

Reference

1. Umezawa K, Matsushima T, Sugimura T, Hiakawa T, Tanaka M, Katoh Y et al. In vitro transformation of hamster embryo cells by quercetin. *Toxicol Lett* 1977;175-178.
2. <http://www.geocities.com/thaidentist2000/oralcancer.htm>
3. Parkin, D.M., F.I. Bray, and S.S. Devesa, Cancer burden in the year 2000. The global picture. *Eur J Cancer*, 2001. 37 Suppl 8: p. S4-66.
4. Sankaranarayanan, R., A.M. Budukh, and R. Rajkumar, Effective screening programmes for cervical cancer in low- and middle-income developing countries. *Bull World Health Organ*, 2001. 79(10): p. 954-62.
5. Thomas, D.B., et al., Human papillomaviruses and cervical cancer in Bangkok. III. The role of husbands and commercial sex workers. *Am J Epidemiol*, 2001. 153(8): p. 740-8.
6. <http://www.WHO.com>
7. Verweij, J. and M.J. de Jonge, Achievements and future of chemotherapy. *Eur J Cancer*, 2000. 36(12): p. 1479-87.
8. <http://www.oncolink.com>
9. Witteveen, P.O., et al., Update on the treatment of advanced cervical cancer. *Crit Rev Oncol Hematol*, 2002. 43(3): p. 245-56.
10. <http://www.biopathic.com/castoverview/htm>
11. <http://www.pharmacology.unmc.edu/cancer>
12. Wagner, D., et al., Intestinal drug efflux: formulation and food effects. *Adv Drug Deliv Rev*, 2001. 50 Suppl 1: p. S13-31.
13. Willemse, P.H., et al., Treatment of cervical cancer. *Lancet*, 2002. 359(9303): p. 357-8.
14. Larsen, A.K., A.E. Escargueil, and A. Skladanowski, Resistance mechanisms associated with altered intracellular distribution of anticancer agents. *Pharmacol Ther*, 2000. 85(3): p. 217-29.

15. Sharom, F.J., et al., Insights into the structure and substrate interactions of the P-glycoprotein multidrug transporter from spectroscopic studies. *Biochim Biophys Acta*, 1999. 1461(2): p. 327-45.
16. Varma MV, Ashokraj Y, Dey CS, Panchagnula R. P-glycoprotein inhibitors and their screening: a perspective from bioavailability enhancement. *Pharmacol Res* 2003; 48(4):347-359.
17. Jilka, C., et al., In vivo antitumor activity of the bitter melon (*Momordica charantia*). *Cancer Res*, 1983. 43(11): p. 5151-5
18. Singh, A., S.P. Singh, and R. Bamezai, *Momordica charantia* (Bitter Gourd) peel, pulp, seed and whole fruit extract inhibits mouse skin papillomagenesis. *Toxicol Lett*, 1998. 94(1): p. 37-46.
19. Shi, H., et al., Antioxidant property of Fructus *Momordicae* extract. *Biochem Mol Biol Int*, 1996. 40(6): p. 1111-21.
20. Lee-Huang, S., et al., Anti-HIV and anti-tumor activities of recombinant MAP30 from bitter melon. *Gene*, 1995. 161(2): p. 151-6.
21. Grover, J.K., et al., Traditional Indian anti-diabetic plants attenuate progression of renal damage in streptozotocin induced diabetic mice. *J Ethnopharmacol*, 2001. 76(3): p. 233-8.
22. Sitasawad, S.L., Y. Shewade, and R. Bhonde, Role of bittergourd fruit juice in stz-induced diabetic state in vivo and in vitro. *J Ethnopharmacol*, 2000. 73(1-2): p. 71-9.
23. Hamato, N., et al., Trypsin and elastase inhibitors from bitter gourd (*Momordica charantia* LINN.) seeds: purification, amino acid sequences, and inhibitory activities of four new inhibitors. *J Biochem (Tokyo)*, 1995. 117(2): p. 432-7.
24. Cunnick, J.E., et al., Induction of tumor cytotoxic immune cells using a protein from the bitter melon (*Momordica charantia*). *Cell Immunol*, 1990. 126(2): p. 278-89.
25. Pongnikorn, S., et al., Effect of bitter melon (*Momordica charantia* Linn) on level and function of natural killer cells in cervical cancer patients with radiotherapy. *J Med Assoc Thai*, 2003. 86(1): p. 61-8.

26. Giaccone, G. and H.M. Pinedo, Drug Resistance. *Oncologist*, 1996. 1(1 & 2): p. 82-87.
27. Goldstein, L.J., MDR1 gene expression in solid tumours. *Eur J Cancer*, 1996. 32A(6): p. 1039-50.
28. Broxterman HJ, Lankelma J, Hoekman K. Resistance to cytotoxic and anti-angiogenic anticancer agents: similarities and differences. *Drug Resist Updat* 2003; 6(3):111-127.
29. Roninson, I.B., The role of the MDR1 (P-glycoprotein) gene in multidrug resistance in vitro and in vivo. *Biochem Pharmacol*, 1992. 43(1): p. 95-102.
30. Duhem, C., F. Ries, and M. Dicato, What Does Multidrug Resistance (MDR) Expression Mean in the Clinic? *Oncologist*, 1996. 1(3): p. 151-158.
31. Stavrovskaya, A.A., Cellular mechanisms of multidrug resistance of tumor cells. *Biochemistry (Mosc)*, 2000. 65(1): p. 95-106.
32. Schinkel, A.H. and J.W. Jonker, Mammalian drug efflux transporters of the ATP binding cassette (ABC) family: an overview. *Adv Drug Deliv Rev*, 2003. 55(1): p. 3-29.
33. http://www.abpi.org.uk/publications/publication_details/targetCancer/sectiond.asp
34. Sauna, Z.E., et al., The mechanism of action of multidrug-resistance-linked P-glycoprotein. *J Bioenerg Biomembr*, 2001. 33(6): p. 481-91.
35. Lehnert, M., Clinical multidrug resistance in cancer: a multifactorial problem. *Eur J Cancer*, 1996. 32A(6): p. 912-20.
36. Germann, U.A., I. Pastan, and M.M. Gottesman, P-glycoproteins: mediators of multidrug resistance. *Semin Cell Biol*, 1993. 4(1): p. 63-76.
37. Sharom, F.J., The P-glycoprotein efflux pump: how does it transport drugs? *J Membr Biol*, 1997. 160(3): p. 161-75.
38. Gottesman, M.M., I. Pastan, and S.V. Ambudkar, P-glycoprotein and multidrug resistance. *Curr Opin Genet Dev*, 1996. 6(5): p. 610-7.
39. Sukhai, M. and M. Piquette-Miller, Regulation of the multidrug resistance genes by stress signals. *J Pharm Pharm Sci*, 2000. 3(2): p. 268-80.
40. Lin, J.H., Drug-drug interaction mediated by inhibition and induction of P-glycoprotein. *Adv Drug Deliv Rev*, 2003. 55(1): p. 53-81.

41. Fromm, M.F., Genetically determined differences in P-glycoprotein function: implications for disease risk. *Toxicology*, 2002. 181-182: p. 299-303.
42. Chan, H.S., et al., Diagnosis and reversal of multidrug resistance in paediatric cancers. *Eur J Cancer*, 1996. 32A(6): p. 1051-61.
43. Biedler, J.L., Genetic aspects of multidrug resistance. *Cancer*, 1992. 70(6 Suppl): p. 1799-809.
44. Bosch, I. and J. Croop, P-glycoprotein multidrug resistance and cancer. *Biochim Biophys Acta*, 1996. 1288(2): p. F37-54.
45. Fisher, G.A., et al., Pharmacological considerations in the modulation of multidrug resistance. *Eur J Cancer*, 1996. 32A(6): p. 1082-8.
46. Hirose, M., Biology and modulation of multidrug resistance (MDR) in hematological malignancies. *Int J Hematol*, 2002. 76 Suppl 2: p. 206-11.
47. Abraham, E.H., et al., The multidrug resistance (mdr1) gene product functions as an ATP channel. *Proc Natl Acad Sci U S A*, 1993. 90(1): p. 312-6.
48. Stouch, T.R. and O. Gudmundsson, Progress in understanding the structure-activity relationships of P-glycoprotein. *Adv Drug Deliv Rev*, 2002. 54(3): p. 315-28.
49. Germann, U.A., P-glycoprotein--a mediator of multidrug resistance in tumour cells. *Eur J Cancer*, 1996. 32A(6): p. 927-44.
50. Ambudkar, S.V., et al., Biochemical, cellular, and pharmacological aspects of the multidrug transporter. *Annu Rev Pharmacol Toxicol*, 1999. 39: p. 361-98.
51. Hrycyna, C.A., Molecular genetic analysis and biochemical characterization of mammalian P-glycoproteins involved in multidrug resistance. *Semin Cell Dev Biol*, 2001. 12(3): p. 247-56
52. Fardel, O., V. Lecureur, and A. Guillouzo, The P-glycoprotein multidrug transporter. *Gen Pharmacol*, 1996. 27(8): p. 1283-91.
53. Teodori, E., et al., The medicinal chemistry of multidrug resistance (MDR) reversing drugs. *Farmaco*, 2002. 57(5): p. 385-415.
54. Loo R F, Tiberghien F, Wenandy T, Didier A, Traber R. Cyclosporins: structure-activity relationships for the inhibition of the human MDR1 P-glycoprotein ABC transporter. *J Med Chem* 2002; 45(21):4598-4612.

55. Ling, V., P-glycoprotein: its role in drug resistance. *Am J Med*, 1995. 99(6A): p. 31S-34S
56. Fromm, M.F., The influence of MDR1 polymorphisms on P-glycoprotein expression and function in humans. *Adv Drug Deliv Rev*, 2002. 54(10): p. 1295-310.
57. Clynes, M., et al., Recent developments in drug resistance and apoptosis research. *Crit Rev Oncol Hematol*, 1998. 28(3): p. 181-205
58. Tamai, I. and A.R. Safa, Azidopine noncompetitively interacts with vinblastine and cyclosporin A binding to P-glycoprotein in multidrug resistant cells. *J Biol Chem*, 1991. 266(25): p. 16796-800.
59. Lo, Y., F. Liu, and J. Cherng, Effect of PSC 833 liposomes and Intralipid on the transport of epirubicin in Caco-2 cells and rat intestines. *J Control Release*, 2001. 76(1-2): p. 1-10.
60. Ferry, D.R., H. Traunecker, and D.J. Kerr, Clinical trials of P-glycoprotein reversal in solid tumours. *Eur J Cancer*, 1996. 32A(6): p. 1070-81.
61. Krishna, R. and L.D. Mayer, Multidrug resistance (MDR) in cancer. Mechanisms, reversal using modulators of MDR and the role of MDR modulators in influencing the pharmacokinetics of anticancer drugs. *Eur J Pharm Sci*, 2000. 11(4): p. 265-8.
62. Cornwell, M.M., I. Pastan, and M.M. Gottesman, Certain calcium channel blockers bind specifically to multidrug-resistant human KB carcinoma membrane vesicles and inhibit drug binding to P-glycoprotein. *J Biol Chem*, 1987. 262(5): p. 2166-70.
63. Naito, M. and T. Tsuruo, Competitive inhibition by verapamil of ATP-dependent high affinity vincristine binding to the plasma membrane of multidrug-resistant K562 cells without calcium ion involvement. *Cancer Res*, 1989. 49(6): p. 1452-5.
64. Ford, J.M., Experimental reversal of P-glycoprotein-mediated multidrug resistance by pharmacological chemosensitisers. *Eur J Cancer*, 1996. 32A(6): p. 991-1001.

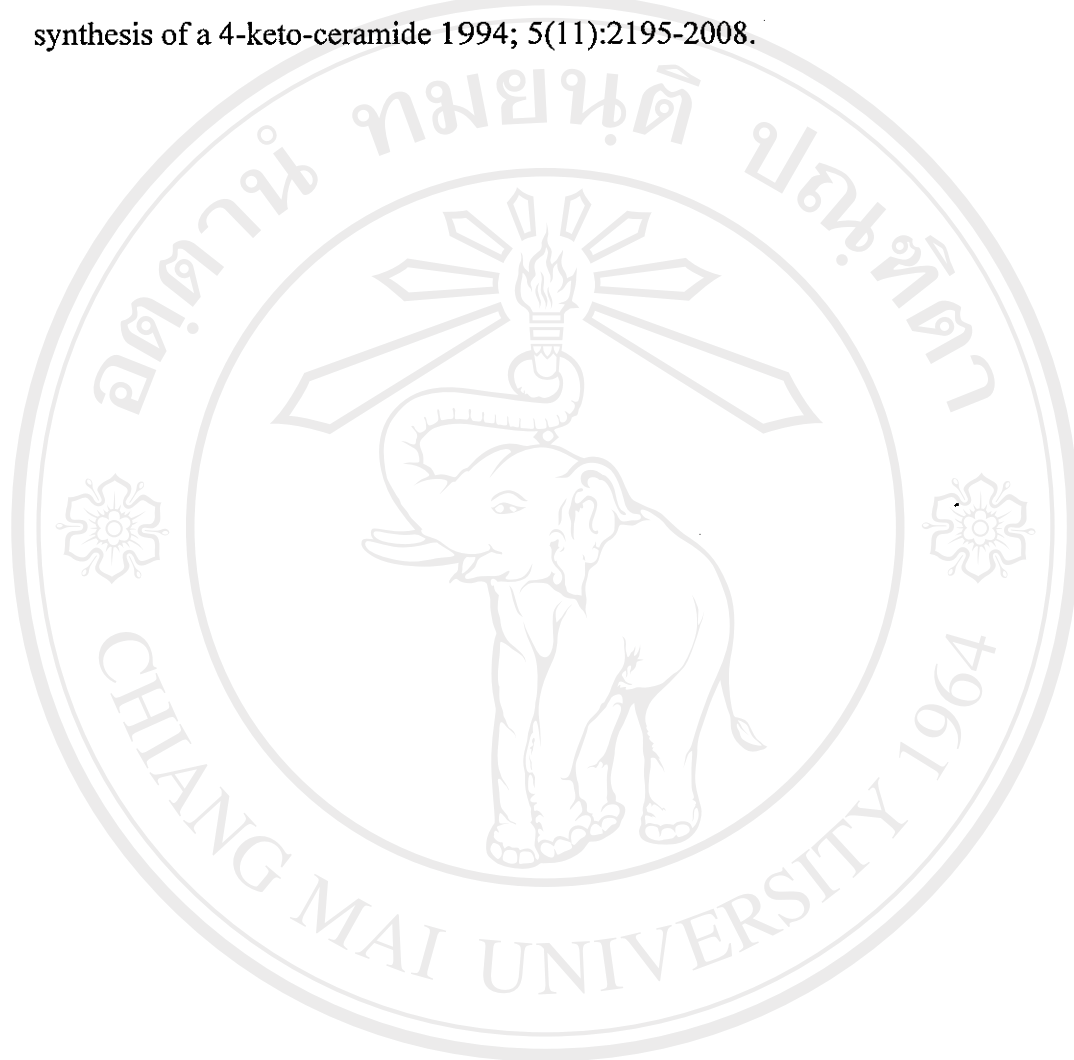
65. Pinedo, H.M. and G. Giaccone, P-glycoprotein--a marker of cancer-cell behavior. *N Engl J Med*, 1995. 333(21): p. 1417-9.
66. Shen, D.W., et al., Human multidrug-resistant cell lines: increased *mdr1* expression can precede gene amplification. *Science*, 1986. 232(4750): p. 643-5.
67. Schoenlein, P.V., et al., Double minute chromosomes carrying the human multidrug resistance 1 and 2 genes are generated from the dimerization of submicroscopic circular DNAs in colchicine-selected KB carcinoma cells. *Mol Biol Cell*, 1992. 3(5): p. 507-20.
68. Shen, D.W., et al., Multiple drug-resistant human KB carcinoma cells independently selected for high-level resistance to colchicine, adriamycin, or vinblastine show changes in expression of specific proteins. *J Biol Chem*, 1986. 261(17): p. 7762-70.
69. Scartezzini, P. and E. Speroni, Review on some plants of Indian traditional medicine with antioxidant activity. *J Ethnopharmacol*, 2000. 71(1-2): p. 23-43.
70. [http:// www. Rain-tree.com/bitter_melon.htm](http://www.Rain-tree.com/bitter_melon.htm)
71. [http:// www. Dweckdata.com/publissshed/Rainforest.htm](http://www.Dweckdata.com/publissshed/Rainforest.htm)
72. <http://herbal.pharmacy.psu.ac.th/Article/07-45/Momordica.htm>
73. <http://www.geocities.co.jp/HeartLand/3007/image/goya-1.jpg>
74. <http://club.euronet.be/luc.pauwels/MomoChar.jpg>
75. Vikrant, V., et al., Treatment with extracts of *Momordica charantia* and *Eugenia jambolana* prevents hyperglycemia and hyperinsulinemia in fructose fed rats. *J Ethnopharmacol*, 2001. 76(2): p. 139-43.
76. Chacko, E., Culture and therapy: complementary strategies for the treatment of type-2 diabetes in an urban setting in Kerala, India. *Soc Sci Med*, 2003. 56(5): p. 1087-98.
77. Grover, J.K., S. Yadav, and V. Vats, Medicinal plants of India with anti-diabetic potential. *J Ethnopharmacol*, 2002. 81(1): p. 81-100.
78. Huang, B., et al., Isolation of a trypsin inhibitor with deletion of N-terminal pentapeptide from the seeds of *Momordica cochinchinensis*, the Chinese drug mubiezhi. *Int J Biochem Cell Biol*, 1999. 31(6): p. 707-15.

79. Au, T.K., et al., The plant ribosome inactivating proteins luffin and saporin are potent inhibitors of HIV-1 integrase. *FEBS Lett*, 2000. 471(2-3): p. 169-72.
80. Leung, S.O., H.W. Yeung, and K.N. Leung, The immunosuppressive activities of two abortifacient proteins isolated from the seeds of bitter melon (*Momordica charantia*). *Immunopharmacology*, 1987. 13(3): p. 159-71.
81. Lee, D.K., et al., Momordins inhibit both AP-1 function and cell proliferation. *Anticancer Res*, 1998. 18(1A): p. 119-24.
82. Vermani, K. and S. Garg, Herbal medicines for sexually transmitted diseases and AIDS. *J Ethnopharmacol*, 2002. 80(1): p. 49-66.
83. Sun, Y., et al., Anti-HIV agent MAP30 modulates the expression profile of viral and cellular genes for proliferation and apoptosis in AIDS-related lymphoma cells infected with Kaposi's sarcoma-associated virus. *Biochem Biophys Res Commun*, 2001. 287(4): p. 983-94.
84. Bourinbaiar, A.S. and S. Lee-Huang, Potentiation of anti-HIV activity of anti-inflammatory drugs, dexamethasone and indomethacin, by MAP30, the antiviral agent from bitter melon. *Biochem Biophys Res Commun*, 1995. 208(2): p. 779-85.
85. Bourinbaiar, A.S. and S. Lee-Huang, The activity of plant-derived antiretroviral proteins MAP30 and GAP31 against herpes simplex virus in vitro. *Biochem Biophys Res Commun*, 1996. 219(3): p. 923-9.
86. Mosmann T, Rapid colorimetric assay for cellular growth and survival : Application to proliferation and cytotoxicity assay. *J Immunol Methods* 1983; 65:55-63.
87. Su WC., et al., Comparison of *in vitro* growth-inhibitory activity of carboplatin and cisplatin on leukemic cells and hematopoietic progenitors: the myelosuppressive activity of carboplatin may be greater than its antileukemic effect. *Jpn J Clin Oncol* 2000; 30(12):562-567.

88. Plouzek CA, Ciolino HP, Clarke R, Yeh GC. Inhibition of P-glycoprotein activity and reversal of multidrug resistance *in vitro* by rosemary extract. *Eur J Cancer* 1999; 35(10):1541-1545.
89. Kawai K, Kamatani K, Georges E, Ling V, Identification of a membrane glycoprotein overexpressed in murine lymphoma sublines resistance to cis-diminedichloroplatinum (II). *J Biol Chem* 1990; 265:13137-13142.
90. Laemmli UK, Cleavage of structural proteins during the assembly of the head of bacteriophage T4. *Nature* 1970; 227(259):680-685.
91. Lowry OH, Rosebrough NJ, Lewis Farr A, Randall RJ. Protein measurement with the Folin phenol reagent. *J Biol Chem* 1951; 193:265-275.
92. Chu TM, Lin TH, Kawinski E, Detection of soluble P-glycoprotein in culture media and extracellular fluids. *Biochem Biophys Res Commun* 1994; 203(1):506-512.
93. <http://www.phoenixpeptide.com/images/WesterBlotKits/WBKprotocol.gif>
94. Farnsworth, NR. Biological and Phytochemical Screening of Plants. *J.Pharm. Sci* 1966; 55(3):225-76.
95. Anuchapreeda S, et al., Modulation of P-glycoprotein expression and function by curcumin in multidrug-resistant human KB cells. *Biochem Pharmacol* 2002; 64(4):573-582.
96. Jodoin J, Demeule M, Beliveau R, Inhibition of the multidrug resistance P-glycoprotein activity by green tea polyphenols. *Biochim Biophys Acta* 2002; 1542(1-3):149-159.
97. Romiti N, Tongiani R, Cervelli F, Chieli E, Effects of curcumin on P-glycoprotein in primary cultures of rat hepatocytes. *Life Sci* 1998; 62(25):2349-2358.
98. Guevara AP, Lim-Sylianco C, Dayrit F, Finch P, Antimutagens from *Momordica charantia*. *Mutat Res* 1990; 230(2):121-126.
99. Shen DW, et al., Human multidrug-resistant cell lines: increased *mdr1* expression can precede gene amplification. *Science* 1986; 232(4750):643-645.

100. Ambudkar SV, et al., Partial purification and reconstitution of the human multidrug-resistance pump: characterization of the drug-stimulatable ATP hydrolysis. *Proc Natl Acad Sci U S A* 1992; 89(18):8472-8476.
101. Gottesman MM, Ambudkar SV. Overview: ABC transporters and human disease. *J Bioenerg Biomembr* 2001; 33(6):453-458.
102. Zhang Y, Bachmeier C, Miller DW. In vitro and in vivo models for assessing drug efflux transporter activity. *Adv Drug Deliv Rev* 2003; 55(1):31-51.
103. Ikegawa T, et al., Inhibition of P-glycoprotein by flavonoid derivatives in adriamycin-resistant human myelogenous leukemia (K562/ADM) cells. *Cancer Lett* 2002; 177(1):89-93.
104. Reddy L, Odhav B, Bhoola KD, Natural products for cancer prevention: a global perspective. *Pharmacol Ther* 2003; 99(1):1-13.
105. Terasaka K, Sakai K, Sato F, Yamamoto H, Yazaki K, *Thalictrum minus* cell cultures and ABC-like transporter. *Phytochemistry* 2003; 62(3):483-489.
106. Chieli E, Romiti N, Cervelli F, Tongiani R, Effects of flavonols on P-glycoprotein activity in cultured rat hepatocytes. *Life Sci* 1995; 57(19):1741-1751.
107. Mitsunaga Y., et al., Effect of bioflavonoids on vincristine transport across blood-brain barrier. *Eur J Pharmacol* 2000; 395(3):193-201.
108. Ikegawa T, et al., Inhibition of P-glycoprotein by orange juice components, polymethoxyflavones in adriamycin-resistant human myelogenous leukemia (K562/ADM) cells. *Cancer Lett* 2000; 160(1):21-28.
109. Boumendjel A., et al., B-ring substituted 5,7-dihydroxyflavonols with high-affinity binding to P-glycoprotein responsible for cell multidrug resistance. *Bioorg Med Chem Lett* 2001; 11(1):75-77.
110. Bois F, et al., Synthesis and biological activity of 4-alkoxy chalcones: potential hydrophobic modulators of P-glycoprotein-mediated multidrug resistance. *Bioorg Med Chem* 1999; 7(12):2691-2695.
111. Jetter R, Riederer M, Seyer A., Mioskowski C, Homologous long-chain alkanediols from *Papaver* leaf cuticular waxes. *Phytochemistry* 1996; 42(6): 1617-1620.

112. Ramanarayan K, et al., Triacantanol inhibits both enzymatic and nonenzymatic lipid peroxidation. *Phytochemistry* 2000; 55(1):59-66.
113. Wild R, Schmidt RR. Sphingosine and phytosphingosine from D-threose synthesis of a 4-keto-ceramide 1994; 5(11):2195-2008.



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