inflammation in most diseases & inhibition of NF- κ B activation can suppresses inflammation

Inflammation has been linked to several diseases



Comparison of Cancer Incidence

Cancer	USA		India		Japan	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Oral cavity	50	11	102	60	29	12
Nasopharynx	4	2	4	3	3	2
Other Pharynx	19	9	57	42	10	7
Oesophagus	31	31	63	59	58	43
Stomach	56	34	43	39	489	225
Colon/Rectum	356	139	40	26	342	143
Liver	30	31	17	16	186	146
Pancreas	72	68	11	11	76	71
Larynx	33	11	35	22	17	5
Lung	463	402	55	51	262	214
Melanoma of skin	113	21	3	1	3	2
Breast	914	212	191	99	314	77
Cervix uteri	78	33	307	174	111	30
Corpus uteri	155	20	17	5	45	13
Ovary etc.	106	62	49	29	66	37
Prostate	1043	179	46	28	111	55
Testis	40	2	6	3	13	2
Bladder	144	28	20	16	56	17
Kidney etc.	86	31	8	6	42	19
Brain, nervous system	54	37	21	16	24	9
Thyroid	46	3	14	4	31	5
Non-Hodgkin lymphoma	135	59	24	19	58	30
Hodgkin's disease	22	4	8	4	3	1
Multiple myeloma	35	26	8	6	16	12
Leukemia	80	54	26	20	48	34
All sites but skin	3223	1391	1017	688	2230	1213

Showing cases were after standardized with world standard population, called World Standardized incidence or mortality rate. It is also expressed per million. J. Ferlay, et al. GLOBOCAN 2000. URL: <http://www-dep.iarc.fr/globocan/globocan.htm>

Chemical Composition of Most Common Spices

Spice	Botanical name*	Part of Plant	Major Constituents
Tumeric	Curcuma longa	rhizome	Essential oils 5%: tumerone (58%), borneol (6.5%), cineole (1%), a-phellandrene (1%), curcumin (0.6%), zingerone, zingiberene (25%)
Pepper (red)	Capsicum frutescens	fruit	Pigments: carotene, zeaxanthin, cryptoxanthin; oleoresin (1.5%); capsaicin
Cloves	Syzygium aromaticum (<i>Caryophyllus aromaticus</i> , <i>Eugenia caryophyllata</i>)	buds	Essential oils 17%: eugenol (93%), caryophyllin, vanillin, Eugenin, methylamylketone
Coriander	Coriandrum sativum	seeds	Essential oils 1%: (+)-linalool (60-70%), a-pinene, b-pinene, a-terpinene, b-terpinene, geraniol, borneol, decylaldehyde, dipentene, cymene
Cumin	Cuminum cyminum	seeds	Essential oil 4.5%: cuminaldehyde (40-65%), thymol, cymol, cymene

References

1,830 PAPERS STUDIES AND REPORTS ON CURCUMIN

- Aggarwal B. Paper presented at the U.S. Defense Department's 'Era of Hope' Breast Cancer Research Program meeting in Philadelphia, PA, October 5, 2005,. reported in NUTRAingredients.com/Europe "Turmeric slows breast cancer spread in mice."
- Ahsan H, Parveen N, Khan NU, Hadi SM. Pro-oxidant, anti-oxidant and cleavage activities on DNA of curcumin and its derivatives demethoxycurcumin and bisdemethoxycurcumin. *Chem Biol Interact* 1999 Jul 1;121(2):161-75, PMID: 7690
- Arbiser JL, Klauber N, Rohan R, et al. Curcumin is an in vivo inhibitor of angiogenesis. *Mol Med* 1998 Jun;4(6):376-83, PMID: 7540
- Asai A, Nakagawa K, Miyazawa T. Antioxidative effects of turmeric, rosemary and capsicum extracts on membrane phospholipid peroxidation and liver lipid metabolism in mice. *Biosci Biotechnol Biochem* 1999 Dec;63(12):2118-22, PMID: 7550
- Balasubramanian K. Molecular Orbital Basis for Yellow Curry Spice Curcumin's Prevention of Alzheimer's Disease. *J. Agric. Food Chem.*, 54 (10), 3512 - 3520, 2006. 10.1021/jf0603533 S0021-8561(06)00353-0, Web Release Date: April 20, 2006.
- Calabrese V, Butterfield DA, Stella AM. Nutritional antioxidants and the heme oxygenase pathway of stress tolerance: novel targets for neuroprotection in Alzheimer's disease. *Ital J Biochem.* 2003 Dec;52(4):177-81.
- Calabrese V, et. al. Paper on curcumin's induction of hemeoxygenase-1. Presented at the annual conference of the American Physiological Society, held April 17-21, 2004, Washington, D.C.
- Cruz-Correa M, Shoskes DA, Sanchez P, Zhao R, Hylind LM, Wexner SD, Giardiello FM. Combination treatment with curcumin and quercetin of adenomas in familial adenomatous polyposis. *i>Clin Gastroenterol Hepatol.* 2006 Aug;4(8):1035-8. Epub 2006 Jun 6. , PMID: 16757216
- Deshpande UR, Gadre SG, Raste AS, et al. Protective effect of turmeric (*Curcuma longa* L.) extract on carbon tetrachloride-induced liver damage in rats. *Indian J Exp Biol* 1998 Jun;36(6):573-7, PMID: 7740
- Dorai T, Cao YC, Dorai B, et al. Therapeutic potential of curcumin in human prostate cancer. III. Curcumin inhibits proliferation, induces apoptosis, and inhibits angiogenesis of LNCaP prostate cancer cells in vivo. *Prostate* 2001 Jun 1;47(4):293-303, PMID: 16280
- Egan ME, Pearson M, Weiner SA, Rajendran V, Rubin D, Glockner-Pagel J, Canny S, Du K, Lukacs GL, Caplan MJ. Curcumin, a major constituent of turmeric, corrects cystic fibrosis defects. *Science.* 2004 Apr 23;304(5670):600-2., PMID: 15105504
- Ensminger AH, Ensminger M. K. J. e. al. *Food for Health: A Nutrition Encyclopedia.* Clovis, California: Pegus Press; 1986, PMID: 15210
- Fiala M, Lin J, Ringman J, Kermani-Arab V, Tsao G, Patel A, Lossinsky AS, Graves MC, Gustavson A, Sayre J, Sofroni E, Suarez T, Chiappelli F, Bernard G. Ineffective phagocytosis of amyloid-beta by macrophages of Alzheimer's disease patients. *J Alzheimers Dis.* 2005 Jun;7(3):221-32; discussion 255-62. , PMID: 16006665
- Fortin, Francois, Editorial Director. *The Visual Foods Encyclopedia.* Macmillan, New York 1996
- Grieve M. *A Modern Herbal.* Dover Publications, New York 1971
- Gururaj A, Kelakavadi M, Venkatesh D et al. Molecular mechanisms of anti-angiogenic effect of curcumin. *Biochem Biophys Res Commun* 2002 Oct 4;297(4):934 2002
- Hidaka H, Ishiko T, Furunashi T et al. Curcumin inhibits interleukin 8 production and enhances interleukin 8 receptor expression on the cell surface: impacgt on human pancreatic carcinoma cell growth by autocrine regulation. *Cancer* 2002 Sep 15;96(6):1206-14 2002
- Kang BY, Chung SW, Chung W et al. Inhibition of interleukin-12 production in lipopolysaccharide-activated macrophage by curcumin. *Eur J Pharmacol* 1999 Nov;384(2-3):191-5 1999

1,830 PAPERS STUDIES AND REPORTS ON CURCUMIN

- Kang BY, Song YJ, Kim KM et al. Curcumin inhibits Th1 cytokine profile in CD4+ T cells by suppressing interleukin-12 production in macrophages. *Br J Pharmacol* 1999 Sep;128(2):380-4 1999
- Khor TO, Keum YS, Lin W, Kim JH, Hu1 R, Shen G, Xu1 C, Gopalakrishnan A, Reddy B, Zheng X, Conney AH, Kong AN. Combined Inhibitory Effects of Curcumin and Phenethyl Isothiocyanate on the Growth of Human PC-3 Prostate Xenografts in Immunodeficient Mice. *Cancer Research*. 2006 Jan; 66(2): 613-621., PMID: 16423986
- Lim GP, Chu T, Yang F, et al. The curry spice curcumin reduces oxidative damage and amyloid pathology in an Alzheimer transgenic mouse. *J Neurosci* 2001 Nov 1;21(21):8370-7, PMID: 16240
- Nagabhushan M, Amonkar AJ, Bhide SV. *In vitro* antimutagenicity of curcumin against environmental mutagens. *Food Chem Toxicol*. 1987 Jul;25(7):545-7., PMID: 3623345
- Nagabhushan M, Bhide SV. Curcumin as an inhibitor of cancer. *J Am Coll Nutr*. 1992 Apr;11(2):192-8., PMID: 1578097
- Nagabhushan M, Nair UJ, Amonkar AJ, D'Souza AV, Bhide SV. Curcumins as inhibitors of nitrosation *in vitro*. *Mutat Res*. 1988 Nov;202(1):163-9., PMID: 3054526
- Nagabhushan M. . Research presented at the Children with Leukaemia Conference, www.leukaemia.org, September 2004
- Nakamura K, Yasunaga Y, Segawa T et al. Curcumin down-regulates AR gene expression and activation in prostate cancer cell lines. *Int J Oncol* 2002 Oct;21(4):825-30 2002
- Natarajan C, Bright JJ. Peroxisome proliferator-activated receptor-gamma agonists inhibit experimental allergic encephalomyelitis by blocking IL-2 production, IL-12 signaling and Th1 differentiation. *Genes Immun* 2002 Apr;3(2):59-70 2002
- Olszewska M, Glowacki R, Wolbis M, Bald E. Quantitative determination of flavonoids in the flowers and leaves of *Prunus spinosa* L. *Acta Pol Pharm* 2001 May-2001 Jun 30;58(3):199-203, PMID: 16270
- Parfk SY, Kim DS. Discovery of natural products from *Curcuma longa* that protects cells from beta-amyloid insult: a drug discovery effort against Alzheimer's disease. *J Nat Prod* 2002 Sep;65(9):1227-31 2002
- Salh B, Assi K, Templeman V, Parhar K, Owen D, Gomez-Munoz A, Jacobson K. Curcumin attenuates DNB-induced murine colitis. *Am J Physiol Gastrointest Liver Physiol*. Jul;285(1):G235-43. Epub 2003 Mar 13 2003, PMID: 12637253
- Shah BH, Nawaz Z, Pertani SA, et al. Inhibitory effect of curcumin, a food spice from turmeric, on platelet- activating factor- and arachidonic acid-mediated platelet aggregation through inhibition of thromboxane formation and Ca²⁺ signa. *Biochem Pharmacol* 1999 Oct 1;58(7):1167-72, PMID: 7670
- Shishodia S, Amin HM, Lai R, Aggarwal BB. Curcumin (diferuloylmethane) inhibits constitutive NF-kappaB activation, induces G1/S arrest, suppresses proliferation, and induces apoptosis in mantle cell lymphoma. *Biochem Pharmacol*. 2005 Sep 1;70(5):700-13., PMID: 16023083
- Wills RB, Scriven FM, Greenfield H. Nutrient composition of stone fruit (*Prunus* spp.) cultivars: apricot, cherry, nectarine, peach and plum. *J Sci Food Agric* 1983 Dec;34(12):1383-9, PMID: 16280
- Wood, Rebecca. *The Whole Foods Encyclopedia*. New York, NY: Prentice-Hall Press; 1988, PMID: 15220
- Wuthi-udomler M, Grisanapan W, Luanratana O, Caichompoo W. Antifungal activity of *Curcuma longa* grown in Thailand. *Southeast Asian J Trop Med Public Health* 2000;31 Suppl 1:178-82, PMID: 16270
- Yang F, Lim GP, Begum AN, Ubada OJ, Simmons MR, Ambegaokar SS, Chen PP, Kaye R, Glabe CG, Frautschy SA, Cole GM. Curcumin inhibits formation of Abeta oligomers and fibrils and binds plaques and reduces amyloid *in vivo*. *J Biol Chem*. 2004 Dec 7; [Epub ahead of print], PMID: 15590663
- Zhang L, Fiala M, Cashman J, Sayre J, Espinosa A, Mahanian M, Zaghi J, Badmaev V, Graves MC, Bernard G, Rosenthal M. Curcuminoids enhance amyloid-beta uptake by macrophages of Alzheimer's disease patients. *J Alzheimers Dis*. 2006 Sep;10(1):1-7., PMID: 16988474



Sulforaphane in Broccoli

- **Sulforaphane induces Phase 2 (detoxification) enzymes, which are the enzymes that help to deactivate carcinogens and free radicals, thereby enhancing the body's own defense system.**
- **Some of the best growing techniques now guarantee large quantities, up to 5,500 parts per million, of sulforaphane within organically grown broccoli sprout**
- **In animal studies, sulforaphane blocked tumor development, reducing incidence, multiplicity, and size of carcinogen-induced mammary tumors**

Broccoli References

- Powerful and prolonged protection of human retinal pigment epithelial cells, keratinocytes, and mouse leukemia cells against oxidative damage: the indirect antioxidant effects of sulforaphane. <http://www.pnas.org/cgi/doi/10.1073/pnas.261572998> Proc. Natl. Acad. Sci. USA, Vol. 98, Issue 26, pp. 15221-15226, December 18, 2001 Xiangqun Gao, Albena T. Dinkova-Kostova, and Paul Talalay
- The impaired glutathione system and its up-regulation by sulforaphane in vascular smooth muscle cells from spontaneously hypertensive rats. <http://www.jhypertension.com/article.asp?ISSN=0263-6352&VOL=19&ISS=10&PAGE=1819> Hypertension, Vol. 19, pp. 1819-1825, 2001. Lingyun Wu; Bernhard H. J. Juurlink
- Potent induction of Phase 2 enzymes in human prostate cells by sulforaphane. <http://cebp.aacrjournals.org/cgi/content/abstract/10/9/949> Cancer Epidemiology, Biomarkers & Prevention, Vol. 10, pp. 949-954. Sept. 2001. James D. Brooks, Vincent G. Paton and Genevieve Vidanes
- Sensitivity to carcinogenesis is increased and chemoprotective efficacy of enzyme inducers is lost in nrf2 transcription factor-deficient mice <http://www.pnas.org/cgi/content/short/98/6/3410> Proc. Natl. Acad. Sci. USA, Vol. 98, Issue 6, 3410-3415, March 13, 2001 Minerva Ramos-Gomez, Mi-Kyoung Kwak, Patrick M. Dolan, Ken Itoh, Masayuki Yamamoto, Paul Talalay, and Thomas W. Kensler JHMI Press release: Studies Show Powerful Natural Anti-Cancer System Exists: Goal Now: Fine Tune It
- Potency of Michael reaction acceptors as inducers of enzymes that protect against carcinogenesis depends on their reactivity with sulfhydryl groups <http://www.pnas.org/cgi/content/short/98/6/3404> Proc. Natl. Acad. Sci. USA, Vol. 98, Issue 6, 3404-3409, March 13, 2001 Albena T. Dinkova-Kostova, Michael A. Massiah, Richard E. Bozak, Ronald J. Hicks, and Paul Talalay. The chemical diversity and distribution of glucosinolates and isothiocyanates among plants Phytochemistry 2001, 56:5-51. Fahey, Jed W., Zalcmann, Amy T, Talalay, Paul.
- Inhibition of benzo[a]pyrene- and 1,6-dinitropyrene-DNA adduct formation in human mammary epithelial cells by dibenzoylmethane and sulforaphane. http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=10814878&dopt=Abstract Cancer Letters 2000 July 3; 155(1):47-54. Singletary K, MacDonald C.
- Sulforaphane, A Naturally Occurring Isothiocyanate, Induces Cell Cycle Arrest and Apoptosis in HT29 Human Colon Cancer Cells http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=10728709&dopt=Abstract Abstract Cancer Research 2000 March 1; 60(5):1426-1433. Gamet-Payrastre L, Li P, Lumeau S, Cassar G, Dupont MA, Chevolleau S, Gase N, Tulliez J, TerÅŠÅ© F.
- Chemoprevention of colonic aberrant crypt foci in Fischer rats by major isothiocyanates in watercress and broccoli. Proceedings of the American Association for Cancer Research, March 2000; 41:660. Chung F-L, Conaway CC, Rao CV, Reddy BS.
- Antioxidant functions of sulforaphane: a potent inducer of Phase II detoxication enzymes. <http://www.ncbi.nlm.nih.gov/htbin-post/Entrez/query?uid=10541453&form=6&db=m&Dopt=b> Food Chem Toxicol 1999 Sep-Oct;37(9-10):973-9 Jed W. Fahey, Paul Talalay
- The War Against Cancer: New Hope, Proceedings of the American Philosophical Society, March 1999, Vol. 143(1), pp. 52-72., Talalay, Paul.
- Broccoli sprouts: An exceptionally rich source of inducers of enzymes that protect against chemical carcinogens <http://www.pnas.org/cgi/content/abstract/94/19/10367> Proc. Natl. Acad. Sci. USA, Vol. 94, pp. 10367-10372, September 16, 1997. Jed W. Fahey, Yuesheng Zhang, and Paul Talalay
- Electrophile and Antioxidant Regulation of Enzymes that Detoxify Carcinogens <http://www.pnas.org/cgi/content/abstract/92/19/8965> Proc Natl Acad Sci U S A 1995 Sep 12;92(19):8965-9 T Prestera and Paul Talalay
- Anticarcinogenic Activities of Sulforaphane and Structurally Related Synthetic Norbornyl Isothiocyanates <http://www.pnas.org/cgi/content/abstract/91/8/3147> Proc Natl Acad Sci USA 1994 Apr 12;91(8):3147-50 Y Zhang, TW Kensler, C Cho, GH Posner and P Talalay
- Chemical and Molecular Regulation of Enzymes that Detoxify Carcinogens <http://www.pnas.org/cgi/content/abstract/90/7/2965> Proc Natl Acad Sci USA 1993 Apr 1;90(7):2965-9 T Prestera, WD Holtzclaw, Y Zhang and P Talalay
- A Major Inducer of Anticarcinogenic Protective Enzymes from Broccoli: Isolation and Elucidation of Structure <http://www.pnas.org/cgi/content/abstract/89/6/2399> Proc Natl Acad Sci USA 1992 Mar 15;89(6):2399-403 Y Zhang, P Talalay, C Cho and GH Posner
- Rapid Detection of Inducers of Enzymes that Protect Against Carcinogens <http://www.pnas.org/cgi/content/abstract/89/6/2394> Proc Natl Acad Sci USA 1992 Mar 15;89(6):2394-8 HJ Prochaska, AB Santamaria and P Talalay
- Chemoprotection against cancer by phase 2 enzyme induction. <http://www.ncbi.nlm.nih.gov/htbin-post/Entrez/query?uid=8597048&form=6&db=m&Dopt=b> Toxicol Lett 1995 Dec;82-83:173-9 Talalay P, Fahey JW, Holtzclaw WD, Prestera T, Zhang Y

Nature's Pharmacy: Plants That Heal

Plants will also generate hundreds of compounds to protect themselves from animals and insects.

- ☛ Tannins in leaves have mild anti-bacterial compounds and act as a barrier against penetration and colonization by plant pathogens. They dry out leakage of fluids from any break in the plant's cells, causing contraction of the tissues.
- ☛ They also can bind with these pathogens on the surface causing a hardening or tanning of the cells, creating a protective layer, shutting down entry of the pathogen to the plant.
- ☛ Plants need to generate these natural, yet complex chemistries to survive. They can generate antibiotic, anti-microbial, mucilaginous, gum, resin, ant-inflammatory, and analgesic compound
- ☛ Many clinically important drugs, such as aspirin, digitoxin, progesterone, cortison and morphine, have been derived directly or indirectly from higher plants.
- ☛ Less well-recognised but of great clinical importance are the widely used drugs from fungi such as the antibiotics, penicillin and griseofulvin, the ergot alkaloids and cyclosporin.

Traditional Chinese Medicine for Pets

The foundation for the organizing principles were laid down in the Chinese medical text, the Yellow Emperor's Inner Classic.

- Every herb has a down side; good formulas knock the hard edges off the “star player”, with the philosophy that “the team is greater than it’s star player.” The whole is greater than the sum of its parts.
- The combinations in a formula produce a new therapeutic agent that treats more effectively and completely the cause, as well as the symptoms, of a health problem. There are organizing principles that govern the combining of thousands of active ingredients in plants to create a harmonized, effective team.
- In the seventy-fourth chapter of the basic questions, (*Su Wen*), it is stated, “That [ingredient] which primarily treats the disease is the Chief, that which aids the Chief is the Deputy, that which is bound to the Deputy is the Envoy/Messenger.

Cancer Facts for Pets

Cancer is the leading cause of death in pet cats and dogs in the United States. As many as 50% of pets die of cancer.

One definition of cancer:

“A malignant growth of tissue tending to spread and associated with general ill health and progressive emaciation”.

- Cancer is the uncontrolled growth of abnormal cells on or within the body. Not all cancers are the same. Depending on the location and biologic behavior there may be several treatment options available for animals. Conventional treatments include chemotherapy, radiation therapy and surgery.
- **Complimentary Medicine More Mainstream** – Growing number of veterinarians are turning to supplements in treating pets with cancer, which may not be able to tolerate traditional drug therapies.

At the core of holistic pet care is the notion that the best way to cure an animal is to help the animal cure itself.

Why Herbal Medicine?

Herbal medicine is a gentle, natural, non-toxic, therapeutic approach that provides a wonderful option in animal healthcare.

- **There are more than 10,000 independent research papers** available on polysaccharide immune modulators and their use in cancer treatment. These are research papers from the National Institute of Health, Harvard University, Japanese Cancer Society, Cancer Research UK and all of the other mainstream research organizations.
- **“Why aren’t herbal supplements being more widely used in cancer treatment?”**
- These are naturally occurring compounds and therefore they don't fit our political/business model of veterinarian medicine in America.
- **Until these immuno-modulator compounds are synthesized and patented**, the large U.S. Pharmaceutical companies (who are also the ones manufacturing the veterinary medicines and funding the veterinary schools) will not bring them to market.
- Herbal Supplements along with conventional therapy, increases the effectiveness and results in higher remission rates.

supplement conventional approaches

minimize side effects

improve treatment outcomes

Improve feeling of well-being

boosts the pet’s natural healing powers

If you have further comments or feedback,
please email me at:

darcygeoff@yahoo.com

Next month, please join us next time on the
topic of

“Dietary Supplements and Nutrition”