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### **SURAT PENGESAHAN TERJEMAHAN JUDUL SKRIPSI**

Ketua Translation Center (TC) Language Development Center (LDC) Universitas Muhammadiyah Purwokerto (UMP) menerangkan dengan sesungguhnya bahwa:

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Program Studi : Pendidikan Dokter

Fakultas : F. Kedokteran

Telah meminta TC LDC UMP untuk menerjemahkan judul skripsi:

#### **LITERATURE REVIEW: ANALISIS SENYAWA AKTIF EKSTRAK DAN FRAKSI TANAMAN BERPOTENSI SEBAGAI ANTIPLATELET**

Yang diterjemahkan menjadi:

*A LITERATURE REVIEW: AN ANALYSIS OF ACTIVE COMPOUNDS OF POTENTIAL PLANTS EXTRACT AND FRACTION AS AN ANTIPLATELET*

Demikian surat pengesahan ini dibuat untuk dapat digunakan sebagaimana mestinya.

Purwokerto, 15 Januari 2021

Penerjemah : Aldias Surya Dadari, M.Pd.

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## A LITERATURE REVIEW: AN ANALYSIS OF ACTIVE COMPOUNDS OF POTENTIAL PLANTS EXTRACT AND FRACTION AS AN ANTIPLATELET

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### ABSTRACT

*Background: Stroke still remains the main factor of illness and mortality in the world. Research finds aspirin resistant in 5-60% of cases, it is necessary to develop further research related to antiplatelet therapy. In the anti-platelet research on plant extracts, some showed significant results.*

*Objective: To determine the active compound extract, plant fraction, mechanism of action, extraction method, and how to isolate the active compound with antiplatelet activity.*

*Method: A study/literature review with a systematic review approach, data sources obtained from original articles in GoogleScholar database, PubMed. It was obtained 32 kinds of literature through data quality analysis and topic suitability. Data synthesis was conducted by the PICO method.*

*Result: 30 journals presented significant activity, 2 were insignificant, the most compound found was flavonoids, and the fraction was quercetin. The mechanism, the compound worked as an antiplatelet, antithrombotic. The extraction methods were maceration, reflux, juice, sonication, soxhlet, and distillation. For the isolation method, the researcher applied KK, HPLC, TLC, and NMR.*

*Conclusion: The results discovered that AGE and raw, boiled, fried garlic did not have antiplatelet activity, both were tested in vivo. The results stated that extracts of strawberries, grape seeds, Allium sp., Bay leaves, mango peels, tomatoes, Hawthorn leaves, C.aromatica Salisb., Red ginger rhizome, G.verrucosa, S.polycystum, olive leaves, M. alba, P.baumii, R.vernicflua, A.shikokiana, sweet leaf bush, field milk thistle leaf, red cabbage, M.obovata, shoebutton ardisia leaf, kajajahi leaves, bilimbi tree leaves, U.macrocarpa, M.citrifolia, C.limon, L.japonica, E. bicyclis, S.deserta, V.labrusca had antiplatelet activities. The most active compounds which contained anti-platelet was flavonoid activity, the fraction was quercetin. The mechanism of action was on the COX-1, AA, TXA2, P13K pathways, increased cAMP, VASP stimulation. The extraction methods of active compounds were by maceration, reflux, soxhlet, sonication, juice, distillation. The isolation methods of active compounds were KK, HPLC, TLC, NMR.*

*Keywords: antiplatelet, active compound, extract, fraction*

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