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#### **Educational Background:**

1970	B.Sc. (Hons), Chemistry	Mahidol University, Bangkok, Thailand
1972	M. Sc., Organic Chemistry	Mahidol University, Bangkok, Thailand
1975	Ph.D., Organic Chemistry	University of Cambridge, United Kingdom
1985	Postdoctoral Research Training	CSIRO, Division of Applied Organic Chemistry, Melbourne, Australia

#### **Academic Position:**

		Rajabhat University)
1976-1980	Academic Supervisor	Department of Teacher Education, Ministry of Education
1981-1982	Lecturer	Department of Chemistry, Faculty of Science, Ramkhamhaeng University
1982-1985	Assistant Professor	Department of Chemistry, Faculty of Science, Ramkhamhaeng University
1986-2002	Associate Professor	Department of Chemistry, Faculty of Science, Ramkhamhaeng University
2002-present	Professor	Department of Chemistry, Faculty of Science, Ramkhamhaeng University

### **Administrative Experience:**

1987-1988	Deputy Dean, Academic and Research Affairs	Faculty of Science, Ramkhamhaeng University
1988-1993	Director of Graduate Studies	Faculty of Science, Ramkhamhaeng University
2003-2012	Chairman of Graduate Studies, Applied Chemistry	Department of Chemistry, Faculty of Science, Ramkhamhaeng University

### **Awards and Honours:**

1998	Outstanding Scientist Award	Foundation for the Promotion of Science and Technology under the Patronage of His Majesty the King
1999	TRF Senior Research Scholar	The Thailand Research Fund

2001	National Outstanding Researcher Award	National Research Council of Thailand
2002	TRF Senior Research Scholar	The Thailand Research Fund
2004	Research Team Strengthening Grant Award	National Center for Genetic Engineering and Biotechnology, National Science and Technology Development Agency

### **Research Interests:**

Bioactive Natural Products	Isolation and structural elucidation of bioactive natural products
Structural Modification of Natural Products	Use of chemistry and biotechnology to modify the structures and enhance the biological activities of natural products
Microbial Transformation	Regioselective and stereoselective biotransformation of natural products; Functional group-mediated biotransformation
Natural Product-based Drug Discovery	Drug targeting; Prodrug design

### **Publications:**

1. McDonald, E.; **Suksamrarn, A.** Design of the substrate for oxidative phenol coupling: An efficient dienone synthesis. *Tetrahedron Lett.* 1975, 4421-4424.
2. McDonald, E.; **Suksamrarn, A.** Total synthesis of compounds related to the homoerythrina alkaloids. *Tetrahedron Lett.* 1975, 4425-4428.

3. McDonald, E.; **Suksamrarn, A.** Synthesis of homoerysodienone and its conversion into  $\beta$ -homoerysodienone via a dibenz[d,f]azecine; potential precursors of the homoerythrina alkaloids. *J. Chem. Soc., Perkin Trans. 1* 1978, 434-439.
4. McDonald, E.; **Suksamrarn, A.** Design of the substrate for oxidative phenol coupling. An efficient synthesis of the C-homoerythrinan skeleton. *J. Chem. Soc., Perkin Trans. 1* 1978, 440-446.
5. McDonald, E.; **Suksamrarn, A.**; Wylie, R. D. Diels-Alder reactivity of oxygenated dienes and furans. Synthesis of oxygenated biphenyls. *J. Chem. Soc., Perkin Trans. 1* 1979, 1893-1900.
6. **Suksamrarn, A.** Iridoid glucosides from *Barleria lupulina*. *J. Nat. Prod.* 1986, **49**, 179.
7. Werawattanametin, K.; Podimuang, V.; **Suksamrarn, A.** Ecdysteroids from *Vitex glabrata*. *J. Nat. Prod.* 1986, **49**, 365-366.
8. **Suksamrarn, A.**; Wilkie, J. S.; Horn, D. H. S. Blechnosides A and B. New ecdysteroid glycosides from *Blechnum minus*. *Phytochemistry* 1986, **25**, 1301-1304.
9. Byrne, L.T.; Sasse, J. M.; Skelton, B. W.; **Suksamrarn, A.**; White, A. H. The minor iridoid glucosides of *Barleria lupulina*: Isolation, crystal structure and plant growth inhibiting properties of 6-O-acetyl-shanzhiside methyl ester. *Aust. J. Chem.* 1987, **40**, 785-794.
10. **Suksamrarn, A.**; Brophy, J. J. The volatile leaf oil of *Eugenia javanica* Lamk. *Flav. Fragr. J.* 1987, **2**, 37-40.
11. Temcharoen, P.; Glinsukon, T.; **Suksamrarn, A.**; Bunyapraphatsara, N. Lack of antibacterial activity of four iridoid glucosides, eurycomalactone and hispidulin from *Barleria lupulina*, *Eurycoma longifolia* and *Millingtonia hortensis*. *Thai J. Toxicol.* 1988, **4**, 43-46.
12. **Suksamrarn, A.**; Aphaijitt, S.; Brophy, J. J. The volatile leaf oil of *Vitex limonifolia* Wall. *Flav. Fragr. J.* 1990, **5**, 53-55.
13. Piyachaturawat, P.; Chailurkit, L.; **Suksamrarn, A.**; Wanichanon, C. Piperine-induced disruption of pregnancy in rats: I. Post-coital contraceptive efficacy and antigenadotrophic effect. *Thai J. Physiol. Sci.* 1990, **3**, 129-137.
14. Brophy, J. J.; Lassak, E. V.; **Suksamrarn, A.** Constituents of volatile leaf oil of

*Polyscias fruticosa* (L.) Harms. *Flav. Fragr. J.* 1990, **5**, 179-182.

15. **Suksamrarn, A.**; Werawattanametin, K.; Brophy, J. J. Variation of essential oil constituents in *Vitex trifolia* species. *Flav. Fragr. J.* 1991, **6**, 97-99.
16. **Suksamrarn, A.**; Sommechai, C. Ecdysteroids from *Vitex pinnata*. *Phytochemistry* 1993, **32**, 303-306.
17. **Suksamrarn, A.**; Ganpinyo, P.; Sommechai, C. Base-catalyzed autoxidation of 20-hydroxyecdysone: Synthesis of calonosterone and 9,20-dihydroxyecdysone. *Tetrahedron Lett.* 1994, **35**, 4445-4448.
18. **Suksamrarn, A.**; Eiamong, S.; Piyachaturawat, P.; Charoenpiboon, J. Phenolic diarylheptanoids from *Curcuma xanthorrhiza*. *Phytochemistry* 1994, **36**, 1505-1508.
19. **Suksamrarn, A.**; Sommechai, C.; Charulpong, P.; Chitkul, B. Ecdysteroids from *Vitex canescens*. *Phytochemistry* 1995, **38**, 473-476.
20. **Suksamrarn, A.**; Pattanaprateep, P. Selective acetylation of 20-hydroxyecdysone. Partial synthesis of some minor ecdysteroids and analogues. *Tetrahedron* 1995, **51**, 10633-10650.
21. Aphaijitt, S.; Nimgirawath, K.; **Suksamrarn, A.**; Tooptakong, U. Isolation and crystal structure of limonidilactone- a labdane diterpene from *Vitex limonifolia*. *Aust. J. Chem.* 1995, **48**, 133-137.
22. Piyachaturawat, P.; Ercharuporn, S.; **Suksamrarn, A.** Estrogenic activity of *Curcuma comosa* extract in rats. *Asia Pacific J. Pharmacol.* 1995, **10**, 121-126.
23. Piyachaturawat, P.; Ercharuporn, S.; **Suksamrarn, A.** Uterotrophic effect of *Curcuma comosa* in rats. *Int. J. Pharmacog.* 1995, **33**, 334-338.
24. **Suksamrarn, A.**; Charoensuk, S.; Yingyongnarongkul, B. Synthesis and biological activity of 3-deoxyecdysteroid analogues. *Tetrahedron* 1996, **52**, 10673-10684.
25. **Suksamrarn, A.**; Yingyongnarongkul, B. Synthesis and biological activity of 2-deoxy-20-hydroxyecdysone and derivatives. *Tetrahedron* 1996, **52**, 12623-12630.
26. Piyachaturawat, P.; Gansar, R.; **Suksamrarn, A.** Choleretic effect of *Curcuma comosa*

- rhizome extracts in rats. *Int. J. Pharmacog.* 1996, **34**, 174-178.
27. **Suksamrarn, A.**; Yingyongnarongkul, B. Synthesis and moulting hormone activity of 3-*epi*-2-deoxy-20-hydroxyecdysone and analogues. *Tetrahedron* 1997, **53**, 3145-3154.
28. Piyachaturawat, P.; Teeratagolpisal, N.; Toskulkao, C.; **Suksamrarn, A.** Hypolipidemic effect of *Curcuma comosa* in mice. *Artery* 1997, **22**, 233-241.
29. **Suksamrarn, A.**; Eiamong, S.; Piyachaturawat, P.; Byrne, L. T. A phloracetophenone glucoside with choleric activity from *Curcuma comosa*. *Phytochemistry* 1997, **45**, 103-105.
30. **Suksamrarn, A.**; Promrangsan, N.; Chitkul, B.; Homvisasevongsa, S.; Sirikate, A. Ecdysteroids of the root bark of *Vitex canescens*. *Phytochemistry* 1997, **45**, 1149-1152.
31. Yingyongnarongkul, B.; **Suksamrarn, A.** Asymmetric dihydroxylation of stachysterone C: Stereoselective synthesis of 24-*epi*-abutasterone. *Tetrahedron* 1998, **54**, 2795-2800.
32. Piyachaturawat, P.; Timinkul, A.; Chuncharunee, A.; **Suksamrarn, A.** Growth suppressing effect of *Curcuma comosa* extract on male reproductive organs in immature rats. *Pharmaceutic. Biol.* 1998, **36**, 44-49.
33. Piyachaturawat, P.; Suwanumpai, P.; Komaratat, P.; Chuncharunee, A.; **Suksamrarn, A.** Effect of phloracetophenone on bile flow and biliary lipids in rat. *Hepatol. Res.* 1998, **12**, 198-206.
34. **Suksamrarn, A.**; Yingyongnarongkul, B.; Promrangsan, N. Naturally occurring 20,26-dihydroxyecdysone exists as two C-25 epimers and exhibit different degrees of moulting hormone activity. *Tetrahedron* 1998, **54**, 14565-14572.
35. Piyachaturawat, P.; Charoenpiboon, J.; Toskulkao, C.; **Suksamrarn, A.** Reduction of plasma cholesterol by *Curcuma comosa* extract in hypercholesterolaemic hamsters. *J. Ethnopharm.* 1999, **66**, 199-204.
36. **Suksamrarn, A.**; Yingyongnarongkul, B.; Charoensuk, S. Regioselective synthesis of 24-*epi*-pterosterone. *Tetrahedron* 1999, **55**, 255-260.

37. Piyachaturawat, P.; Timinkul, A.; Chuncharunee, A.; **Suksamrarn, A.** Effect of *Curcuma comosa* extract on male fertility in rats. *Pharmaceutic. Biol.* 1999, **37**, 22-27.
38. Suksamrarn, S.; Khumcharoen, S.; **Suksamrarn, A.** Iridoids of *Vitex limonifolia*. *Planta Med.* 1999, **65**, 392.
39. **Suksamrarn, A.**; Promrangsan, N.; Jintasirikul, A. Highly oxygenated ecdysteroids from *Vitex canescens* root bark. *Phytochemistry* 2000, **53**, 921-924.
40. Yingyongnarongkul, B; **Suksamrarn, A.** Synthesis and biological activity of inokosterone. *ScienceAsia*, 2000, **26**, 15-20.
41. Piyachaturawat, P.; Chai-ngam, N.; Chuncharunee, A.; Komaratat, P.; **Suksamrarn, A.** Choleretic activity of phloracetophenone in rats: structure-function studies using acetophenone analogues. *Eur. J. Pharmacol.* 2000, **387**, 221-227.
42. Rukachaisirikul, T.; Intaraudom, J.; Chawanasak, S.; **Suksamrarn, A.** Phenylpropanoids from *Cinnamomum parthenoxylon*. *ScienceAsia* 2000, **26**, 159-161.
43. Charoensuk, S.; Yingyongnarongkul, B.; **Suksamrarn, A.** Synthesis of 2-dehydro-3-*epi*-20-hydroxyecdysone. *Tetrahedron* 2000, **56**, 9313-9317.
44. Piyachaturawat, P.; Tanphichai, K.; **Suksamrarn, A.** Stimulatory activity of hydroxyphloracetophenone analogs on bile secretion in rats. *FASEB J.* 2001, **15**, A820.
45. **Suksamrarn, A.**; Pattanaprateep, P.; Tanachatchairatana, T.; Haritakun, W.; Yingyongnarongkul, B.; Chimnoi, N. Chemical modifications at the 22-hydroxyl group of ecdysteroids: alternative structural requirements for high moulting activity. *Insect Biochem. Mol. Biol.* 2002, **32**, 193-197.
46. **Suksamrarn, A.**; Kumpun, S.; Kirtikara, K.; Yingyongnarongkul; Suksamrarn, S. Iridoids with anti-inflammatory activity from *Vitex peduncularis*. *Planta Med.* 2002, **68**, 72-73.
47. Piyachaturawat, P.; Tubtim, C.; Chuncharunee, A.; Komaratat, P.; **Suksamrarn, A.** Evaluation of the acute and subacute toxicity of a choleretic phloracetophenone in experimental animals. *Toxicol. Lett.*, 2002, **129**, 123-132.
48. Piyachaturawat, P.; Srivoraphan, P.; Chuncharunee, A.; Komaratat, P.; **Suksamrarn, A.**

- Cholesterol lowering effects of a choleretic phloracetophenone in hypercholesterolemic hamsters. *Eur. J. Pharmacol.*, 2002, **439**, 141-147.
49. Sutthivaiyakit, S.; Unganont, S.; Sutthivaiyakit P.; **Suksamrarn, A.** Diterpenylated and prenylated flavonoids from *Macaranga denticulata*. *Tetrahedron*, 2002, **58**, 3619-3622.
50. Suksamrarn, S.; Suwannapoch, N.; Ratananukul, P.; Aroonrerk, N.; **Suksamrarn, A.** Xanthones from the green fruit hulls of *Garcinia mangostana*. *J. Nat. Prod.* 2002, **65**, 761-763.
51. **Suksamrarn, A.**; Jankam, A.; Tarnchompoo, B.; Putchakarn, S. Ecdysteroids from a *Zoanthus* sp. *J. Nat. Prod.*, 2002, **65**, 1194-1197.
52. **Suksamrarn, A.**; Tanachatchairatana, T.; Sirigarn, C. Stereoselective catalytic hydrogenation of  $\Delta^7$ -6-ketosteroids in the presence of sodium nitrite. *Tetrahedron*, 2002, **58**, 6033-6038.
53. Kanokmedhakul, S.; Kanokmedhakul, K.; Polkerd, N.; Soytong, K.; Kongeree, P.; **Suksamrarn, A.** Antimycobacterial anthraquinone-chromanone compound and diketopiperazine alkaloid from the fungus *Chaetomium globosum* KMITL-N0802. *Planta Med.* 2002, **68**, 834-836.
54. Rukachaisirikul, T.; Prabpai, S.; Champung, P.; **Suksamrarn, A.** Chabamide, a novel piperine dimer from the stem of *Piper chaba*. *Planta Med.* 2002, **68**, 853-855.
55. **Suksamrarn, A.**; Kumpun, S.; Yinyongnarongkul, B. Ecdysteroids of *Vitex scabra* stem bark. *J. Nat. Prod.* 2002, **65**, 1690-1692.
56. Kanokmedhakul, S.; Kanokmedhakul, K.; Prajuabsuk, T.; Soytong, K.; Kongeree, P.; **Suksamrarn, A.** A bioactive triterpenoid and vulpinic acid derivatives from the mushroom *Scleroderma citrinum*. *Planta Med.* 2003, **69**, 568-571.
57. Suksamrarn, S.; Suwannapoch, N.; Phakhodee, W.; Thanuhiranlert, J.; Ratananukul, P.; Chimnoi, N.; **Suksamrarn, A.** Antimycobacterial activity of prenylated xanthones from the fruits of *Garcinia mangostana*. *Chem. Pharm. Bull.* 2003, **51**, 857-859.
58. Suksamrarn, S.; Wongkrajang, K.; Kirtikara, K.; **Suksamrarn, A.** Iridoid glucosides from the flowers of *Barleria lupulina*. *Planta Med.* 2003, **69**, 877-879.
59. **Suksamrarn, A.**; Tanachatchairatana, T.; Kanokmedhakul, S. Antiplasmodial triterpenes

of *Gardenia saxatilis*. *J. Ethnopharmacol.* 2003, **88**, 275-277.

60. **Suksamrarn, A.**; Poomsing, P.; Aroonrerk, N.; Punjanont, T.; Suksamrarn, S.; Kongkun, S. Antimycobacterial and antioxidant flavones from *Limnophila geoffrayi*. *Arch. Pharm. Res.* 2003, **26**, 816-820.
61. Nguansangiam, S.; Angsubhakorn, S.; Bhamarapratvi, S.; **Suksamrarn, A.** Effects of elephant garlic volatile oil (*Allium ampeloprasum*) and T-2 toxin on murine skin. *Southeast Asian J. Trop. Med. Public Health* 2003, **34**, 899-905.
62. Homvisasevongsa, S.; Chuaynugul, A.; Chimnoi, N.; **Suksamrarn, A.** Stereoselective synthesis and moulting activity of 2,3-diepi-20-hydroxyecdysone and 2,3-diepi-5 $\alpha$ -20-hydroxyecdysone. *Tetrahedron* 2004, **60**, 3433-3438.
63. Rukachaisirikul, T.; Prabpai, S.; Kongsaree, P.; **Suksamrarn, A.** (+)-Bornyl piperate, a new monoterpenoid ester from *Piper aff. pedicellatum*. *Chem. Pharm. Bull.* 2004, **52**, 760-761.
64. Rukachaisirikul, T.; Siriwattanakit, P.; Sukcharoenphol, K.; Wongvein, C.; Rattanaweang, P.; Wongwattanavuch, P.; **Suksamrarn, A.** Chemical constituents and bioactivity of *Piper sarmentosum*. *J. Ethnopharmacol.* 2004, **93**, 173-176.
65. **Suksamrarn, A.**; Chotipong, A.; Suavansri, T.; Boongird, S.; Timsuksai, P.; Chuaynugul, A. Antimycobacterial activity and cytotoxicity of flavonoids from the flowers of *Chromolaena odorata*. *Arch. Pharm. Res.* 2004, **27**, 507-511.
66. **Suksamrarn, A.**; Buaprom, M.; Udtip, S.; Nuntawong, N.; Haritakun, R.; Kanokmedhakul, S. Antimycobacterial and antiplasmodial unsaturated carboxylic acid from the twigs of *Scleropyrum wallichianum*. *Chem. Pharm. Bull.* 2005, **53**, 1327-1329.
67. Piyachaturawat, P.; Khamdang, S.; **Suksamrarn, A.** Evaluation on the choleric effects of hydroxyacetophenone on the secreting species of bile acids. *FASEB J.* 2005, **19**,

68. Kanchanapoo, J.; Rao, M. C.; Sophasan, S.; **Suksamrarn, A.**; Piyachaturawat, P. Inhibitory effects of choleric hydroxyacetophenones on ileal bile acid transport in rats. *Life Sci.* 2006, **78**, 1630-1636.
69. Suksamrarn, S.; Komutiban, O.; Ratananukul, P.; Chimnoi, N.; Lartpornmatulee, N.; **Suksamrarn, A.** Cytotoxic prenylated xanthones from the young fruits of *Garcinia mangostana*. *Chem. Pharm. Bull.* 2006, **54**, 301-305.
70. Suksamrarn, S.; Panseeta, P.; Kunchanawatta, S.; Chimnoi, N.; Ruktasing, S; **Suksamrarn, A.** Ceanothane- and lupane-type triterpenes with antiplasmodial and antimycobacterial activities from *Ziziphus cambodiana*. *Chem. Pharm. Bull.* 2006, **54**, 535-537.
71. Kanokmedhakul, S.; Kanokmedhakul, K.; Nasomjai, P.; Louangsysouphanh, S.; Soytong, K.; Isobe, M.; Kongseree, P.; Prabpai, S.; **Suksamrarn, A.** Antifungal azaphilones from the fungus *Chaetomium cupreum* CC3003. *J. Nat. Prod.* 2006, **69**, 891-895.
72. Changtam, C.; Sukcharoen, O.; Yingyongnarongkul, B.; **Suksamrarn, A.** Biotransformation of 20-hydroxyecdysone to 2-dehydro-3-*epi*- and 3*α*,9*α*-cyclo-analogues by *Curvularia lunata* NRRL 2178. *Steroids* 2006, **71**, 902-907.
73. Tradtrantip, L.; Boyer, J. L.; **Suksamrarn, A.**; Piyachaturawat, P. Differential effects of hydroxyacetophenone analogues on the transcytotic vesicular pathway in rat liver. *Eur. J. Pharmacol.* 2006, **547**, 152-159.
74. Namdaung, U.; Aroonrerk, N.; Suksamrarn, S.; Danwisetkanjana, K.; Saengboonrueng, J.; Arjchomphu, W.; **Suksamrarn, A.** Bioactive constituents of the root bark of *Artocarpus rigidus* subsp. *rigidus*. *Chem. Pharm. Bull.* 2006, **54**, 1433-1436.
75. Mahagita, C.; Tanphichai, K.; **Suksamrarn, A.**; Nazzareno, B.; Piyachaturawat, P.

- 4-Hydroxyacetophenone-induced choleresis in rats is mediated by the Mrp2-dependent biliary secretion of its glucuronide conjugate. *Pharmaceutic. Res.* 2006, **23**, 2603-2610.
76. Yingyongnarongkul, B.; Apiratikul, N.; Aroonrerk, N.; **Suksamrarn, A.** Solid-phase synthesis and antibacterial activity of hydroxycinnamic acid amides and analogues against methicillin-resistant *Staphylococcus aureus* and vancomycin-resistant *S.aureus*. *Bioorg. Med. Chem. Lett.* 2006, **16**, 5870-5873.
77. Kumpun, S.; Yingyongnarongkul, B.; Lafont, R.; Girault, J.; **Suksamrarn, A.** Stereoselective synthesis and moulting activity of integristerone A and analogues. *Tetrahedron* 2007, **63**, 1093-1099.
78. Rukachaisirikul, T.; Innok, P.; Aroonrerk, N; Boonamnuaylap, W.; Limrangsун, S; Boonyon, C.; Woonjina, U.; **Suksamrarn, A.** Antibacterial pterocarpans from *Erythrina subumbrans*. *J. Ethnopharmacol.* 2007, **110**, 171-175.
79. Jankam, A.; Somerville, M. J.; Hooper, J. N. A.; Brecknell, D. J.; **Suksamrarn, A.**; Garson, M. J. Dactylospongiaquinone, a new meroterpenoid from the Australian marine sponge *Dactylospongia* n. sp. *Tetrahedron* 2007, **63**, 1577-1582.
80. Sodsai, A.; Piyachaturawat, P.; Sophasan, S.; **Suksamrarn, A.**; Vongsakul, M. Suppression by *Curcuma comosa* Roxb. of pro-inflammatory cytokine secretion in phorbol-12-myristate-13-acetate stimulated human mononuclear cells. *Int. Immunopharmacol.* 2007, **7**, 524-531.
81. Aroonrerk, N; **Suksamrarn, A.**; Kirtikara, K. A sensitive direct ELISA for detection of prostaglandin E<sub>2</sub>. *J. Immunoas. Immunochem.* 2007, **28**, 319-330.
82. Rukachaisirikul, T.; Saekee, A.; Tharibun, C.; Watkuolham, S.; **Suksamrarn, A.** Biological activities of the chemical constituents of *Erythrina stricta* and *Erythrina subumbrans*. *Arch. Pharm. Res.* 2007, **30**, 1398-1403.

83. Sikareepaisan, P.; **Suksamrarn, A.**; Supaphol, P. Electrospun gelatin fiber mats containing a herbal-*Centella asiatica*-extract and release characteristic of asiaticoside. *Nanotechnology* 2008, **19**, 015102 (10pp).
84. Tanachatchairatana, T; Bremner, J. B.; Chokchaisiri, R.; **Suksamrarn, A.** Antimycobacterial activity of cinnamate-based esters of the triterpenes betulinic, oleanolic and ursolic acids. *Chem. Pharm. Bull.* 2008, **56**, 194-198.
85. Changtam, C.; Sukcharoen, O.; Yingyongnarongkul, B.; Chimnoi, N.; **Suksamrarn, A.** Functional group-mediated biotransformation by *Curvularia lunata* NRRL 2178: Synthesis of 3-dehydro-2-deoxy-ecdysteroids from the 3-hydroxy-2-mesyloxy analogues. *Tetrahedron* 2008, **64**, 2626-2633.
86. Yoysungnoen, P.; Wirachwong, P.; Changtam, C.; **Suksamrarn, A.**; Patumraj, S. Suppression of tumor neocapillarization induced by HepG<sub>2</sub> cells in nude mice supplemented with curcumin or tetrahydrocurcumin: an *in vivo* comparative study. *Asian Biomed.* 2008, **2**, 77-82.
87. Rukachaisirikul, T.; Innok, P.; **Suksamrarn, A.** Erythrina alkaloids and a pterocarpan from the bark of *Erythrina subumbrans*. *J. Nat. Prod.* 2008, **71**, 156-158.
88. Yoysungnoen, P.; Wirachwong, P.; Changtam, C.; **Suksamrarn, A.**; Patumraj, S. Anti-cancer and anti-angiogenic effects of curcumin and tetrahydrocurcumin on implanted hepatocellular carcinoma in nude mice. *World J. Gastroenterol.* 2008, **14**, 2003-2009.
89. Chinworrungsee, M.; Wiyakrutta, S.; Sriubolmas, N.; Chuailua, P.; **Suksamrarn, A.** Cytotoxic activities of trichothecenes isolated from an endophytic fungus belonging to order Hypocreales. *Arch. Pharm. Res.* 2008, **31**, 611-616.
90. Yong, K. W. L; Jankam, A.; Hooper, J. N. A.; **Suksamrarn, A.**; Garson, M. J. Stereochemical evaluation of sesquiterpene quinones from two sponges of the genus *Dactylospongia* and the implication for enantioselective processes in marine terpene biosynthesis. *Tetrahedron* 2008, **64**, 6341-6348.
91. **Suksamrarn, A.**; Ponglikitmongkol, M.; Wongkrajang, K.; Chindaduang, A.; Kittidanairak, S.; Jankam, A.; Yingyongnarongkul, B.; Kittipanumat, N.; Chokchaisiri, R.; Khetkam, P.; Piyachaturawat, P. Diarylheptanoids, new phytoestrogens from the rhizomes of *Curcuma comosa*: Isolation, chemical modification and estrogenic activity evaluation. *Bioorg. Med. Chem.*, 2008, **16**, 6891-6902.
92. Nuntawong, N.; **Suksamrarn, A.** Chemical constituents of the rhizomes of *Alpinia*

*malaccensis*. *Biochem. Syst. Ecol.*, 2008, **36**, 661-664.

93. Yingyongnarongkul, B.; Apiratikul, N.; Aroonrerk, N.; **Suksamrarn, A.** Synthesis of bis, tris and tetra(dihydrocaffeoyl)polyamine conjugates as antibacterial agents against VRSA. *Arch. Pharm. Res.* 2008, **31**, 698-704.
94. Yingyongnarongkul, B.; Rachatawedchakoon, W.; Krajarng, A.; Watanapokasin, Y.; **Suksamrarn, A.** High transfection efficiency and low toxicity cationic lipids with aminoglycerol-diamine conjugate. *Bioorg. Med. Chem.* 2009, **17**, 176-188.
95. Winuthayanon, W.; Suksen, K.; Boonchird, C.; Chuncharunee, A.; Ponglikitmongkol, M.; **Suksamrarn, A.**; Piyachaturawat, P. Estrogenic activity of diarylheptanoids from *Curcuma comosa* Roxb. requires metabolic activation. *J. Agric. Food Chem.* 2009, **57**, 840-845.
96. Chokchaisiri, R.; Suaisom, C.; Sriphota, S.; Chindaduang, A.; Chuprajob, T.; **Suksamrarn, A.** Bioactive flavonoids of the flowers of *Butea monosperma*. *Chem. Pharm. Bull.* 2009, **57**, 428-432.
97. Samosorn, S.; Tanwirat, B.; Muhamad, N.; Casadei, G.; Tomkiewicz, D.; Lewis, K.; **Suksamrarn, A.**; Prammananan, T.; Gornall, K. C.; Beck, J. L.; Bremner, J. B. Antibacterial activity of berberine-NorA pump inhibitor hybrids with a methylene ether linking group. *Bioorg. Med. Chem.* 2009, **17**, 3866-3872.
98. Winuthayanon, W.; Piyachaturawat, P.; **Suksamrarn, A.**; Ponglikitmongkol, M.; Arao, Y.; Hewitt, S. C.; Korach, K. S. Diarylheptanoid phytoestrogens isolated from the medicinal plant *Curcuma comosa*: biological actions in vivo and in vitro indicate ER-dependent mechanisms. *Environ. Health Perspec.* 2009, **117**, 1155-1161.
99. Wongeakin, N.; Sridulyakul, P.; Jariyapongskul, A.; **Suksamrarn, A.**; Pathumraj, S. Effects of curcumin and tetrahydrocurcumin on diabetes induced endothelial dysfunction. *African J. Biochem. Res.* 2009, **3**, 259-265.
100. Innok, P.; Rukachaisirikul, T.; **Suksamrarn, A.** Flavonoids and pterocarpans from the

bark of *Erythrina fusca*. *Chem. Pharm. Bull.* 2009, **59**, 993-996.

101. Intapad, S.; **Suksamrarn, A.**; Piyachaturawat, P. Enhancement of vascular relaxation in rat aorta by phytoestrogens from *Curcuma comosa* Roxb. *Vascular Pharmacol.* 2009, **51**, 169-174.
102. Changtam, C.; De Koning, H. P.; Ibrahim, H.; Sajid, M. S.; Gould, M. K.; **Suksamrarn, A.**; Curcuminoid analogs with potent activity against *Trypanosoma* and *Leishmania* species. *Eur. J. Med. Chem.* 2010, **45**, 941-956.
103. Kumrit, I.; **Suksamrarn, A.**; Meepawpan, P.; Songsri, S.; Nuntawong, N. Labdane-type diterpenes from *Hedychium gardnerianum* with potent cytotoxicity against human small cell lung cancer cells. *Phytother. Res.* 2010, **24**, 1009-1013 .
104. Chokchaisiri, R.; Chameiam, N.; Svasti, S.; Fucharoen, S.; Vadolas, J.; **Suksamrarn, A.** Labdane diterpenes from the aerial parts of *Curcuma comosa* enhance fetal hemoglobin production in an erythroid cell line. *J. Nat. Prod.* 2010, **73**, 724-728.
105. Weerachayaphorn, J.; Chuncharunee, A.; Jariyawat, S.; Lewchalermwong, B.; Amonpatumrat, S.; **Suksamrarn, A.**; Piyachaturawat, P. Protection of centrilobular necrosis by *Curcuma comosa* Roxb. in carbon tetrachloride-induced mice liver injury. *J. Ethnopharmacol.* 2010, **129**, 254-260.
106. Innok, P.; Rukachaisirikul, T.; Phongpaichit, S.; **Suksamrarn, A.** Fuscacarpans A-C, new pterocarpans from the stems of *Erythrina fusca*. *Fitoterapia* 2010, **81**, 518-523.
107. Changtam, C.; Hongmanee, P.; **Suksamrarn, A.**; Isoxazole analogs of curcuminoids with highly potent multidrug-resistant antimycobacterial activity. *Eur. J. Med. Chem.* 2010, **45**, 4446-4457.
108. Gornall, K. C.; Samosorn, S.; Tanwirat, B.; **Suksamrarn, A.**; Bremner, J. B.; Kelso, M. J.; Beck, J. L. A mass spectrometric investigation of novel quadruplex DNA selective berberine derivatives. *Chem. Commun.* 2010, **46**, 6602-6604.

109. Sun, H.; Dinan, R.; Lafont, R.; **Suksamrarn, A.**; Griesinger, C.; Reinscheid, U.; Lapenna, S. Absolute configuration and docking study of canescensterone, a potent phytoecdysteroid, with non-lepidopteran ecdysteroid receptor selectivity. *Eur. J. Org. Chem.* 2010, **30**, 5791-5799.
110. Duangmano, S.; Dakeng, S.; Jiratchariyakul, W.; **Suksamrarn, A.**; Smith, D. R.; Patmasiriwat, P. Antiproliferative effects of cucurbitacin B in breast cancer cells: down-regulation of the c-Myc/hTERT/telomerase pathway and obstruction of the cell cycle. *Int. J. Mol. Sci.* 2010, **11**, 5323-5338.
111. Jaisin, Y.; Thampithak, A.; Meesarapee, B.; Ratanachamnong, P.; **Suksamrarn, A.**; Phivthong-Ngam, L.; Phumala-Morales, N.; Chongthammakun, S.; Govitrapong, P.; Sanvarinda, Y. Curcumin I protects the dopaminergic cell line SH-SY5Y from 6-hydroxydopamine-induced neurotoxicity through attenuation of p53-mediated apoptosis. *Neurosci. Lett.* 2011, **489**, 192-196.
112. Panseeta, P.; Lomchoey, K.; Prabpai, S; Kongsaeree, P.; **Suksamrarn, A.**; Ruchirawat, S.; Suksamrarn, S. Antiplasmodial and antimycobacterial cyclopeptide alkaloids from the root of *Ziziphus mauritiana*. *Phytochemistry* 2011, **72**, 909-915.
113. Kumpun, S.; Girault, J.-P.; Dinan, L.; Blais, C.; Maria, A.; Dauphin-Villement, C.; Yingyongnarongkul, B.; **Suksamrarn, A.**; Lafont, R. The metabolism of 20-hydroxyecdysone in mice: Relevance to pharmacological effects and gene switch applications of ecdysteroids. *J. Steroid Biochem. Mol. Biol.* 2011, **126**, 1-9.
114. Chintana, P. Y.; Wirachwong, P.; **Suksamrarn, A.**; Patumraj, S. Downregulation of p-ERK1/2 and p-AKT expression by curcumin and tetrahydrocurcumin in hepatocellular carcinoma-induced tumors in nude mice. *Asian Biomed.* 2011, **5**, 345-352.
115. Weerachayaphorn, J.; Chuncharunee, A.; Mahagita, C.; Lewchalermwong, B.; **Suksamrarn, A.**; Piyachaturawat, P. A protective effect of *Curcuma comosa* Roxb. on bone loss in estrogen deficient mice. *J. Ethnopharmacol.* 2011, **137**, 956-962.
116. Jariyawat, S.; Thammapratip, T.; Suksen, K.; Wanitchakool, P.; Nateewattana, J.; Chairoungdua, A.; **Suksamrarn, A.**; Piyachaturawat, P. Induction of apoptosis in murine leukemia by diarylheptanoids from *Curcuma comosa*. *Cell Biol. Toxicol.* 2011, **27**, 413-423. DOI 10.1007/s10565-011-9196-4.

117. Tocharus, J.; Jamsuwan, S.; Tocharus, C.; Changtam, C.; **Suksamrarn, A.** Curcuminoid analogs inhibit nitric oxide production from LPS-activated microglial cells. *J. Nat. Med.* 2012, **66**, 400-405. DOI 10.1007/s11418-011-0599-6.
118. Su, J.; Sripanidkulchai, K.; **Suksamrarn, A.**; Hu, Y.; Piyachaturawat; P.; Sripanidkulchai, B. Pharmacokinetics and organ distribution of diarylheptanoid phytoestrogens from *Curcuma comosa* in rats. *J. Nat. Med.* 2011, doi: 10.1007/s11418-011-0607-x (20 Nov 2011).
119. Sirion, U.; Kasemsook, S.; Suksen, K.; Piyachaturawat, P.; **Suksamrarn, A.**; Saeeng, R. New substituted C-19-andrographolide analogues with potent cytotoxic activities. *Bioorg. Med. Chem.* 2012, **22**, 49-52.
120. Intapad, S.; Saengsirisuwan, V.; Prasannarong, N.; Chuncharunee, A.; Suvitayawat, W.; Chokchaisiri, R.; **Suksamrarn, A.**; Piyachaturawat, P. Long-term effect of phytoestrogens from *Curcuma comosa*. Roxb. on vascular relaxation in ovariectomized rats. *J. Agric. Food Chem.* 2012, **60**, 758-764.
121. Muanprasat, C.; Sirianant, L.; Soodvilai, S.; Chokchaisiri, R.; **Suksamrarn, A.**; Chatsudhipong, V. Novel action of the chalcone isoliquiritigenin as a CFTR inhibitor: Potential therapy for cholera and polycystic kidney disease. *J. Pharmacol. Sci.* 2012, **118**, 82-91.
122. Tep-areenan, P.; **Suksamrarn, A.** Curcumin and tetrahydrocurcumin restore the impairment of endothelium-dependent vasorelaxation induced by homocysteine thiolactone in rat aortic rings. *Int. J. Pharmacol.* 2012, **8**, 128-133.
123. Chokchaisiri, R.; Innok, P.; **Suksamrarn, A.** Flavonoid glycosides from the aerial parts of *Curcuma comosa*. *Phytochem. Lett.* 2012, **5**, 361-366.
124. Prasannarong, M.; Saengsirisuwan, V.; Piyachaturawat, P.; **Suksamrarn, A.** Improvements of insulin resistance in ovariectomized rats by a novel phytoestrogen from *Curcuma comosa* Roxb. *BMC Compl. Altern. Med.* 2012, **12**, 28 (11 pages).
125. Srimuangwong, K.; Tocharus, C.; Chintana, P. Y.; **Suksamrarn, A.**; Tocharus, J. Hexahydrocurcumin enhances inhibitory effect of 5-fluorouracil on HT-29 human colon cancer cells. *World J. Gastroenterol.* 2012, **18**, 2383-2389. (doi: 10.3748/wjg.v18.i19.1)

126. Bhukhai, K.; Suksen, K.; Bhummaphan, N.; Janjorn, K.; Thongon, N. Tantikanlayaporn, D.; Piyachaturawat, P.; **Suksamrarn, A.**; Chairoungdua, A. A phytoestrogen diarylheptanoid mediates estrogen receptor/Akt/Glycogen synthase kinase 3 $\beta$  protein-dependent activation of the Wnt/ $\beta$ -catenin signaling pathway. *J. Biol. Chem.* 2012, **287**, 36168-3617.
127. Duangmano, S.; Sae-lim, P.; **Suksamrarn, A.**; Domann, F. E.; Patmasiriwat, P. Cucurbitacin B inhibits human breast cancer cell proliferation through disruption of microtubule polymerization and nucleophosmin/B23 translocation. *BMC Compl. Altern. Med.* 2012, **12**, 185.
128. Duangmano, S.; Sae-lim, P.; **Suksamrarn, A.**; Patmasiriwat, P.; Domann, E. F. Cucurbitacin B causes increased radiation sensitivity in human breast cancer cells via G2/M cell cycle arrest. *J. Oncol.* 2012, doi: 10.1155/2012/601682 (8 pages).
129. Nateewattana, J.; Saeeng, R.; Kasemsook, S.; Suksen, K.; Dutta, S.; Jariyawat, S.; Chairoungdua, A.; **Suksamrarn, A.**; Piyachaturawat, P. *Invest. New Drugs* 2012, doi: 10.1007/s10637-012-9868-9 (13 pages).
130. Aroonrerk, N.; Changtam, C.; Kirtikara, K.; **Suksamrarn, A.** Inhibitory effects of di-*O*-demethylcurcumin on interleukin-1 $\beta$ -induced interleukin-6 production from human gingival fibroblasts. *J. Dent. Sci.* 2012, **7**, 350-358.
131. Leejae S.; Yingyongnarongkul, B.; **Suksamrarn, A.**; Voravuthikunchai, S. P. Synthesis and structure-activity relationship of rhodomyrtone derivatives as antibacterial agent. *Chin. Chem. Lett.* 2012, **23**, 1011-1014.
132. Sudta, P.; Jiarawapi, P.; **Suksamrarn, A.**; Hongmanee, P.; Suksamrarn, S. Potent activity against multidrug-resistant *Mycobacterium tuberculosis* of  $\alpha$ -mangostin analogs. *Chem. Pharm. Bull.* 2013, **61**, 194-203.
133. Chaneiam, N.; Changtam, C.; Munkongdee, T.; Suthatvoravut, U.; Vinichagoon, P.; Vadolas, J.; **Suksamrarn, A.** Fucharoen, S.; Svasti, S. A reduced curcuminoid analog as a novel inducer of fetal hemoglobin. *Ann. Hematol.*, 2013, **92**, 379-386. (doi

10.1007/s00277-012-1604-1)

134. Chaturapanich, G.; Yamthed, R.; Piyachaturawat, P. Chairoungdua, A.; Suvitayavat, W.; Kongsaktrakoon, B.; **Suksamrarn, A.**; Pholpramool, C. Nitric oxide signaling is involved in diarylheptanoid-induced in femoral arterial blood flow in ovariectomised rats. *Clin. Exp. Pharmacol. Physiol.* 2013, **40**, 240-249. (doi: 10.1111/1440-1681.12058)
135. Wonganan, O.; Tocharus, C.; Puedsing, C.; Homvisasevongsa, S.; Sukcharoen; O.; **Suksamrarn, A.** Potent vasorelaxant analogs from chemical modification and biotransformation of isosteviol. *Eur. J. Med. Chem.* 2013, **62**, 771-776. (doi: 10.1016/j.ejmech.2013.01.022)
136. Winuthayanon, W.; Piyachaturawat, P.; **Suksamrarn, A.**; Burns, K. A.; Arao, Y.; Hewitt, S. C.; Pedersen, L. C.; Korach, K. S. The natural estrogenic compound diarylheptanoid (D3): in vitro mechanisms of action and in vivo uterine responses via estrogen receptor  $\alpha$ . *Environ. Health Perspec.* 2013, **121**, 433-439.
137. Muanprasat, C.; Sirianant, L.; Sawasvirojwong, S.; Homvisasevongsa, S.; Soodvilai, S.; **Suksamrarn, A.**; Chatsudhipong, V. Activation of AMP-activated protein kinase by a plant-derived dihydroisosteviol in human intestinal epithelial cell. *Biol. Pharm. Bull.*, 2013, **36**, 522-528.
138. Arunkhamkaew, S.; Athipornchai, A.; Apiratikul, N.; **Suksamrarn, A.**; Ajavakom, V. Novel tetrahydrocurcuminoid dihydropyrimidinone analogue as potent acetylcholinesterase inhibitor. *Bioorg. Med. Chem. Lett.*, 2013, **23**, 2880-2882.
139. Tantikalayaporn, D.; Robinson, L. J.; **Suksamrarn, A.**; Piyachaturawat, P.; Blair, H. C. A diarylheptanoid phytoestrogen from *Curcuma comosa*, 1,7-diphenyl-4,6-heptadien-3-ol, accelerates human osteoblast proliferation and differentiation. *Phytomedicine*, 2013, **20**, 676-682.
140. Pimkaew, P.; Küblbeck, J.; Petsalo, A.; Jukka, J.; **Suksamrarn, A.**; Juvonen R.; Auriola, S.; Piyachaturawat, P.; Honkakoski, P. Interactions of sesquiterpenes zederone and germacrone with the human cytochrome P450 system. *Toxicol. in Vitro*, 2013, **27**, 2005-2012.
141. Prawatsri, S.; **Suksamrarn, A.**; Chindaduang, A.; Rukachaisirikul, T. Abietane diterpenes from *Hyptis sauveolens*. *Chem. Biodiver.* 2013, **10**, 1494-1500.
142. Thussagunpanit, J.; Jutamanee, K.; Kaveeta, L.; Chai-arree, W.; Pankean, P.; **Suksamrarn, A.** Effects of a brassinosteroid and an ecdysone analogue on pollen germination of rice under heat stress. *J. Pestic. Sci.* 2013, **38**, 105-111.

143. Pimkaew, P.; Suksen, K.; Somkid, K.; Chokchaisiri, R.; Jariyawat, S.; Chuncharunee, A.; **Suksamrarn, A.**; Piyachaturawat, P. Zederone, a sesquiterpene from *Curcuma elata* Roxb. is hepatotoxic in mice. *Int. J. Toxicol.* 2013 32: 454 originally published online 30 September 2013 (DOI: 10.1177/1091581813504595)
144. Chokchaisiri, R.; Pimkaew, P.; Piyachaturawat, P.; Chalermlin, R.; **Suksamrarn, A.** Cytotoxic sesquiterpenoids and diarylheptanoids from the rhizomes of *Curcuma elata* Roxb. *Rec. Nat. Prod.* 2014, **8**, 46-50.
145. Somchit, M.; Changtam, C.; Kimseng, R.; Utaipan, T.; Lertcanawanichakul, M.; **Suksamrarn, A.**; Chunglok, W. Demethoxycurcumin from *Curcuma longa* rhizome suppresses iNOS induction in an *in vitro* inflamed human intestinal mucosa model *Asian Pac. J. Cancer Prev.* 2014, **15**, 1807-1810.

**Patents:**

1. **Suksamrarn, A.**; Ponglikitmongkol, M.; Piyachaturawat, P.; Chankam, A.; Chindaduang, A.; Ngamkum, A. Diarylheptanoids with estrogenic activity. *Thai Patent Application*, No. 601002983, 27 June 2006.
2. Suksamrarn, S.; Sudta, P.; Kunchanawatta, S.; Ratananukul, P.; **Suksamrarn, A.** Xanthones with antimycobacterial activity. *Thai Patent Application*, No. 701003620, 20 July 2007.
3. **Suksamrarn, A.**; Changtam, C.; Hongmanee, P. Isoxazole analogues of curcuminoids and their mixture with antimycobacterial activity. *Thai Patent Application*, No. 801003853, 25 July 2008.
4. Supaphol, P.; Rungrote, M.; **Suksamrarn, A.** Method for producing fibers from chitosan and tetrahydrocurcumin by electrospinning method for medical applications. *Thai Patent Application*, No. 901000706, 19 February 2009.
5. Supaphol, P.; Sikareepaisan, P.; **Suksamrarn, A.** “Method for producing electrospun gelatin fiber mats containing a herbal-*Centella asiatica*-extract by electrospinning

method". *Thai Petty Patent Application*, No. 903001016, 14 September 2009.

6. Suksamrarn, S.; Sudta, P.; Jiarwapi, P.; Ratana-nukul, P; **Suksamrarn, A.**; Jaratrungtawee, A. Xanthones with anti-herpes simplex activity. *Thai Patent Application*, No. 901004650, 16 October 2009.
7. Suksamrarn, S.; Sudta, P.; Ratananukul, P; **Suksamrarn, A.** Xanthone analogues with anti-herpes simplex activity. *Thai Petty Patent Application*, No. 903001233, 16 October 2009.
8. **Suksamrarn, A.**; Homvisasevongsa, S.; Takeuchi, Y. Ecdysteroid analogues with plant growth promoting activity. *Thai Patent Application*, No. 1001001633, 20 October 2010.
9. Saeeng, R.; Sirion, U.; Kasemsuk, S.; Suksamrarn, A.; Piyachaturawat, P.; Suksaen, K. Derivatives of andrographolide as anti-cancer drugs. *Thai Patent Application*, No. 1101000272, 25 February 2011.
10. Piyachaturawat, P.; Nateewattana, J.; Suksaen, K.; Saeeng, R.; Kasemsuk, S.; **Suksamrarn, A.**. Inhibition of topoisomerase I and II $\alpha$  by andrographolide analogues. *Thai Patent Application*, No. 1201001923, 26 April 2012.
11. **Suksamrarn, A.**; Athipornchai, A. Phenolic alkanoids with anti-acetylcholinesterase and butyrylcholinesterase inhibitory activities. *Thai Patent Application*, No. 1301000786, 15 February 2013.

#### **Textbooks:**

1. **Suksamrarn, A.** *Organic Chemistry I*. Department of Teacher Education, Ministry of Education, Bangkok, 1981 (in Thai).
2. Reutrakul, V.; Kusamran, K.; Wiriyachittra, P.; Nimgirawath, S.; **Suksamrarn, A.** *Applications of Spectroscopic Techniques in Organic Chemistry*, 2nd Ed. DK Books, 1984 (in Thai).
3. **Suksamrarn, A.** *Advanced Organic Chemistry I*, 7th Ed. Ramkhamhaeng University Press, Bangkok, 2003 (in Thai).
4. **Suksamrarn, A.**; Chuankamnerdkarn, M.; Suavansri, T. *Organic Synthesis*, 6th Ed. Ramkhamhaeng University Press, Bangkok, 2005 (in Thai).

