

## BIBLIOGRAPHY

- Achuthan, C.R., Padikkala, J., Jose, P. 1997. Hypolipidermic effect of *Alpinia galanga* (Rasna) and *Kaempferia galanga* (kachoori). *Indian Journal of Clinical Biochemistry*, 12(1): 55-58.
- Adam, S.S., Hebborn, P., Nichols, J.S. 1968. Pharmacology of ibufenac a nonsteroidal anti & hyphen; inflammatory. *Journal of Pharmacy and Pharmacology*, 20: 305-312.
- Alex, B.L., Peter, A.W. 1999. Identification of a Transcription Factor (NFKB) Necessary for Development of Inflammatory Injury. *Institute for Laboratory Animal Research*, 40(4): 1-10.
- Anonymous. 1959. Wealth of India, Raw materials volume V, New Delhi, India, *Publication and Information Direct.*, CISR, 314 pp.
- Attaway, D.H., Zaborsky, O.R., Marine Biotechnology: Pharmaceutical and Bioactive Natural Products, New York, USA. Pleum Press, pp. 1-23.
- Barber, D. 1997. The Physiology and Pharmacology of Pain: A Review of opioids. *Journal of PeriAnesthesia Nursing*, 12(2): 95-99.
- Baron, R. 2006. Mechanisms of disease: neurophatic pain: a clinical perspective. *Neurology*, 2(2): 95-106.
- Bracht, S. 2000. Management of Pain. Kuhlmann J., Tillement J.P., Vrhovac B., Reidenberg M. (eds.). Clinical Pharmacology: Methods in drug delivery, London, England. McGraw Hill, pp. 752-756.

Brahmer, J., Snade, M.A. 2001. Fever of Unknown Origin. Wilson W.R., Sande M.A. (eds.). Current; Diagnosis and Treatment in Infection Diseases, New York, USA. McGraw Hill, p. 240.

Brooks, J., Tracey, I. 2005. From nociception to pain perception: imaging the spinal and supraspinal pathways. *Journal of Anaesthesia*, 207: 19-33.

Bruce, R.D. 1985. An up-and-down procedure for acute toxicity. *Fundamental and Applied Toxicology*, 5: 151-157.

Campbell, W.I. 2004. Mechanism of Pain. Fee J.H., Bovill J.G. (eds.). Physiology for anaesthesiologists, London, England. Taylor and Francis, pp. 59-68.

Caterina, R.D., Patrono, C. 2002. Artherothrombosis. Kuhlmann J., Tillement J.P., Vrhovac B., Reidenberg M. (eds.). Clinical Pharmacology: Methods in drug delivery, London, England. McGraw Hill, pp. 90-91.

Cervero, F., Laird, J.M. 1999. Visceral pain. *Lancet*, 353: 2145-2148.

Charles, A.C.,Hales, T.G. 2004. From inhibition to excitation: functional effects of interaction between opioid receptors. *Life Science*, 76: 479-485.

Chattopadhyay, D., Arunachalam, G., Ghosh, L., Rajendran, K., Mandal, A.B., Bhattacharya, S.K. 2005. Antipyretic Activity of *Alstonia macrophylla* Wall ex A. DC: An Ethnomedicine of Andaman Islands. *Journal of Pharmacy and Pharmaceutical Sciences*, 8(3): 558-564.

Chao, L.K., Hua, K.F., HSU, H.Y. Cheng, S.S., Lin, I.F., Chen, C.J., Chen, S.T., Chang, S.T. 2007. Cinnamaldehyde inhibits pro-inflammatory cytokines secretion from

- monocytes/macrophages through suppression of intracellular signaling. *Food and Chemical Toxicology*. xxx: xxx-xxx.
- Chau, T. 1989. Pharmacology methods in the control of Inflammation. In *Modern Methods in Pharmacology*, Vol. V, New York, USA. Alan R. Liss, pp. 195-212.
- Chitra, M., Martin, K.P., Sunandakumari, C., Madhusoodanan, P.V. 2005. Protocol for rapid propagation, and to overcome delayed rhizome formation in field established in vitro derived plants of *Kaempferia galanga* L. *Scientia Horticulturae*, 104: 113-120.
- Choochote, W., Chaithong, U., Kamsuk, K., Jitpakdi, A., Tippawongsokol, P., Tuettun, B., Champakaew, D., Pitasawat, B. 2007. Repellent activity of selected essential oils against *Aedesacgypti*. *Fitoterapia*, xx:xxx-xxx.
- Choochote, W., Kanjanapothi, D., Panthong, A., Taesotikul, T., Jitpakdi, A., Chaithong, U., Pitasawat, B. 1999. Larvicidal, adulticidal and repellent effects of *Kaempferia galanga*. Southeast Asian. *Journal of Tropical Medicine Public Health*, 30: 470-476.
- Chu, D.M., Miles, H., Toney, D., Ngyuen, C., Marciano-Cabral, F. 1998. Amebicidal activity of plant extracts from Southeast Asia on *Acanthamoeba spp*. *Parasitlogy Research*, 84: 746-752.
- Clark, W.O., Cumby, H.R. 1975. The antipyretic effect of indomethacin. *Journal of Physiology*, 248: 625-638.
- Coderre, T.J., Katz, J., Vaccarino, A.L., Melzack, R. 1993. Contribution of central neoplasticity to pathological pain: review of clinical and experimental evidence. *Pain*, 52:259-285.

- Collier, H.O., Dinneen, L.C., Johnson, C.A., Schneider, C. 1968. The abdominal constriction response and its suppression by analgesic drugs in the mouse. *British Journal of Pharmacology*, 32: 295-310.
- Connor, J., Makonnen, E., Rostom, A. 2000. Comparison of analgesic effects of Khat (*Catha edulis* Forsk) extract, D-amphetamine and ibuprofen in mice. *Journal of Pharmacy and Pharmacology*, 52:107-110.
- Dalu, A., Blaydes, B.S., Lomax, L.G., Delclos, K.B. 2000. A comparison of the inflammatory response to a polydimethyl siloxane implant in male and female Balb/c mice. *Biomaterials*, 21: 1947-1957.
- Derardt, R., Jougney, S., Delevalce, F., Falhout, M. 1980. Release of prostaglandins E and F in an algogenic reaction and its inhibition. *European Journal of Pharmacology*, 51: 17-24.
- Deraniyagala, S.A., Ratnasooriya, W.D., Goonasekara, C.L. 2003. Antinociceptive effect and toxicological study of the aqueous bark extract of *Barringtonia racemosa* on rats. *Journal of Ethnopharmacology*, 86:21-26.
- DeVane, C.L. 2001. Substance P: A New Era, A New Role. *Pharmacotherapy*, 21(9): 1061-1069.
- DiRosa, M., Giroud, J.P., Willoughby, D.A. 1971. Studies of the acute inflammatory responses induced in rats in different sites by carrageenan and turpentine. *Journal of Pathology*, 104: 15-29.
- DiRosa, M. 1972. Biological properties of carrageenan. *Journal of Pharmacy and Pharmacology*, 24(2): 89-102.

- Donald, G., Rayan. 1992. Nonsteroidal Anti-inflammatory Drugs; Nonopioid Analgesics; Drugs Used in Gout. Katzung B.G (ed.). Basic and Clinical Pharmacology, America, Appleton and Lange. pp. 491-510.
- Dore, M., Sirois, J. 1996. Regulation of P-selectin expression by inflammatory mediators in canine jugular endothelial cells. *Veterinary Pathology*, 33: 662-671.
- Drinkwater, B. 2007. Exercise and Thermal stress. McArdle W.D., Katch F.I., Katch V.L. (eds.). *Exercise physiology; Energy, Nutrition, and Human Performance; Exercise Performance and Environmental Stress* (6<sup>th</sup> ed), Philadelphia, USA. Lippincott Williams and Wilkins, pp. 638-640.
- Drummer, O.H. 2001. Opioids. Drummer O.H. (ed.). *The Forensic Pharmacology of Drugs of Abuse*, London, England. Arnold, pp. 227-239.
- Dubinsky, B., Gebre-Mariam, S., CA petola, R.J., Rosenthal, M.E. 1987. The analgesic drugs: human therapeutic correlates of their potency in laboratory animal models of hyperalgesia. *Agent Actions*, 429: 23-37.
- D'Amour, F.E., Smith, D.L. 1941. A method for determining loss of pain sensation. *Journal of Pharmacology and Experimental Therapeutics*, 72: 74-79.
- Eaton, M. 2003. Common animal models of spasticity and pain. *Journal of Rehabilitation Research and Development*, 40(4): 41-54.
- Fernandez, M.C., Walters, J., Marucha, P. 1996. Transcriptional and post transcriptional regulation of GM-CSF-induced IL-1 beta gene expression in PMN. *Journal of Leukocyte Biology*, 59: 598-603.
- Foegh, M.L., Ramwell, P.W. 2001. The eicosanoids : Prostaglandins, thromboxanes,

- leukotrienes and related compound. Katzung B.G. (ed.). Basic and Clinical Pharmacology (8<sup>th</sup> ed), San Francisco, USA. McGraw Hill, pp. 311-324.
- Ganong, W.E. 1997. Central regulation of visceral function. Ganong W.E. (ed.). Review of Medical Physiology (18<sup>th</sup> ed), San Francisco, USA. Prentice-Hall International, Inc, pp.238-239.
- Gewirtz, J.C., Davis, M. 1997. Second-order fear conditioning prevented by blocking NMDA receptors in amygdala. *Nature*, 388: 471-474.
- Golshani, S., Karamkhani, F., Monsef-Esfehani, H.R., Abdollahi, M. 2004. Antinociceptive effect of the essential oil of *Dracocephalum kotschy*i in the mouse writhing test. *Journal of Pharmacology and Pharmaceutical Science*, 7(1): 76-79.
- Goodman, L.S., Gilman, A.G. 1996. The Pharmacological Basis of Therapeutics (19<sup>th</sup> ed). McGraw Hill, New York, USA. pp, 959-975.
- Gould, B.E., 2002. Inflammation and Healing. Gould B.E. (ed.). Pathophysiology of the Health Professions (2<sup>nd</sup> ed), Philadelphia, USA. W.B. Saunders, pp. 192-199.
- Gouwy, M., Struyf, S., Proost, P., Van Damme, J. 2005. Synergy in cytokine and chemokine networks amplifies the inflammatory response. *Cytokine Growth Factor Reviews*, 16: 561-580.
- Granger, R.E., Campbell, E.L. Johnston, G.A. 2005. (+)-and (-)-borneol: efficacious positive modulators of GABA action at human recombinant  $\alpha_1\beta_2\gamma_2\text{L}$  GABA(A) receptor. *Biochemical Pharmacology*, 69: 1101-1111.

- Gutstein, H.B., Akil, H. 2001. Opioid analgesics. Hardman J.G., Limbird L.E., Gilman A.G. (eds.). Goodman and Gillman: The Pharmacological Basis of Therapeutics (10<sup>th</sup> ed), New York, USA. McGraw Hill, pp. 573-604.
- Gupta, M., Mazumder, U.K., Kumar, R.S., Kumar, T.S. 2003. Studies on anti-inflammatory, analgesic and antipyretic properties of methanol extract of *Caesalpinia bonduc* leaves in experimental animal models. *Iranian Journal of Pharmacology and Therapeutics*, 2: 30-34.
- Guyton, A.C., Hall, J.E. 1997. Somatic sensations : Pain, Headache and thermal sensations. Guyton A.C., Hall J.E. (eds.). Human Physiology and Mechanisms of Disease (6<sup>th</sup> ed), Philadelphia, USA. Saunders, pp. 392-399.
- Hajare, S.W., Chandra, S., Tandan, S.K., Sarma, J., Lal, J., Telang, A.G., 2000. Analgesic and antipyretic activities of *Dalbergia sissoo* leaves. *Indian Journal of Pharmacology*, 32: 357-360.
- Hayes, A.W., 1989. Principle and Methods of Toxicology (2<sup>nd</sup> ed), New York, USA. Raven.
- Hirschhorn, H.H. 1983. Botanical remedies of the former dutch east Indies (Indonesia). *Journal of Ethnopharmacology*, 72: 123-156.
- Hidir, S.M., Ibrahim, H. 1991. Anti-inflammatory of the aqueous extract of the rhizome of *K. galanga* L. 8<sup>th</sup> National Seminar and UNESCO Regional Workshop on Natural Products, University of Malaya, Kuala Lumpur.
- Hosseinzadeh, H., Ramezani, M., Salmani, G.H. 2000. Antinociceptive, anti-inflammatory and acute toxicity effects of *Zataria multiflora* Boiss extracts in mice and rats, *Journal of Ethnopharmacology*, 73: 379–385.

Howard, M. 1993. Fever: causes and consequences. *Neuroscience Biobehavioural Review*, 17: 237-269.

Hu, W.J., Eaton J.W., Ugarova, T.P., Tang, L. 2001. Molecular basis of biomaterial-mediated foreign body reactions. *Blood*, 98: 1231-1238.

Hunskaar, S., Fasmer, O.B., Hole, K. 1985. Formalin test in mice, a useful technique for evaluating mild analgesics. *Journal of Neuroscience Method.*, 14: 69-76.

Ibrahim, B.J., Mohd, S.M.Y., Chen, B.C., Lau, L.C. Ng, L.S. 2003. Antifungal activity of the essential oils of nine Zingiberaceae species, *Formerly International Journal of Pharmacognosy*, 41(5): 392-397.

Ibrahim, H., Rahman, A.A. 1988. Several ginger plants (Zingiberaceae) of potential value. Proceedings of the seminar on Malaysian Traditional Medicine. University of Malaya, Kuala Lumpur, pp. 159-161.

Intaphhuak, S., Panthong, A., Kanjanapothi, D., Taesotikul, T., Krachangchaeng, C., Reutrakul, V. 2004. Anti-inflammatory and analgesic activities of *Mallotus spodocarpus* Airy Shaw. *Journal of Ethnopharmacology*, 90: 69-72.

Ismail, T.S., Gapalakrisan, S., Begum, V.H., Elango, V. 1997. Anti-inflammatory activity of *Salacia oblonga* wall and *Azima tetracantha* Lam. *Journal of Ethnopharmacology*, 56: 145-152.

Jais, A.M.M., Dambisya, Y.M., Lee, T.L. 1997. Antinociceptive activity of *channa stiatus* (ha ruan) extracts in mice. *Journal of Ethnopharmacology*, 57: 125-130.

Jeong, H.W., Han, D.C., Son, K.H., Han, M.Y., Lim, J.S., Ha, J.H., Lee, C.W., Kim, H.M., Kim, H.C., Kwon, B.M. 2003. Antitumor effect of the cinnamaldehyde derivative

- CB403 through the arrest of cell cycle progression in the G2/M phase. *Biochemical and Pharmacology*, 65: 1343-1350.
- Jin, Y.H., Nishioka, H., Yashi, W., Fujita, T., Yonehara, N. 2006. Effect of morphine on the release of excitatory amino acids in the rat hind instep: Pain is modulated by the interaction between the peripheral opioid and glutamate systems. *Neuroscience*, 138: 1329-1339.
- Kanjanapothi, D., Panthong, A., Lertprasertsuke, N., Taesotikul, T., Rujjanawate, C., Kaewpinit, D., Sudhayakorn, R., Choochote, W., Chaithong, U., Jitpakdi, A., Pitasawat, B. 2004. Toxicity of crude rhizome extract of *Kaempferia galanga* L. (Proh Hom). *Journal of Ethnopharmacology*, 90: 359-365.
- Kato, T., Haro, H., Komari, H., Shinomiya, K. 2002. Sequential dynamics of matrix metalloproteinases, tumor necrosis factor- $\alpha$ , vascular endothelial growth factor and plasmin expressions in the resorption process of herniated disc. *The Spine Journal*, 2: 106.
- Katzung, B.G., Furst, D.E. 1998. Nonsteroidal Anti-Inflammatory Drugs; Disease-Modifying Antirheumatic Drugs, Nonopioid Analgesic; Drugs Used in Gout. Reid J.L., Rubin P.C., Whiting, B. (eds.). Clinical Pharmacology (4<sup>th</sup> ed), Oxford, USA. Blackwell Scientific, pp. 202-205.
- Keys, J.D. 1976. Chinese Herbs:Their Botany, Chemistry, and Pharmacodynamics. Charles E. Tuttle Company, Inc., Tokyo.
- Killcross, S., Robbins, T.W., Everitt, B.J. 1997. Different types of fear conditioned behaviour mediated by separate nuclei within amygdale. *Nature*, 388: 377-380.

- Koh, W.S., Yoom, S.Y., Kwon, B.M., Jeong, T.C., Nam, K.S., Han, M.Y. 1998. Cinnamaldehyde inhibits lymphocyte proliferation and modulates T-cell differentiation. *Journal of Immunopharmacology*, 20: 643-660.
- Koster, R., Anderson, M., Bee, E.J. 1959. Acute acid for analgesic screening. *Federation Proceeding*, 18: 412.
- Kosuge, T., Yokca, M., Sugiyama, K., Saito, M., Iwata, Y., Makkura, M., Yamamoto, T. 1985. Studies on anticancer principles in *Biota orientalis* and *Kaempferia galanga*. *Chemistry and Pharmacology. Bulletin*, 33: 5565-5567.
- Kulkantakorn, K. 2004. Brain, Pain, Memory and Management : Pain Mechanisms. The 15<sup>th</sup> Annaul Scientific Meeting of Thai Pain Society, pp. 20-23.
- Kumar, V., Abbas, A.K., Fausto, N. 2005. Acute and Chronic Inflammation. Kumar V., Abbas A.K., Fausto, N. (eds.). Pathologic Basic of Disease (7<sup>th</sup> ed). Philadelphia, USA. saunders. pp. 49-84.
- Laupattarakasem, P., Wangsrimongkol, T., Surarit, R., Hahnvajanawong, C. 2006. In vitro and in vivo anti-inflammatory potential of *Cryptolepsis buchanani*. *Journal of Ethnopharmacology*, xxx: xxx-xxx.
- Le Doux, J.E., Iwata, J., Cicchetti, P., Reis, D.J. 1998. Different projections of the central amygdaloid nucleus mediate autonomic and behavioral correlates of conditioned fear. *Journal of Neuroscience*, 8: 2517-2529.
- Lieu, V.D. 1990. Medical plants in Vietnam. Ha Noi. pp. 239.

Lipman, A.G., Jackson, K.C. 2004. Opioid pharmacotherapy. Warfield C.A., Bajwa Z.H. (eds.). Principles and Practice of Pain Medicine (2<sup>nd</sup> ed), New York, USA. McGraw Hill, pp. 586-588.

Lork, D. 1993. A new approach to practical acute toxicity testing. *Archives of Toxicology*, 54: 275-287.

Liu, W.C., Feldman, S.C., Cook, D.B. et al. 2004. fMRI study of acupuncture-induced periaqueductal gray cavity in humans. *Neuroreport*, 15: 1973-1940.

Macfalane, P.S., Reid, R., Callander, R. 2000. Inflammation. McFalane P.S., Reid R., Callander R. (eds.). Pathology Illustrated (15<sup>th</sup> ed). Edinburgh, Scotland. Churchill Livingstone, pp. 32-42.

Marchioro, M., Blank, M.F.A., Mourao, R.H.V., Antoniolli, A.R. 2005. Antinociceptive activity of the aqueous extract of *Erythrina velutina* leaves. *Fitoterapia*, 76: 637-642.

Martindale, J., Bland-Ward, P.A., Chessell, I.P. 2001. Inhibition of c-fibre mediated sensory transmission in the rat following intraplantar formalin. *Journal of Neuroscience*, 316: 33-36.

Marucha, P.T., Zeff, R.A., Kreutzer, D.L. 1990. Cytokine regulation of IL-1 beta gene expression in the human polymorphonuclear leukocyte. *Journal of Immunology*, 145: 2932-2937.

Matheus, M.E., Berrondo, L.F., Vieitas, E.C., Menezes, F.S., Fernandes, P.D. 2005. Evaluation of the antinociceptive properties from *Brillantaisia palisotii* Lindau stems extract. *Journal of Ethnopharmacology*, 102: 377-381.

Mattison, N., Trimple, A.G., Lasagna, I. 1998. New drug development in the United States, 1963

- through 1984. *Clinical Pharmacology and Therapeutic*, 43: 290-301.
- McMullan, S., Lumb, B.M. 2006. Midbrain control of spinal nociception discriminates between responses evoked by myelinated and unmyelinated heat nociceptors in the rat. *Pain*, 124: 59-68.
- Garcia-Mediavilla, V., Crespo, I., Collado, P.S., Esteller, A., SanchezCampos, S., Tunon, M., Gonzalez-Gallego, J. 2007. The anti-inflammatory flavones quercetin and kaempferol cause inhibition of inducible nitric oxide synthase, cyclooxygenase-2 and reactive C-protein, and down-regulation of the nuclear factor kappaB pathway in Chang Liver cells. *Journal of Ethnopharmacology*, 557: 221-229.
- Miranda, F.G.G., Vilar, J.C., Alves, I.A.N., Holanda, S.C., Antoniolli, A.R. 2001. Antinociceptive and antiedematogenic properties and acute toxicity of *Tubebuia arellaneda* Lor. Ex Griseb. Inner bark aqueous extract. *BMC Pharmacology*, 1: 1-6.
- Mokkhasmit, M., Swatdimongkol, K., Satrawaha, P. 1971. Study on toxicity of Thai medical plants. *Bulletin of the Department of Medical Sciences*, 12: 36-65.
- Monbrison, F., Maitrejean, M., Latour, C., Bugnazet, F., Peyron, F., Barron, D., Picot, S. 2006. In vitro antimalarial activity of flavonoid derivatives dehydrosilybin and 8-(1';1)-DMA-kaempferide. *Acta Tropica*. 97; 102-107.
- Mundey, M.K., Mason, R., Wilson, V.G. 1998. Selective potentiation by ouabain of naloxone-induced withdrawal contractions of isolated guinea-pig ileum following acute exposure to morphine. *British Journal of Pharmacology*, 124: 911-916.
- Murphy, H.S., Ward, P.A. 2005. Systemic Manifestations of Inflammation. Gorstein F., Rubin E., Rubin R., Schwarting R., Strayer D. (eds.). Rubin's Pathology:

- Clinicopathologic Foundations of Medicine (4<sup>th</sup> ed). Philadelphia, USA.  
Lippincott Williams and Wilkins, pp. 81-82.
- Mustafa, A.M., Shahuddin, H., Ibrahim, H., Mustafa, M.R. 1995. Mechanism of vasorelaxant effect of the chloroform extract of *Kaempferia galanga* L. rhizome on rat thoracic aorta. 11<sup>th</sup> Annual Scientific Conference of the Malaysian Society of Pharmacology and Physiology.
- Mustafa, M.R., Mustafa, A.M. and Hashim, S. 1996. Vasorelaxant effects of the chloroform extract of *Kaempferia galanga* on smooth muscles of the rat aorta. *Asia Pacific Journal of Pharmacology*, 11: 97-101.
- Mutschler, E., Derendorf, H. 1995. Pathophysiology of pain. Mutschler E., Darendorf H., Körting K., Estes K. (eds.). Drug actions: Basic principle and therapeutic, Stuttgart, Germany. Medpharm CRC, pp. 149-167.
- Nakamura, K., Honda, K., Mizutani, T., Akiho, H., Harada, N. 2006. Novel strategies for the treatment of inflammatory bowel disease: selective inhibition of cytokines and adhesion molecules. *World Journal of Gastroenterology*, 12: 4628-4635.
- Nakao, H., Shibu, C. 1924. *Yakukaku Zasshi*, 44, pp. 913.
- Neal, M.J. 1992. Non-steroidal anti-inflammatory drugs(NSAIDs). Neal M.J. (ed.). Medical Pharmacology at a Glance (2<sup>nd</sup> ed), Oxford, USA. Blackwell Science, pp. 62-67.
- Nero, T., Miyase, T., Kuroyanagi, M., Veno, A., Fukushima, S. 1983. Monoamine oxidase inhibitor from the rhizomes of *Kaempferia galanga* L. *Chemistry and Pharmacology Bulletin*, 31: 2708-2711.

Norris, C. 2004. Diagnosis and Management : Healing. Norris (ed.). Sports Injuries (3<sup>rd</sup> ed). Edinburgh , Scotland. Butterworth Heine mann. pp. 30-38.

Olajide, O.A., Makinde, J.M., Awe, S.O. 1999. Effects of the aqueous extract of *Bridelia ferruginea* stem bark on carrageenan-induced oedema and granuloma tissue formation in rats and mice. *Journal of Ethnopharmacology*, 66: 113-117.

Oliveira, F.A., Costa, C.L.S., Chaves, M.H., Almeida., F.R.C., Cavalcante, I.J.M., Lima, A.F., Lima, R.C.P., Silva, R.M., Campos, A.R., Santos, F.A., Rao, V.S.N. 2005. Attenuation of capsaicin-induced acute and visceral nociceptive pain by  $\alpha$ -and  $\beta$ -amyrin, a triterpene mixture isolated from *protium heptaphyllum* resin in mice. *Life sciences*, 77: 2942-2952.

Othman, R., Ibrahim, H., Mohd, M.A., Awang,, K., Gilanni, A.U. and Mustafa, M.R. 2002. Vasorelaxant effect of ethyl cinnamate isolated from *Kaempferia galanga* on smooth muscles of the rat aorta. *Planta Med*, 68(7): 655-657.

Othman, R., Ibrahim, H., Mohd, M.A., Mustafa, M.R., Awang, K. 2006. Bioassay-guided isolation of a vasorelaxant active compound from *Kaempferia galanga* L. *Phytomedicine*, 13:61-66.

Panthong, A., Norkaew, P., Kanjanapothi, d., Taesotikul, T., Anantachoke, N., Reutrakul, V. 2007. Anti-inflammatory, analgesic and antipyretic activities of the extract of gamboges from *Garcinia hanburyi* Hook f. *Journal of Ethnopharmacology*, 111: 335-340.

Panthong, A., Supraditaporn, W., Kanjanapothi, D., Taesotikul, T., Reutrakul, V. 2007. Analgesic, anti-inflammatory and venotonic effects of *Cissus quadrangularis* Linn. *Journal of Ethnopharmacology*, 110: 264-270.

- Park, G., Fulton, B., Senthuran, S. 2000. The management of acute pain. Park G., Fulton B., Senthuran s. (eds.). What is pain (2<sup>nd</sup> ed), Oxford, USA. Oxford University Press, pp. 12-13.
- Parsons, K. 2003. Human thermal physiology and thermoregulation. Parson K. (ed.). Human Thermal Environments: The effects of hot, moderate, and cold environments on human health, comfort and performance (2<sup>nd</sup> ed), London, England. Taylor and Francis, pp. 31-48.
- Peck, T.E. 2000. Analgesics. Peck, T.E. (ed.). Pharmacology for anaesthesia and intensive care, London, England. Greenwich Media Ltd., pp. 101-112.
- Papagallo, M. 2005. The Neurological Basis of Pain., New York, USA. McGraw Hill. pp. 2-5.
- Perry, M., Metzger, J. 1980. Medical Plants of East and Southeast Asia. Attributed Properties and Uses, Cambridge, M.A, MIT Press, pp. 442.
- Puthan, M., Bhaskara, P., Sanjiva, R.B., Simonsen, J.L. 1926. Constituents of some Indian essential oils: Essential oil from the rhizome of *Kaempferia galanga*. *Journal of Indian Institute Science*, 9:133-139.
- Raj, P.P. 1996. Pain mechanisms. Raj P.P. (ed.), Pain Medicine: A Comprehensive Review (1<sup>st</sup> ed). Missouri, USA. Mosby-Year, pp. 12-23.
- Ramprasath, V.R., Shanthi, P., Sachdanandam, P. 2004. Anti-inflammatory effect of *Semecarpus anacardium* Linn. Nut Extract in acute and chronic inflammatory conditions. *Biological and Pharmacology Bulletin*, 27(12): 2028-2031.
- Rawlins, M.D., Postgrad, R. 1973. Mechanism of salicylate-induced antipyresis. *Pharmacology Thermoregulatory Proceedings Satellite Symposium*, 311-324.

- Reanmongkol, W., Itharat, A., Bouking, P. 2007. Investigation of the anti-inflammatory, analgesic and antipyretic activities of the extracts from the rhizome of Dioscorea membranacea Pierre in experimental animals. *Songklanakarin Journal of Science and Technology*, 29(suppl. 1): 49-57.
- Reid, J.L., Rubin, P.C., Whiting, B. 1992. Anesthesia and the relief of pain. Reid J.L., Rubin P.C., Whiting, B. Lecture Notes in Clinical Pharmacology (4<sup>th</sup> ed). Oxford, USA. Blackwell Scientific, pp. 202-205.
- Remes, A., Williums, D.F. 1992. Immune response in biocompatibility. *Biomaterials*, 13: 731-743.
- Rhaodes, R., Pflanzer, R. 2003. Regulation of body temperature. Rhaodes R. (ed.). Human Physiology (4<sup>th</sup> ed), Australia. Thomson, pp. 830-840.
- Richardson, J.D., Aanonsen, L., Hargreaves, K.M. 1998. Antihyperalgesic effects of spinal cannabinoids. *European Journal of Pharmacology*, 345: 145-153.
- Rowbotham, D.J., Macintyre, P.M. 2003. Applied physiology of nociception. Beauliev P., Rice, A.S.C. (eds.). Clinical Pain Management: Acute pain, London, England. Hodder Headline, pp. 1-35.
- Rupniak, N.M.J., Longmore, J., Hill, R.G. 2000. Role of bradykinin B<sub>1</sub> and B<sub>2</sub> receptors in nociception and inflammation. Wood, J.N. (ed.). Molecular Basis of Pain Induction. New York, USA. Wiley Liss Inc., pp. 149-173.
- Sadikun, A. 1987. The effect of water extract of *K. galanga* L. rhizome on superfused guinea-pig tracheal chain and ileum preparation and mice hind paw edema. Proceeding of the Fourth Annual Seminar of the Natural Products, Universiti Putra, Malaysia.

- Scheller, J., Ohnesorge, N., Rose-John, S. 2006. Interleukin-6 trans-signalling in chronic inflammation and cancer. *Journal of Immunology*, 63: 321-329.
- Serpell, M. 2006. Anatomy, physiology and pharmacology of pain. *Surgery*, 24(10): 350-353.
- Shafiee, A., Bagheri, M., Shekarchi, M. 2003. The antinociceptive activities of 1-(4-aryl-2-thiazolyl)-3,5-disubstituted-2 pyrazolines in mouse writhing test. *Journal of Pharmaceutical Sciences*, 6(3): 360-362.
- Sherwood, L. 2001. The Peripheral Nervous System : Afferent Division; Special senses. Sherwood L. (ed.). Human Physiology: From cells to Systems (4<sup>th</sup> ed), Australia. Brook, pp. 180-182.
- Shanmugasundaram, P., Venketaraman, S. 2005. Anti-nociceptive activity of *Hygrophila auriculata* (SCHUM) Hein. *Africa Journal CAM.*, 2(1): 62-69.
- Shibata, M., Ohkubo, T., Takahashi, H., Inoki, R. 1989. Modified formalin test: characteristic biphasic pain response. *Pain*, 38: 347-352.
- Silbernagl, S., Lang, F. 2000. Temperature, energy. Silbernagl S., Lang F. (eds.). Color Atlas of Pathophysiology, Stuttgart, German. Thieme, pp. 21-22.
- Simon, L.S. 2003. Nonsteroidal anti-inflammatory drugs and cyclooxygenase-2 selective inhibitors. Smith H.S. (ed.). Drugs for Pain. Philadelphia, USA. Hanley and Belfus, pp 41-47.
- Singleton, J.R. 2005. Evaluation and treatment of painful peripheral polyneuropathy. Seminar in neurology. 25(2): 185-193.
- Sirirugsa, P. 1992. Taxonomy of the genus *Kaempferia* (Zingiberaceae) in Thailand. *Thai Forest Bulletin*, 19: 1-15.

Sirirugsa, P. 1997. Thai Zingiberaceae: Species diversity and their uses. *Pure Application Chemistry*, 70(11): 4-5.

Sirirugsa, P. 1997. International Conference on Biodiversity and Bioresources: Conservation and Utilization, 23-27 November, Phuket, Thailand.

Smith, CM. 1995. Opioid analgesics-agonist and antagonists. Smith C.M., Reynard A.M. (eds.). *Essentials of Pharmacology*, Philadelphia, USA. Saunders, pp.132-146.

Sodibyo, R.S. 2000. The contents of volatile oil isolated from *kaempferia galanga* rhizomes. Mass spectroscopic approach. *Majalah Parmasi*, 11(3): 142-149.

Somchit, M.N., Sulaiman, M.R., Zuraini, A., Samsuddin, L., Somchit, N., Isvaf, D.A., Moin, S. 2004. Antinociceptive and anti-inflammatory effects of *Centella asiatica*. *Indian Journal of Pharmacology*, 36(6): 377-380.

Steven, S.A., Lowe, J. 2000. Tissue responses to damage. Steven S.A., Lowe J. (eds.). *Pathology* (2<sup>nd</sup> ed). Edinburgt, Scotland. *Butterworth Heine mann*. pp. 30-38.

Stoelting, R.K., Hillier, S.C. 2006. Opioid antagonists and agonists. Stoelting R.K., Hillier, S.C. (eds.). *Handbook of Pharmacology and Physiology in Anesthetic Practice* (2<sup>nd</sup> ed). Philadelphia, USA. Lippincott Williams and Wilkins, pp. 83-117.

Stucky, C.L., Gold, M.S., Zhang, X. 2001. Mechanisms of pain. *PNAS*, 98: 11845-11846.

Swingle, K.F., Shideman, F.E. 1972. Phases of the inflammatory response to subcutaneous implantation of cotton pellet and their modification by certain anti-inflammatory agents. *Journal of Pharmacology and Experimental Therapeutic*, 183: 226-234.

- Suleyman, H., Demirezer, L.O., Kuruuzum, A., Banoglu, Z.N., Gocer, F., Ozbakir, G., Gepdiremen, A. 1999. Antiinflammatory effect of the aqueous extract from *Rumex patientia* L. roots. *Journal of Ethnopharmacology*, 65: 141-148.
- Tanasiriwattana, N., Natakuatung, s., Tanajaro, T. 1997. Chemical composition and antimicrobial activity of essential oil from *Kaempferia galanga*, *K. parviflora* and *K. angustifolia* (Abstract). Chulalongkorn University.
- Tang, L., Eaton, J.W. 1995. Inflammatory responses to biomaterials. *American Journal of Clinical Pathology*, 103: 466-471.
- Tanimoto, S. Nakagawa, T., Yamauchi, Y., Minami, M., Satoh, M. 2003. Differential contributions of the basolateral and central nuclei of the amygdale in the negative affective component of chemical somatic and visceral pains in rats. *European Journal of Neuroscience*, 18: 2343-2350.
- Tekeda, K., Kaisho, T., Akira, S. 2003. Toll-like receptors. *Annual Review of Immunology*. 21; 335-376.
- Tewtrakul, S., Yuenyongsawad, S., Kumee, S., Atsawajaruwan, L. 2005. Chemical components and biological activities of volatile oil of *Kaempferia galanga* Linn. *Songklanakarin Journal of Science and Technology*, 27(suppl.2): 503-507.
- Tewtrakul, S., Subhadhirasakul, S. 2007. Anti-allergic activity of some selected plants in the Zingiberaceae family. *Journal of Ethnopharmacology*, 109: 535-538.
- Thomas, E., Shanmugam, J., Rafi,M.M. 1996. Antibacterial activity of plants belonging to Zingiberaceae family. *Biomedicine*, 16(2): 15-20.
- Tjolsen, A., Berge, O.G., Hunskaar, S., Rosland, J.H., Hole, K. 1992. The formalin test: an

- evaluation of the method. *Pain*, 51: 5-17.
- Tjolsen, A., Rosland, J.H., Berge, O.G., Hole, K. 1991. The increasing temperature hot plate test: An improved test of nociception in mice and rats. *Journal of Pharmacology methods*, 25: 241-250.
- Tung, Y.T., Chua, M.T., Wang, S.Y., Chang, S.T. 2007. Anti-inflammation activities of essential oil and its constituents from indigenous cinnamon (*Cinnamomum osmophloeum*) twigs. *Bioresource Technology*, xxx: xxx-xxx.
- Tungtrongjit, K. 1978. *Pramuan Suphakun Ya Thai* (In Thai). (2<sup>nd</sup> ed.), Bangkok.
- Vander, A.J., Sherman, J.H., Luciano, D.S. 1994. Regulation of total-body energy balance and temperature. Vander A.J., Sherman J.H., Luciano D.S (eds.). *Human Physiology: The mechanisms of body function* (6<sup>th</sup> ed), New York, USA. McGraw Hill, pp. 637-643.
- Vane, J., Botting, R. 1987. Inflammation and the mechanism of action of anti-inflammatory drugs. *Journal of the Federation of American Societies for Experimental Biology*, 1:89-96.
- Verma, P.R., Deshpande, S.A., Rangari, V.D. 2007. Antinociceptive activity of aqueous extract of *Pachyptera hymenaea* (DC.) in mice. *Journal of Ethnopharmacology*, 112: 203-206.
- Vimala, S., Norhanom, A.W., Yadav, M. 1999. Anti-tumor promoter activity in Malaysian ginger rhizobia used in traditional medicine. *British Journal of Cancer*, 80: 110-116.
- Vinegar, R., Schreiber, W., Hugo, R. 1969. Biphasic development of carrageenan oedema in rats. *Journal of Pharmacology and Experimental Therapeutics*, 166: 96-103.

- Wagh, N.K., Deokar, H.S., Rathi, B.S., Bodhankar, S.L., Kulbarni, V.M. 2006. Anti-inflammatory and analgesic activity of 4-methyl biphenyl-2-(substituted phenyl) carboxamide analogs in animal models of inflammation. *Pharmacologyonline*, 2: 1-13.
- Wall, P.D., Melzack, R. 1994. Peripheral neural mechanisms of nociception. Wall P.D., Melzack R. (eds.). *Textbook of Pain* (3<sup>rd</sup> ed), Edinburgh, Scotland. Churchill Livingstone, pp. 27-29.
- Wang, M.B. 1995. Cutaneous olfactory and gustatory sensation. Bullock J., Boyle J., Wang M.B. (eds.). *Physiology* (3<sup>rd</sup> ed), Philadelphia, USA. Williams and Wilkins, pp. 55-64.
- Way, W.L., Fields, H.L., Way, E.L. 1992. Opioid analgesics and antagonists. Reid J.L., Rubin P.C., Whiting B. (eds.). *Lecture notes on clinical Pharmacology* (4<sup>th</sup> ed). Oxford, England. Blackwell scientific publications, pp. 202-205.
- Way, W.L., Fields, H.L., Way, E.L. 1998. Opioid analgesics and antagonists. Katzung, B.G. (ed.). *Basic and Clinical Pharmacology* (7<sup>th</sup> ed), USA. Prentice Hall, pp. 512-513.
- Winter, C.A., Rusley, E.A., Nuss, C.W. 1962. Carrageenan-induced edema in hind paw of the rat as an assay for anti-inflammatory drugs. *Proceeding of the Society for Experimental Biology and Medicine*, 111: 544-547.
- Wong, C.H, Day, P., Yarmush, J., Wu, W., Zbuzek, U.K. 1994. Nifedipine-induced analgesic after epidural injections in rats. *Anesthesia and Analgesic*, 79: 303-306.
- Woolfe, G., MacDonald, A.D. 1944. The evaluation of the analgesic action of pethidine hydrochloride (DEMEROL). *Journal of Pharmacological and Experimental Therapeutics*, 80: 300-307.

- Xue, Y., Chen, H. 2002. Study on tha anti-carcinogenic effects of three compounds in *Kaempferia galanga* L. *Wei Sheng Yan Jiu*, 31(4): 247-251.
- Yaksh, T. 1999. Central pharmacology of nociceptive transmission. Wall P., Melzack R. (eds.). *Textbook of Pain*, London, England. Harcourt publishers Ltd., pp. 253-308.
- Yonathan, M., Asves, K., Assefa, A., Bucar, F. 2006. *In vivo* anti-inflammatory and anti-nociceptive activities of *Cheilanthes farinosa*, *Journal of Ethnopharmacology*, 108: 462-470.
- Zaeoung, S., Plubrukarn, A., Kaewpradub., N. 2005. Cytotoxic and free radical scavenging activities of Zingiberaceae rhizome. *Songklanakarin Journal of Science and Technology*, 27(4): 799-812.
- Zakaria, M. and Mustafa, A.M. 1994. Traditional Malay Medical Plants. Fajor Bakti, Kuala Lumpur, p. 129.
- Zakaria, Z.A., Sulaiman, M.R., Gopalan, H.K., Abdul Ghani, Z.D.F., Raden Mohd, R.N.S., Mat Jais, A.M., Abdullah, F.C. 2007. Antinociceptive and anti-inflammatory properties of *Corchorus capsularis* leaves chloroform extract in experimental animal models. *Yakugaku Zasshi*, 127(2): 359-365.