DRUG EVALUATING MODEL FOR ANTICANCER ACTIVITY OF A WELL-KNOWN THAI FOLKLORIC REMEDY

Dalad Pornsiriprasert[1], *Porntipa Picha*[2], *Kanchana Ketsa-ard*[3] *Punya Temcharoen*[4], *Panas Chalermsanyakorn*[5], *Kanlaya Preechanukool*[2]

(1) *Department of Pharmacology, Faculty of Graduate Studies, Mahidol University, Bangkok 10700, Thailand*

(2) *Research Division, National Cancer Institute, Bangkok 10400,Thailand*

(3) *Department of Pharmacology, Faculty of Medicine, Siriraj Hospital, Bangkok 10700, Thailand*

(4) *Department of Pathobiology, Faculty of Science, Mahidol University, Bangkok 10400, Thailand*

(5) *Department of Pathology, Faculty of Medicine, Ramathibodi Hospital, Bangkok 10400, Thailand*

A set of Thai folkloric remedy consists of five species of medicinal plants i.e. *Ludwigia hyssopifolia* (G.Don) Ewell., *Polygala chinensis* Linn., *Canna indica* Linn., *Smilax carbularia* Kunth C., and *Climacanthus siamensis* Brem., and five medicinal animals. This remedy was claimed to be more effective in the treatment of patients with mammary tumors. The hormone-dependent mammary tumor induced by 7,12-DMBA was used for testing anticancer activity of the plant extract of this remedy. This mammary tumor in rats is closely parallel to its human counterpart. Female Wistar rats fed 130 mg/kg DMBA singly developed mammary tumors 30.67% (73 out of 238 survival rats) which classified by their histology to 7 subdivisions. The appearing rates were adenocarcinoma 69.9%, fibroadenoma 12.3%, carcinosarcoma 8.2%, adenocarcinoma with squamus cell metaplasia 6.8%, fibroma 4.1%, intraductal papillomatosis 1.4% and adenosis 1.4%. Treatment in 37 malignant mammary tumor bearing rats by daily dose of 1,000 mg/kg the plant extract can increase survival rate ($P = 0.041$) and prolong survival time ($P = 0.025$) singnificantly comparing to the solvent control group.