

**B085 New lactoyl glycoside quercetin from *Melia azedarach* leaves**J.Y. Salib<sup>a</sup>, H.N. Michael<sup>a</sup> and S.I. El-Nogoumy<sup>b</sup><sup>a</sup> Chemistry of Tanning Materials and Proteins Department, National Research Centre, Dokki, Cairo, Egypt. <sup>b</sup> Chemistry and Plant Taxonomy Department, National Research Centre, Dokki, Cairo, Egypt.

*Melia* is a fast growing deciduous tree, native to southwestern Asia, and is cultivated and naturalized in many warm and temperate countries of the world. Different parts of the tree, such as the bark and the leaves are used in folk medicine (1). The aqueous ethanolic extract of the aerial parts of this plant afforded four known flavonoids namely: kaempferol-3-O-rutinoside, 3-O-rhamnoside, quercetin-3-O-rutinoside and 3-O-rhamnoside (two of which were previously isolated from this plant (2); along with two new compounds; quercetin -3-O-[rhamnosyl 1→6 (4''-lactoyl glucoside)]-4'-O-glucoside and cinnamoyl-1- $\alpha$ -L-rhamnoside. The structure elucidation was based on <sup>1</sup>H- and <sup>13</sup>C-NMR together with the different physical and chemical investigations.

Among all flavonoids so far tested, quercetin and its derivatives showed pharmaceutical activities e.g. cytotoxic activity *in vitro* or *vivo* (3), strong spasmolytic activity (4) and influence on the metabolism of blood vessel walls, while the cinnamic acid derivatives play a multiplicity of roles in environment (3). For the above reasons the pharmacological activity of the isolated compounds are under investigation.

**References:** 1. El-Hadidi, M.N. and Boulos, L. (1988) *The Street Trees of Egypt*, The American University in Cairo Press. 2. Marco, J.A. et. al. (1986), *J. Nat. Prod.*, 49(1), 170. 3. Wagner, H. (1977) in *Biochemistry of Plant Phenolics* (Eds. T. Swain, J.B. Harborne and C.F. Van Sumere), Plenum Press, New York and London, P.589. 4. Bohm, K. (1967) *Die Flavonoide*, Ed. Cantor KG, Aulendorf/Wurt.

**B086 Constituents isolated from *Patrinia saniculaefolia* Hemsley**Ren-Bo An<sup>a</sup>, Kun Ho Son<sup>b</sup>, Hyun Pyo Kim<sup>c</sup>, Sam Sik Kang<sup>d</sup>, Hyeun Wook Chang<sup>e</sup>, Young Ho Kim<sup>a</sup>, KiHwan Bae<sup>a</sup><sup>a</sup> College of Pharmacy, Chungnam National University, Taejon 305-764, Korea. <sup>b</sup> Department of Food and Nutrition, Andong National University, Andong, 760-749, Korea. <sup>c</sup> College of Pharmacy, Kangwon National University, Chuncheon, 200-701, Korea. <sup>d</sup> Natural Products Research Institute, Seoul National University, Seoul, 110-460, Korea. <sup>e</sup> College of Pharmacy, Yeungnam University, Kyongsan, 712-749, Korea.

*Patrinia saniculaefolia* Hemsley (Valerianaceae) is an endemic species of the genus *Patrinia* in Korea (1), which has not been clarified as to its constituents. Several plants of the genus *Patrinia* have been used as traditional folk medicine in Korea and China for the treatment of initial stages of appendicitis, perityphlitis, neuralgia, insomnia in neurasthenia, psychoses, acute bacterial inflammation, and as emmenagogue (2). The whole plant was extracted with methanol; the extract was suspended in H<sub>2</sub>O and successively partitioned with hexane, CH<sub>2</sub>Cl<sub>2</sub> and BuOH. Repeated silica gel column chromatography and reversed phase HPLC from the hexane soluble fraction afforded two new iridoids (**1** and **2**), together with the known compounds  $\beta$ -farnesene, squalene, nardostachin, oleanolic acid, oleanonic acid, 3,2,3-dihydroxy-urs-12-ene-28-oic acid, 3-O- $\alpha$ -L-arabinopyranosyl-oleanolic acid,  $\beta$ -sitosterol-3-O- $\beta$ -D-glucopyranoside, 3-O- $\beta$ -D-glucopyranosyl-oleanolic acid, and 3-O-[ $\beta$ -D-xylopyranosyl-(1-3)- $\beta$ -D-glucuronopyranoside-6-O-butyl ester].

The molecular formula of compounds **1** and **2** were C<sub>22</sub>H<sub>34</sub>O<sub>8</sub> by high resolution FABMS, and from an analysis of its <sup>13</sup>C-NMR and DEPT data. On the basis of <sup>1</sup>H-, <sup>13</sup>C-NMR, HMQC, HMBC and <sup>1</sup>H,<sup>1</sup>H-ROESY spectral data, their structures were established as (1S, 3R, 5R, 7aR)-3,5-dimethoxy-7-hydroxymethyl-1-(3-methylbutanoyloxy)-4-(3-methylbutanoyloxymethyl)-1,3,5,7a-tetrahydrocyclopent-4,6-diene[*e*]pyran and (1S, 3S, 5R, 7aR)-3,5-dimethoxy-7-hydroxymethyl-1-(3-methylbutanoyloxy)-4-(3-methylbutanoyloxymethyl)-1,3,5,7a-tetrahydrocyclopent-4,6-diene[*e*]pyran, which were named patridoid 1 and patridoid 2, respectively.

**References:** 1. Lee, Y.N. (1996) *Flora of Korea*, Kyo-Hak Publishing Co., Ltd. 2. Inada, A. et al. (1993) *Shoyakugaku Zasshi* 47: 301-304.