

## BIBLIOGRAPHY

### Books

- AOAC. Official Methods of Analysis (16<sup>th</sup> edition) The Association of Official Analytical Chemists. AOAC, International Arlington, Virginia, U.S.A., 1995.
- Andersen, O.M. Flavonoids: Chemistry, Biochemistry and Applications. CRC Press, Boca Raton FL. U.S.A., 1973.
- Charnritisen, T., Pongjanta, J. and Chomsree, N. Uses of Makiang. Makiang. Lampang Agricultural Research and Training Center, Bangkok. Thailand, 2002.
- Halliwell, B. and Gutteridge, J.M.C. Role of free radicals and catalytic metal ions in human disease: an overview. In: Packer, L. and Glaze, A.N. eds. *Methods in Enzymology*. Vol. 186: Oxygen radicals in Biological systems, pp. 1-85. San Diogo: Academic Press, U.S.A., 1990.
- Halliwell, B. and Gutteridge, J.M.C. Free radicals in biology and medicine, 3<sup>rd</sup> ed., Oxford University Press, Oxford, UK, 1999.
- Harman, D. Free radical in biology, Academic Press New York, U.S.A, 1982.
- John, P. and Chantaranonthai, P. Myrtaceae. In Santisuk, T. and Larsen K. (eds.), *Flora of Thailand*. Prachachon Co. Ltd, Bangkok, Thailand. 2002.
- Khandelwal, K.R. Practical Pharmacognosy (11<sup>th</sup> edition), Nirali Prakashan, Pune, 2004.
- Noguchi, N. and Niki, E. Chemistry of active oxygen species and antioxidants. In: Papas A.M. (Ed.), *Antioxidant status, Diet, Nutrition, and Health*, CRC Press, Washington D.C., U.S.A., 1999.
- Rastogi, R.P. and Mehrotra, B.N.P. In Compendium of Indian medicinal plants. Vol. II, CDRI and National Institute of Science and Communication, New Delhi, India, 2001.
- Thai Ministry of Public Health. Thai Herbal Pharmacopoeia. Prachachon, Bangkok, Thailand, 1995.
- Thongma, S. Botanical description of Makiang. Makiang. Lampang Agricultural Research and Training Center, Bangkok, 2002.

Wagner, H., Bladt, S. and Zgainski, E.M. Plant Drug Analysis. Springer-Verlag, BerlinHeidelberg-New York-Tokyo, New York, U.S.A.,1984.

World Health Organization. WHO monographs on selected medicinal plants. Malta. WHO Graphics, U.S.A., 1999..

### Articles

Ajay, M. and Mustafa, M.R. Chronic treatment with flavonoids prevents endothelial dysfunction in spontaneously hypertensive rat aorta, J Cardiovasc Pharmacol. 46 (2005): 36–40.

Anjaneyulu, M. and Chopra, K. Quercetin, an anti-oxidant bioflavonoid, attenuates diabetic nephropathy in rats. Clin Exp Pharmacol Physiol. 31 (2004): 244–248.

Arusa, C., Maxine, M.T. and Ronald, E.W. Characterization and quantification of anthocyanins and polyphenolics in blue honeysuckle (*Lonicera caerulea* L.). J Agric Food Chem. 52(4), (2004): 848 -852.

Babich, H., Krupka, M.E., Nissim, H.A. and Zuckerbraun, H.L. Differential *in vitro* cytotoxicity of (-)-epicatechin gallate (ECG) to cancer and normal cells from the human oral cavity. Toxicology in Vitro. 19 (2005): 231–242

Benzie, I.F.F. Evolution of antioxidant defence mechanisms. European J of Nutrition. 39 (2000): 53-61.

Chen, P.N., Chu, S.C., Chiou, H.L., Chiang, C.L., Yang, S.F. and Hsieh, Y.S.

Cyanidin 3-glucoside and peonidin 3-glucoside inhibit tumor cell growth and induce apoptosis *in vitro* and suppress tumor growth *in vivo*. Nutrition and cancer. 53(2), (2005): 232–243

Chen, P.N., Chu, S.C., Chiou, H.L., Kuo W.H. and Chiang, C.L. Mulberry anthocyanins, cyanidin 3-rutinoside and cyanidin 3-glucoside, exhibited an inhibitory effect on the migration and invasion of a human lung cancer cell line. Cancer Lett. 56 (2006): 29-37

Chen, Y.T., Zheng, R.L., Jia, Z.J. and Ju, Y. Flavonoids as superoxide scavengers and antioxidants, Free Radic Biol Med. 9 (1990): 19–21.

Chun-Lin, Y., Jian-Wen, L., Dong-Zhi, W., Yan-Hua, L. and Feng, Q. In vitro anti-tumor activity of 2,4-dihydroxy-6-methoxy-3,5-dimethylchalcone against six

- established human cancer cell lines. Pharmacological Research. 50 (2004): 505–510.
- Chun-Lin, Y., Yan-Hua, L. and Dong-Zhi, W. Flavonoids from *Cleistocalyx operculatus*. Phytochemistry. 65 (2004): 445–447.
- Coskun, O., Kanter, M., Korkmaz, A. and Oter, S. Quercetin, a flavonoid antioxidant, prevents and protects streptozotocin-induced oxidative stress and beta-cell damage in rat pancreas. Pharmacol Res. 51 (2005): 117–123.
- Doll, R. and Peto, R. The causes of cancer: quantitative estimates of avoidable risks. Cancer Causes Control. 3(1), (1992): 49–55
- Ekta, K. K. Nutraceutical-Definition and Introduction. AAPS Pharm Sci. 5 (3), (2003): Article 25.
- Emma, C., Juan, C.E. And Francisco A.T.N. Varietal differences among the polyphenol profiles of seven table grape cultivars studied by LC-DAD-MS-MS. J Agric Food Chem. 50 (2002): 5691-5696.
- Fang, Y.Z., Yang, S. and Wu, G. Free radicals, antioxidants, and nutrition. Nutrition. 18 (2002): 872-879.
- Farrukh, A., Iqbal, A. and Zafar, M. Antioxidant and free radical scavenging properties of twelve traditionally used Indian medicinal plants. Turk J Biol. 30 (2006): 177-183.
- Formica, J.V. and Regelson, W. Review of the biology of quercetin and related bioflavonoids. Food Chem Toxicol. 33(12), (1995): 1061–1080
- Frankel, E.N., Kanner, J., German, J.B., Parks, E. and Kinsella, J.E. Inhibition of oxidation of human low-density lipoprotein by phenolic substances in red wine. The Lancet. 341 (1993): 454–457.
- Fuhrman, B., Lavy, A. and Aviram, M. Consumption of red wine with meals reduces the susceptibility of human plasma and low-density lipoprotein to lipid peroxidation. Am J Clin Nutr. 61 (1995): 549–554.
- Gan, F. and Ye, R. New approach on similarity analysis of chromatographic fingerprint of herbal medicine. J Chromatogr A. 1104 (2006): 100-105.
- Gaspar, J., Laires, A., Monteiro, M., Laureano, O., Ramos, E. and Rueff, J. Quercetin and the mutagenicity of wine. Mutagenesis. 8(1), (1993): 51–55.

- Goodwin, J.S. and Brodwick, M. Diet, aging, and cancer. Clinics in Geriatric Medicine. 11 (1995): 577–589.
- Harman, D.. Aging: a theory based on free radical and radiation chemistry. Journal of Gerontology. 11(3), (1956): 298-300
- Hertog, M.G.L., Hollman, P.C.H., Katan, M.B., Kromhout, D. Intake of potentially anticarcinogenic flavonoids and their determinants in adults in the Netherlands. Nutr Cancer. 20 (1993): 21–29
- Hopia, A.I., Kahkonen, M.P., Vuorela, H.J., Rauha, J., Pihlaja, K., Kujala, T.S. and Heinonen, M. Anti-oxidant activity of plant extracts containing phenolic compounds. J Agric Food Chem. 47 (1999): 3954-3962.
- Hu, C., Zawistowski, J., Ling, W. and Kitts, D.D. Black rice (*Oryza sativa* L. indica) pigmented fraction suppresses both reactive oxygen species and nitric oxide in chemical and biological model systems. J Agric Food Chem. 51 (2003): 5271–5277
- Hyun, J.W. and Chung, H.S. Cyanidin and malvidin from *Oryza sativa* CV.Heugjinjubyeo mediate cytotoxicity against human monocytic leukemia cells by arrest of G2/M phase and induction of apoptosis. J Agric Food Chem. 52 (2004): 2213–2217.
- Ines, U. and Federico, L. Plant Polyphenol Antioxidants and Oxidative Stress. Biol Res.33(2), (2000).
- Jacob, R.A. and Burri, B.J. Oxidative damage and defense. American Journal of Clinical Nutrition. 63 (1996): 985S–990S.
- Jomduang, S. and Bunthawong, O. Comparison of processing and quality characteristics of instant making produced by coated sugar with making juice and foam-mat methods. Food. 35(4), (2005): 313-321.
- Jones, G.R. Cancer destruction *in vivo* through disrupted energy metabolism. Part II. Lipid peroxidation and cell death; drug resistance as a consequence of reversible cellular injury. Physiol Chem Phy Med NMR. 24(3), (1992): 181-194.
- Keawpradub, N., Houghton, P.J., Eno-Amooguaye, E. and Burke, P.J. Activity of extracts and alkaloids of Thai *Alstonia* species against human lung cancer cell lines. Planta Med. 63 (1997): 97-101.

- Kelly, F.J. Use of antioxidants in the prevention and treatment of disease. Journal of International Food Chemistry. 10 (1998): 21–23.
- Knekt, P., Jarvinen, R., Reunanen, A. and Maatela, J. Flavonoid intake and coronary mortality in Finland: a cohort study. British Journal of Medicine. 312 (1996): 478–481.
- Kohli, K.R. and Singh, R.H. A clinical trial of jambu (*Eugenia jambolana*) in non-insulin dependant diabetes mellitus. Journal of research in ayurveda and siddha. 14(3-4), (1993): 89-97.
- Kurt, A.R., Alison, M.W., Seiji, A., Roberto, R.G., Hui, Y., Margaret, J.B., Jeanine, A., Bernard, W. and Edward, J.K. Bioactive Depsides and Anthocyanins from Jaboticaba (*Myrciaria cauliflora*). J Nat Prod. 69 (2006): 1228-1230
- Leong, L.P. and Shui, G. An investigation of antioxidant capacity of fruits in Singapore markets. Food Chemistry. 76 (2002): 69–75.
- Luo, X.D., Basile, M.J. and Kennelly, E.J. Polyphenolic antioxidants from the fruits of *Chrysophyllum cainito* L. (star apple). J Agric Food Chem. 50 (2002): 1379–1382.
- Maisuthisakul, P., Suttajit, M. and Pongsawatmanit, R. Assessment of phenolic content and free radical-scavenging capacity of some Thai indigenous plants. Food Chemistry. 100(4), (2006): 1409-1418.
- Marie-Eve, B., Jean, L., Serge, L. and André, P. A new labdane diterpene from the flowers of *Solidago Canadensis*. Chem Pharm Bull. 56(1), (2008): 82—84.
- Marzouk, M.S., Soliman, F.M., Shehata, I.A., Rabee, M. and Fawzy, G.A. Flavonoids and biological activities of *Jussiaea repens*. Natural Product Research. 21(5), (2007): 436–443
- Mates, J.M. and Sanchez-Jimenez, F.M. Role of reactive oxygen species in apoptosis: implications for cancer therapy. Int J Biochem Cell Biol. 32(2), (2000): 157–170
- Miwa, N., Yamazaki, H. and Ikari, Y. Enhancement of ascorbate cytotoxicity by chelation with ferrous ions through prolonged duration of the action. Anticancer Res. 6(5), (1986): 1033-6.

- Paul, E.M, Chung, Y.C., Gregory, G.D. and Jeffrey, B.B. Determination of Flavonoids and Phenolics and Their Distribution in Almonds. J Agric Food Chem, 54(14), (2006): 5027 -5033.
- Pendl, R., Bauer, M., Caviezel, R. and Schulthess, P. Determination of Total Fat in Foods and Feeds by the Caviezel Method, Based on a Gas Chromatographic Technique, J AOAC Int. 81(1998): 907–917.
- Qingguo, T.M., Monica, G., Gary, D.S, Steven, J.S. Characterization of a new anthocyanin in black raspberries (*Rubus occidentalis*) by liquid chromatography electrospray ionization tandem mass spectrometry. Food Chemistry. 94 (2006): 465–468
- Rajasekaran, M., Bapana, J.S., Lakshmanan, S., Ramchandran, A.G., Veliath, A.J. and Panchanadam, M. Antifertility effect in male rats of oleanolic acid, a triterpene from *Eugenia jambolana* flowers. Journal of Ethnopharmacology. 24(1), (1988): 115-21.
- Ramirez, R.O. and Roa, C.C.Jr. The gastroprotective effect of tannins extracted from duhat (*Syzygium cumini* Skeels) bark on HCl/ethanol induced gastric mucosal injury in Sprague-Dawley rats. Clin Hemorheol Microcirc. 29(3-4), (2003): 253-61.
- Robak, J. and Gryglewski, R.J. Flavonoids are scavengers of superoxide anions. Biochemic. Pharmacol. 37(5), (1988): 837–841.
- Robert, Y., Shinji, T. and Naofumi M. Identification of phenolic compounds isolated from pigmented rices and their aldose reductase inhibitory activities. Food Chemistry. 101 (2007): 1616–1625.
- Roghani, M., Baluchnejadmojarad, T., Vaez-Mahdavi, M.R. and Roghani-Dehkordi, F. Mechanisms underlying quercetin-induced vasorelaxation in aorta of subchronic diabetic rats: an in vitro study. Vascular Pharmacol. 42 (2005): 31–35.
- Sagrawat, H., Mann, A.S. and Kharya, M.D. Pharmacological potential of *Eugenia jambolana*: A review, Pharmacognosy Magazine. 2(6), (2006): 96-105
- Schmidt, R.J., Chung, L.Y., Andrews, A.M. and Turner, T.D. Toxicity of L-ascorbic acid to L929 fibroblast cultures: relevance to biocompatibility testing of

- materials for use in wound management. J Biomed Mater Res. 27(4), (1993): 521-30
- Sirikatitham, A., Chuchom, T. and Itharat, A. Development of the chromatographic fingerprint analysis of dioscorealides and dioscoreanone from *Dioscorea membranacea* Pierre. Songklanakarinn J Sci Technol. 29(1), (2007): 101-107.
- Skehan, P., Storeng, R., Scudiero, D., Monks, A., McMahan, J., Vistica, D., Warren, J.T., Bokesch, H., Kenney, S., Boyd, M.R. J Natl Cancer Inst. 82 (1990): 1107-1112.
- Sriwanthana, B., Treesangsri, W., Boriboontrakul, B., Niumsakul, S., and Chavalittumrong, P. In vitro effects of Thai medicinal plants on human lymphocyte activity. Songklanakarinn J Sci Technol. 29(1), (2007): 17-28.
- Swayamjot, K., Husheem, M., Saroj, A., Pirkko, L.H. and Subodh, K. The *in vitro* cytotoxic and apoptotic activity of Triphala—an Indian herbal drug. Journal of Ethnopharmacology. 97 (2005): 15–20
- Toshiro, W., Akira, Y., Shiro, N. and Shikeru, T. Analysis of elderberry in commercial food sample by micellar electrokinetic chromatography. Analytical science. 14 (1998): 839-844.
- Uchiyama, M. and Mihara, M. Determination of malondialdehyde precursor in tissues by thiobarbituric acid test. Anal Biochem. 86 (1978): 271–278.
- Vessal, M., Hemmati, M. and Vasei, M. Antidiabetic effects of quercetin in streptozotocin-induced diabetic rats. Comp Biochem Physiol. 135 (2003): 357–364.
- Wang, H., Cao, G. and Prior, R. Oxygen radical absorbing capacity of anthocyanins. J Agric Food Chem. 45 (1997): 304–309.
- Wang, Y.F., Cao, J.X., Efferth, T., Lai, G.F. and Luo, S.D. Cytotoxic and new tetralone derivatives from *Berchemia floribunda* (Wall.) Brongn. Chem Biodivers. 3(6), (2006): 646-53.
- Weecharangsan, W. and Opanasopit, P. An overview of free radicals and in vitro antioxidant activity tests in plant extracts. SWU J Pharm Sci. 9(1), (2004): 73-80.

- Wei, Y.H. and Lee, H.C. Oxidative Stress, Mitochondrial DNA Mutation, and Impairment of Antioxidant Enzymes in Aging. *Experimental Biology and Medicine*. 227 (2002): 671-682.
- AnthonyWoo, A.Y.H.W., Mary, M.Y.W., Kwanc H.S., Melanie, C.Y.C., Chaua, C.F. and Christopher, H.K.C. Inhibition of ATPases by *Cleistocalyx operculatus*, A possible mechanism for the cardiogenic actions of the herb. *Vascular Pharmacology*. 38 (2002): 163– 168.
- Xiao-Feng, Z., Bin-Fen, X., Jun-Min, Z., Gong-Kan, F., Zong-Chao, L., Xiao-Yi, W., Feng-Xian, Z., Mei-Fang, L. and Yi-Xin, Z. Blockade of vascular endothelial growth factor receptor signal pathway and antitumor activity of ON-III (2,4-Dihydroxy-6-methoxy-3,5-dimethylchalcone), a component from Chinese Herbal Medicine. *Mol Pharmacol*. 67 (2005): 1444–1450.
- Yamasaki, T., Li, L., Lau, B. Garlic compounds protect vascular endothelial cells from hydrogen peroxide-induced oxidant injury. *Phytother Res*. 8 (1994): 408-412.
- Youdim, K.A. and Joseph, J.A. A possible emerging role of phytochemicals in improving age-related neurological dysfunctions: a multiplicity of effects. *Free Radical Biology and Medicine*. 30 (2001): 583–594.
- Zsuzsanna, H., Marek, M. and Philipp, S. Cytotoxic and biochemical effects of 3,3',4,4',5,5'-hexahydroxystilbene, a novel resveratrol analog in HL-60 human promyelocytic leukemia cells. *Experimental Hematology*. 34 (2006): 1377–1384

### **Other Materials**

- Khemsawat, W., Pittaya, C., Rachaphol, T., and Wachira, J. Antioxidant properties of fresh ma-kiang fruit during chilling storage. Online, [http://www.irpus.org/project\\_file/2548\\_2006-08-25\\_R14803003.pdf](http://www.irpus.org/project_file/2548_2006-08-25_R14803003.pdf), November 2006.
- Koseywattana, I. Quality control of food supplement products and cosmetics from herbs. 4<sup>th</sup> National Seminar on Pharmaceutical Biotechnology. Chiang Mai, Thailand, 3-5 September 2002.



- Leelapornpisit, P., Khansuwan, U., Kittipongpattana, N. and Rojanakul, J. Chemical properties and antioxidant activities of Makiang seed extract for functional food and cosmetic used. Research and Development of Functional Food Products Symposium II. Chiang Mai, Thailand, 2004.
- Liawruangrath, B., Liawruangrath, S., Thongchai, W. and Machan, T. Determination of malic acid and citric acid in ripe berries of *Eugenia paniaia* Roxb. by high performance liquid chromatography. 31<sup>st</sup> Congress on Science and Technology of Thailand, 18 - 20 October 2005.
- Office of industrial economic. Online <http://www.oie.go.th/Benchmarking/2546/Med/PDF/Executive.pdf>, October 2003.
- Ronald, E.W. Current Protocols in Food Analytical Chemistry; Characterization and Measurement of Anthocyanins by UV-Visible Spectroscopy, Online, <http://www.wiley.com/legacy/cp/cpfac/facsample.htm>, October 2001.
- Sirimerngmoon, A., Sookchai, R., Sirawatanawong, N. and Jiratanarangsri, W. Effect of heat processing on the antioxidant properties of ma-kiang juice. Online, [http://www.irpus.org/project\\_file/2548\\_2006-08-25\\_R14803003.pdf](http://www.irpus.org/project_file/2548_2006-08-25_R14803003.pdf) 10 November 2006.
- Taweeporn, U. (1987). Chemical analysis of ripe berries of *Eugenia paniaia* Roxb. (Myrtaceae). Faculty of graduated student, Chiangmai university, Chiang Mai, Thailand.
- The European Agency for the evaluation of medicinal products. Guideline for stability testing: stability testing of existing active substances and related finished products. Online, <http://www.emea.eu.int/pdfs/human/qwp/012202en.pdf>, February 2003.
- WHO. General guidelines for methodologies on research and evaluation of traditional medicine. WHO Consultation on Methodologies for Research and Evaluation of Traditional Medicine, Hong Kong Special Administrative Region of China, 11-14 April (2000): 1-74.