รายการอ้างอิง

- ชัยโย ชัยชาญทิพยุทธ และคณะ. 2522. <u>การใช้ยาสมุนไพร</u>. เล่ม 1. กรุงเทพมหานคร : บริษัท สารมวลชน จำกัด.
- ศุนย์ข้อมูลสมุนไพร คณะเภสัชศาสตร์ มหาวิทยาลัยมหิดล. 2530. <u>ก้าวไปกับสมุนไพร</u>. เล่ม 1. กรุงเทพมหานคร : ธรรมกมลการพิมพ์.
- สันติ ถุงสุวรรณ และคณะ. 2528. <u>รายงานผลการวิจัยฉบับสมบุรณ์ โครงการวิจัยสมุนไพร</u>. กรุงเทพมหานคร : คณะเภสัชศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย.

REFERENCES

- Bell, E. A. and Charlwood, B.V. 1980. <u>Secondary plant products</u>. New York: Springer-Verlag Berlin Heidelberg.
- Berlin, J. 1986. Secondary products from plant cell cultures. <u>Biotechnology</u> 4:630-658.
- Bohm, B.A. and Towers, G.H.N. 1962. A study of phenolic compounds in *Impatiens*.

 Canadian Journal of Botany 40: 677-683.
- Bolkart, K.H. and Zenk, M.H. 1969. Homogentisate pathway in the biosynthesis of 2,7-dimethyl-1,4-naphthoquinone (chimaphilin). Z. Pflanzenphysiol 61:356.
- Boylen, C.W., *et al.* 1969. Differentiation of pigmentation of flower parts. V. partial purification and characterization of a flavonoid-3-β-D-glucosidase from petal of *Impatiens balsamina*. Phytochemistry 8:2311-2315.
- Brockmann, H. 1936. <u>Liebigs Ann. Chem.</u> 521:1.
- Butcher, D.N. and Street, H.E. 1964. Bot. Rev. 30: 513-586.
- Chaleff, R.S. 1983. Isolation of agonomically useful mutants from plant cell cultures.

 Science 219: 676-682.
- Chapelle Jean-Paul. 1974. 2-Methoxy-1,4-naphthoquinone in *Impatiens glandulifera* and related species. Phytochemistry 13:662.
- Charlwood, V.B. and Rhodes, M.J.C. 1990. <u>Physiology of secondary product formation</u> in Plants. Oxford: Clarendon Press.

- _____. 1990. <u>Secondary products from plant tissue culture</u>. Oxford : Clarendon Press.
- Chen, D. and Bohm, B.A. 1966. Naphthoquinone biosynthesis in higher plants. <u>Can. J.</u>
 <u>Biochem</u>, 44: 1966.
- Chilton, M.D. *et al.* 1982. Agrobacterium rhizogenes inserts T-DNA into the genomes of the host plant root cells. <u>Nature</u> 295: 432-434.
- Clevenger, S. 1958. The flavonols of *Impatiens balsamina* L. Archives of Biochemistry and Biophysics 76: 131-138.
- Constabel, F. 1987. <u>Cell culture and somatic cell genetics of plant</u>. Vol. 4. San Diego: Academic Press, Inc.
- Dansette, P. and Azerad, R. 1970. <u>Biochem. Biophys. Res. Commun.</u> 40: 1090.
- Davey, M.R. 1938. Recent development in the culture and regeneration of plant protoplast.

 <u>Experientia Suppl.</u> 46:19-20.
- Dikshit, S.P. 1973. J. Oil Technol. Assoc. India 5:10.
- Durand, R. and Zenk, M.H. 1971. Biosynthesis of plumbagin (5-Hydroxy-2-methyl-1,4-naphthoquinone) *via* the acetate pathway in higher plants. <u>Tetrahedron Letters</u> 32: 3009.
- Eilert, U., Kurz, W.G.W., and Constable, F. 1985. Stimulation of sanguinarine accumulation in *Papaver somniferum* cell cultures by fungal elicitors. <u>J. Plant Physiol.</u> 199: 65-67.
- Farnsworth, N.R. and Cordell, G.A. 1976. A review of some biologically active compounds isolated from plants as reported in the 1974-1975 literature. <u>Llovdia</u> 39: 420.

- Fowler, M.W. 1983. Commecial applications and economic aspects of mass plant cell culture. <u>Plant biotechnology</u>. Cambridge: Cambridge University Press.
- Frischknecht, P.M., Baumann, T. W., and Tanner, H. 1977. Tissue culture of *Coffea arabica*: Growth and caffeine formation. <u>Planta Medica</u> 31: 344-350.
- Fujita, Y. and Tabata, M. 1986. Secondary metabolites from plant cells: Pharmaceutical application and progress in commercial product. <u>Plant tissue and cell culture</u>.
 Minnesota: University of Minneapolis Press.
- Fukui, H. et al. 1982. Production of isoquinoline alkaloids by cell suspension cultures of *Coptis japonica*. Plant tissue and cell culture. Tokyo: Maruzen Co.
- Furuya, F. et al. 1983. Saponin production in cell suspension cultures of *Panax ginseng*.

 Planta Medica 48: 83-87.
- Goncalves de Lima, O. et al. Rev. Inst. Antibiot. 21(1971): 11 Chemical Abstracts 77 (1972): Abstract No. 29629n.
- Goodwin, T.W. and Mercer, E.I. 1983. <u>Introduction to plant biochemistry</u>. 2 nd ed. Oxford: Pergamon Press.
- Grotzinger, E. and Champbell, J.M. 1971. Intermediate symmetry in lawsone biosynthesis. <u>Phytochemistry</u> 11:675.
- _____. 1972. The role of 2-ketoglutarate in lawsone biosynthesis in *Impatiens* balsamina. Tetrahedron Letter 46: 4685-14086.
- 1974, 4-(2'-Carboxyphenyl)-4-oxobutyrate: An obligatory intermediate in lawsone biosynthesis. Phytochemistry 13:923.
- Harborne, J.B. 1982. <u>Introduction of ecological biochemistry</u>. 2nd ed. New York: Academic press.

- . 1983. Phytochemical methods. 2 nd ed. London: Chapman and Hall.
- Herbert, R.B. 1981. The biosynthesis of secondary metabolites. London: Chapman.
- Holmes, H.L. et al. 1964. Evidence for the mode of chemical action of 1,4-naphthoquinones in bacteriostasis. Chemiotherapia 9:241-247.
- Inouye et al. 1979. Biosynthesis of shikonin in callus cultures of Lithospermum erythrorhizon. Phytochemistry 18:1301-1308.
- Jutima Boonleang. 1991. The development of the analytical method for determining 2-methoxy-1,4-naphthoquinone in plasma using high performance liquid chromatography technique. Master's Thesis, Chulalongkorn University.
- Kapadia, G.J. et al. 1969. Lloydia 32:523.
- Karawya, M.S. et al. 1969. Lloydia 32:76.
- Kaul, B. and Staba, E.J. 1968. *Dioscorea* tissue cultures. I. Biosynthesis and isolation of diosgenin from *Dioscorea deltoidea* callus and suspension cells. <u>Lloydia</u> 31: 171-179.
- Kelkar, D.V. *et al.* 1986. 3-Substituted lawsone and their calcium and zinc chelates as antimicrobials. Ind. J. Pharm. Sci. Nov.-Dec.: 198.
- Koblitz, H. et al. 1975. Gewebekulturen aus alkaloidpflanzen: IV. Macleaya microcarpa (Maxim.) Fedde. Experientia 31: 768-769.
- Kulkarni, B.A. *et al.* 1983. 3- Chlorohydroxy-1,4-naphthoquinones and their chelates as antimicrobials. <u>Indian Journal of Pharmaceutical Sciences</u>. Jan.-Feb.: 21-23.
- Latif, A. 1959. Indian J. Agric. Sci. 29: 147.

- Leung, Y.A. 1980. Encyclopedia of common natural ingredients use in food drugs and cosmetics. New York: John Wiley & Son.
- Levin, D.A. 1976. The chemical defences of plants to pathogen and microorganism.

 Annual Review of Ecological System 7: 121-159.
- Lily, M.P. and Metzger, J. 1980. <u>Medicinal plants of east and southeast asia: Attributed properties and used.</u> London: The MIT Press.
- Little, J.E. *et al.* 1948. The isolation and antifungal action of naturally occurring 2-methoxy-1,4-naphthoquinone. <u>J. Biol. Chem.</u> 174: 335-342.
- Luckner, M. and Nover, L. 1977. Expression of secondary metabolism. An aspect of cell specialization of microorganisms, higher plants, and animals. Secondary metabolism and cell differentiation. Berlin: Springer-Verlag.
- Mansell, L.R. and Kemerer, L.V. 1970. Qualitative and quantitative comparisons of hydroxycinnamic acid derivatives in petals of the red, white and purple genotypes of *Impatiens balsamina*. Phytochemistry 9:1751.
- _____and Seder, A.J. 1971. o-Methyltransferase activity from young flowers of Impatiens balsamina. Phytochemistry 10: 2043.
- Matsumoto, t. et al. 1981. Selection of cultured tobacco cell strains producing high levels of ubiquinone 10 by a cell cloning technique. Agric. Biol. Chem. 45: 1627-1633.
- Monthon Sanguansermsri et al. 1991. The final report on "Effect of 2-methoxy-1,4-naphthoquinone on the function of veast mitochondria". Bangkok:

 Chulalongkorn University.

- Narong Chomchalow and Oradee Sahavacharin. 1981. The role of tissue culture in the development of medicinal plants and spices. Proceedings of the International Symposium Held at National University of Singapore, April 28-30: 162-166.
- Parnom Pothiyanont *et al.* 2535. Formulation of dermatological preparation from extract of *Impatiens balsamina* leaves. Thai Journal Pharmaceutical Science (in press).
- Pierik, R.L.M. 1987. <u>In vitro culture of higher plants</u>. Boston: Martinus Nijhoff Publisher.
- Quisumbing, E. 1951. Medicinal plants of the Philippines. Manila: Burean of Printing.
- Razzaque, A. and Ellis, B. E. 1977. Rosmarinic acid production in *Coleus blumei*.

 Planta 137: 287-292
- Rhodes, M.J.C. *et al.* 1987. Secondary product formation in plant cell cultures. <u>Journal</u> of Applied Bacteriology Symposium Supplement: 105S-114S
- Rosental, G.A. and janzen, D.H. 1979. <u>Herbivores: Their interaction with secondary</u> metabolites. London: Academic Press.
- Sarkar and Chakrabarty. 1955-1956. Sci. and Cult. 21:616.
- Sastri, B.N.S. et al. 1959. The wealth of india: A dictionary of Indian raw material and industrial product. Vol. 5. New Delhi: Council of Scientific and Industrial Research.
- Sato, F. and Yamada, Y. 1984. High berberine producing cultures of *Coptis japonica* cells. Phytochemistry 23: 281-285.
- Schmid, H.V. and Zenk, M.H. 1971. p-Hydroxybenzoic acid and mevalonic acid as precursors of the plant naphthoquinone alkannin. <u>Tetrahedron Letters</u> 44: 4151-4155.

- Shargool, P.D. 1982. Appl. Biochem. Biotech. 7: 239-257.
- Sharma, O.P. and Khanna, P. 1980. Studies on steroidal sapogenins from tissue cultures of *Agave wightii*. Lloydia 43: 459-462.
- Shuler, M.L. 1981. Production of secondary metabolites from plant tissue culture.

 Annul. N.Y. Acad. Sci. 369: 65-79.
- Slaba, E.J. 1980. Plant tissue culture as a source of biochemicals. Florida: CRC-Press.
- Smith, J.T. et al. 1987. Stimulation of indole alkaloid production in Catharanthus roseus

 (L.) G. Don by vanadyl sulfate. Plant Cell Report 6: 142-145.
- Steffen, von K. and Peschel, H. 1975. Chemical constitution and antifungal activity of 1,4-naphthoquinones, Their biosynthetic internediary products and chemical related compounds. <u>Planta Medica</u> 27: 201.
- Swain, T. 1977. Secondary compounds as protective agents. <u>Annual Review of Plant</u>
 Physiology 28: 479-501.
- Tabata, M. and Noboru, H. 1976. Variation of alkaloid in *Nicotiana rustica* callus cultures. Physiol. Plant. 38: 19-23.
- Tabata, M. et al. 1975. The production of anthaquinones in callus cultures of Cassia tora.

 Lloydia 38: 131-134.
- . 1978. Selection of cell lines with higher yield of secondary products. Frontiers of plant tissue culture. Canada: University of Calgary.
- Thatree Phadungcharoen et al. 1988. Antifungal compound from Impatiens balsamina leaves. Thai J. Pharm. Sci. 13:117.
- Thomson, R.H. 1971. Naturally occurring quinones. 2 nd ed. London: Academic Press.

- Tommasi, G. 1920. <u>Gazz. Chim. Ital.</u> 50I: 263.
- Tripathi, R.D. et al. 1978. A fungitoxic compound from Impatiens balsamina leaves.

 <u>Experientia</u> 34:51.
- Vasil K.I. 1987. Cell culture in phytochemistry. <u>Cell culture and somatic cell genetics of plants</u> 4. San Diego: Academic Press, Inc.
- Wanchai De-Eknamkul and Ellis, B.E. 1984. Rosmarinic acid production and growth characteristic of *Anchusa officinalis* cell suspension cultures. <u>Planta Medica</u> 51: 346-350.
- Weissenboeck et al. 1971. Z. Pflanzenphysiol. 64:274.
- Wellmann, E. 1975. Planta Medica Supplement.: 107.
- Wink, M. 1988. Plant breeding: Importance of plant secondary metabolites for production against pathogens and herbivores. <u>Theoretical and Applied Genetics</u> 75: 225-233.
- Zenk, M.H. et al. 1975. Anthaquinone production by cell suspension cultures of Morinda citrifolia. Planta Medica, Supplement 75: 79-81.
- ______. 1977. Formation of the indole alkaloids serpentine and ajmalicine in cell suspension cultures of *Catharanthus roseus*. Plant tissue culture and its biotechnological application. Berlin: Springer-Verlag.
- _____. 1985. Benzylisoquinoline biosynthesis by cultivated plant cells and isolated enzymes. <u>J. Nat. Prod.</u> 48: 725.



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