



CLINICAL STUDY REFERENCES: Chinese & Ayurvedic Herbs

Familiarizing oneself with relevant scientific research is critical to understanding nutritional supplements at a deeper level. Clinical studies on supplement ingredients can be accessed in many ways, from visiting a local University library to using an online database such as PubMed. (See last page to learn more about using the PubMed database.) Some useful studies on traditional **Chinese and Ayurvedic herbs** are noted below.

Chinese Herbs: ASTRAGALUS, LIGUSTRUM, SCHIZANDRA

J Biol Response Mod 1983;2(3):227-37

Preliminary observations on the effects of the Chinese medicinal herbs Astragalus membranaceus and Ligustrum lucidum on lymphocyte blastogenic responses.

Sun Y, Hersh EM, Lee SL, McLaughlin M, Loo TL, Mavligit GM

Cancer 1983 Jul 1;52(1):70-3

Immune restoration and/or augmentation of local graft versus host reaction by traditional Chinese medicinal herbs.

Sun Y, Hersh EM, Talpaz M, Lee SL, Wong W, Loo TL, Mavligit GM

University of Texas System Cancer Center, M. D. Anderson Hospital and Tumor Institute, College Station, Texas

J Urol 1991 Aug; 146(2):486-90

Chinese medicinal herbs reverse macrophage suppression induced by urological tumors.

Rittenhouse JR, Lui PD, Lau BH

Department of Urology, School of Medicine, Loma Linda University, California 92350

Chung Hsi I Chieh Ho Tsa Chih 1990 Jan;10(1):34-6,5

[F3, a fractionated extract of Astragalus membranaceus, potentiates lymphokine-activated killer cell cytotoxicity generated by low-dose recombinant interleukin-2].

Chu D, Sun Y, Lin J, Wong W, Mavligit G

Cancer Institute and Hospital, Chinese Academy of Medical Sciences, Beijing

Immunopharmacology 1990 Nov-Dec;20(3):225-33

Enhancement of the immune response in mice by Astragalus membranaceus extracts.

Zhao KS, Mancini C, Doria G

Laboratory of Pathology, ENEA C.R.E., Rome, Italy

Altern Med Rev 1998 Oct;3(5):338-44

Chinese herbs: a clinical review of Astragalus, Ligusticum, and Schizandrae.

Sinclair S

Green Valley Health, 1305 Pennsylvania Ave, Hagerstown, MD 21742, USA

Chem Pharm Bull, 1995 43(1):121-9

Structure determination of biliary metabolites of schizandrin in rat and dog.

Ikeya Y, Sugama K, Tanaka M, Wakamatsu T, Ono H, Takeda S, Oyama T, Maruno M

Tsumura Cent. Res. Lab., Tsumura & Co., Ibaraki, Japan 300-11

Planta Med 1995 61(5):398-401

Effect of Schizandrin B on hepatic glutathione antioxidant system in mice: protection against carbon tetrachloride toxicity.

Ip SP, Poon MKT, Wu SS, Che CT, Ng KH, Kong YC, Ko KM

Department of Biochemistry, the Hong Kong University of Science and Technology, Kowloon, Hong Kong

Jpn J Pharmacol 1995, 69(4):439-42

Enhancement of hepatic glutathione regeneration capacity by a lignan-enriched extract of Fructus schisandrae in rats.

Ko K-M, Mak D, Li P-C, Poon M, Ip S-P

Dep. Biochem., Hong Kong Univ. of Sci. & Tech., Clear Water, Hong Kong

Biol Pharm Bull 1995 18(10):1443-5

Effects of gomisin A on the promoter action and serum bile acid concentration in hepatocarcinogenesis induced by 3'-methyl-4-dimethylamino-azobenzene.

Miyamoto K, Hiramatsu K, Ohtaki Y, Kanitani M, Nomura M, Aburada M

Faculty of Pharmaceutical Sciences, Hokuriku Univ., Kanazawa, Japan 920-11

(CHINESE HERBS CONT'D)

Eur J Drug Metab Pharmacokinet 1993 18(2):155-60
Aspects of schizandra metabolism in vitro and in vivo.

Cui Y, Wang M
Inst. Mater. Med., Chin. Acad. Med. Sci., Beijing, Peop. Rep. China
100050

Biomed Res 1995 16(1):43-50
Effects of gomisin A on rat liver regeneration after partial hepatectomy in reference to c-myc and c-fos product levels.

Hirofani Y, Kurokawa N, Takashima N, Sawada M, Iguchi K, Yanaihara N, Iwasaki M, Aburada M, et al.
Lab. Pharmaceutical Sci., Osaka Univ. Sch. Med., Osaka, Japan 565

Planta Med 1993 61(2):134-7
Effect of a lignan-enriched Fructus Schisandrae extract on hepatic glutathione status in rats: protection against carbon tetrachloride toxicity.

Ko KM, Ip SP, Poon MKT, Wu SS, Che CT, Ng KH, Kong YC
Dept. Biochem., Hong Kong Univ. Sci. & Tech., Kowloon, Hong Kong

Phytother Res 1995 9(3):203-6
Schisandra chinensis-derived antioxidant activities in Shengmai San, a compound formulation, in vivo and in vitro.

Ko KM, Yick PK, Poon MKT, Che CT, Ng KH, Kong YC
Department of Biochemistry, Hong Kong Univ. of Science & Tech., Clear Water Bay, Hong Kong

J Appl Toxicol 1993 13(6):385-8
Inhibitory effect of Gomisi on reductive metabolism of halothane.

Ni J, Fujii K, Sato N, Yuge O
Sch. Med., Hiroshima Univ., Hiroshima, Japan 734

Ayurvedic Herbs: AMLA (EMBLICA), ASHWAGANDHA, TRIPHALA

Eur J Clin Nutr 1988 Nov;42(11):939-44
Effect of the Indian gooseberry (amla) on serum cholesterol levels in men aged 35-55 years.

Jacob A, Pandey M, Kapoor S, Saroja R
Department of Foods and Nutrition, Lady Irwin College, University of Delhi, New Delhi, India

J Exp Clin Cancer Res 1997 Dec;16(4):365-8
Effect of rasayanas in the inhibition of lung metastasis induced by B16F-10 melanoma cells.

Menon LG, Kuttan R, Kuttan G
Amala Cancer Research Centre, Thrissur, Kerala, India

Indian J Exp Biol 1989 Mar;27(3):207-9
Effect of Emblica officinalis Gaertn. (Indian gooseberry) fruit extract on sodium azide and 4-nitro-o-phenylenediamine induced mutagenesis in Salmonella typhimurium.

Grover IS, Kaur S

Experientia 1985 Mar 15;41(31):423-4
Emblica officinalis reduces serum, aortic and hepatic cholesterol in rabbits.

Thakur CP

J Ethnopharmacol 1999 Feb;64(2):135-9
Medicinal plants from Nepal; II. Evaluation as inhibitors of lipid peroxidation in biological membranes.

Kumar KC S, Muller K
Institute of Pharmacy, University of Regensburg, Germany

J Ethnopharmacol 1998 Sep;62(2):183-93
Screening of some Indian medicinal plants for their antimicrobial properties.

Ahmad I, Mehmood Z, Mohammad F
Department of Agricultural Microbiology, Institute of Agriculture, Aligarh Muslim University, India

Br J Cancer 1997;76(10):1279-83
Dietary chemoprevention of clastogenic effects of 3,4-benzo(a)pyrene by Emblica officinalis Gaertn. fruit extract.

Nandi P, Talukder G, Sharma A
Vivekananda Institute of Medical Sciences, Calcutta, India

J Ethnopharmacol 1994 Dec;44(3):131-5
A comparative pharmacological investigation of Ashwagandha and Ginseng.

Grandhi A, Mujumdar AM, Patwardhan B
Indian Drugs Research Association, Pune

Indian J Exp Biol 1996 Oct;34(10):927-32

Withania somnifera Dunal (Ashwagandha): potential plant source of a promising drug for cancer chemotherapy and radiosensitization.

Devi PU

Department of Radiobiology, Kasturba Medical College, Manipal, India

J Ethnopharmacol 1996 Feb;50(2):69-76

Studies on the immunomodulatory effects of Ashwagandha.

Ziauddin M, Phansalkar N, Patki P, Diwanay S, Patwardhan B

Medinova Diagnostics Center, Indian Drugs Research Association, Pune, India

J Ethnopharmacol 2002 Jul;81(2):155-60

Anti-diabetic activity of medicinal plants and its relationship with their antioxidant property.

Sabu MC, Kuttan R

Amala Cancer Research Centre, Amala Nagar, Kerala Trichur 680 553, India

Indian Drugs 1987 25(6):220-223

Some pharmacological investigations on the alcoholic extract of Triphala alone and in combination with petroleum ether extract of oleo gum resin of Commiphora Mukul.

Sharma JN, et al.

Mol Cell Biochem 2006 Feb;283(1-2):67-74.

Effect of Triphala on oxidative stress and on cell-mediated immune response against noise stress in rats.

Srikumar R, Parthasarathy NJ, Manikandan S, Narayanan GS, Sheeladevi R

Immunology Laboratory, Department of Physiology, Dr ALM.PG. Institute of Basic Medical Sciences, University of Madras, Taramani Campus, Chennai, Tamilnadu, India.

Cancer Lett 2006 Jan 18;231(2):206-14

Potential of traditional ayurvedic formulation, Triphala, as a novel anticancer drug.

Sandhya T, Lathika KM, Pandey BN, Mishra KP.

Radiation Biology and Health Sciences Division, Bhabha Atomic Research Centre, Mumbai 400 085, India

Phytomedicine 2002 Mar;9(2):99-108

The evaluation of the radioprotective effect of Triphala (an ayurvedic rejuvenating drug) in the mice exposed to gamma-radiation.

Jagetia GC, Baliga MS, Malagi KJ, Sethukumar Kamath M
Department of Radiobiology, Kasturba Medical College, Manipal, India. gc.jagetia@kmc.edu

TIPS & GUIDELINES FOR USING PUBMED

PubMed is an online research database. It provides access to literally millions of clinical studies that have been published in selected scientific journals. The PubMed database is part of the National Library of Medicine at the National Institutes of Health.

To research a topic on PubMed, go to: www.pubmed.com. Doing this will redirect you to the site's actual URL: www.ncbi.nlm.nih.gov/entrez/query.fcgi?DB=pubmed. (You may also type the actual URL into your browser – it's just more complicated. Save the page as a bookmark to avoid this step in the future.)

Once on the PubMed site, find the search bar near the top of the page and enter the keywords you desire. Hit the Go button to the right of the search bar (or your "return" key) to bring up studies in the database that are relevant to your search.

TIPS FOR SUCCESSFUL SEARCHING

- **Narrow down your search by entering more than one keyword or phrase.**
- **Surround phrases with quotation marks.** (Example: instead of calcium citrate, type "calcium citrate.")
- **Use commas or the word AND** in upper case letters to separate multiple keywords or phrases. (Example: instead of calcium citrate bone, type in "calcium citrate" AND bone.)
- **To find a specific study whose authors or title are known, include one or more last names** of the authors and a few choice words from the title as keywords. (Note: This is the easiest way to pull up the studies noted in Pioneer's Clinical Study References.)

VIEWING ABSTRACTS VS SUMMARIES

When you hit "Go," studies will be displayed in what is called **summary** form. The summary only provides journal name & volume number, date of publication, author names and title - the same points noted in these clinical reference pages. For information about the study's results and conclusions, you will want to view an **abstract** of the study - a paragraph describing a study's objective, procedure and findings.*

- **To view a single abstract**, click on the authors' names (appearing in blue) in the summary.
- **To view several abstracts**, click in the boxes located to the left of the summaries. Then select "Abstract" from the pull down Display menu (located below the left side of the search bar, under the folder icons).
- **To view additional studies on the same topic**, click on the words "Related Articles" (appearing in blue) located to the right of each study summary or abstract.

*Note: Not all studies on PubMed are available as abstracts, but it is sometimes possible to find the abstract – even the full text – elsewhere on line by entering the title or author in a search engine, such as Google or Dogpile.

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