

fraction by consecutive purification using silica gel, Sephadex LH-20 chromatography and recrystallization.

The chemical structures of these compounds were identified as 1,8-dihydroxy-3-methoxy-6-methyl-9,10-anthraquinone(emodin 3-methyl ether), 1,3,8-trihydroxy-6-methyl-9,10-anthraquinone(emodin), 1,3,8-trihydroxy-6-hydroxymethyl-9,10-anthraquinone( $\omega$ -hydroxyemodin), and 3,5,4'-trihydroxystilbene (*trans*-resveratrol) by spectral data including GC-MS,  $^1\text{H}$ - and  $^{13}\text{C}$ -NMR. The  $\text{IC}_{50}$  values of emodin, emodin 3-methyl ether,  $\omega$ -hydroxyemodin, and *trans*-resveratrol were 74.07, 2.81, 10.49, and 8.77 $\mu\text{M}$ , respectively.

These compounds are expected to be useful for preventing and curing of Influenza disease.

[PD2-22] [ 10/19/2001 (Fri) 14:00 - 17:00 / Hall D ]

### Four new sphingolipids from *Bombycis corpus* 101A and their neurotrophic effects

Kwon HakCheol<sup>0</sup>, Jung I-Yeon, Cho SeaYun, Kim SunYeou, Lee KangRo

Natural Products Laboratory, College of Pharmacy, SungKyunkwan University, Department of Sericulture & Entomology, National Institute Agricultural Science and Technology, RDA, and Graduate School of East-West Medical Science, KyungHee University

*Bombycis corpus* is a silkworm larvae killed by inoculation of the fungi, *Beauveria bassiana* and a Korean traditional medicine to treat palsy, headache, convulsion, stroke induced speech problem and tremor.<sup>1)</sup> *Bombycis corpus* 101A was developed at National Institute of Agricultural Science and Technology in Korea and inoculated by homogeneous fungi, *Beauveria bassiana* 101A. Several sterols were reported from *Bombycis corpus*.<sup>2)</sup> In the course of searching for bioactive compounds from Korean traditional medicine, we have isolated two cytotoxic sterols and two cyclodepsipeptides from a methanolic extract of *Bombycis corpus* 101A<sup>3,4)</sup>. In continuation of our research of this source, four new sphingolipids (1 ~ 4) were isolated from the hexane soluble fraction. On the basis of spectroscopic data, their structures have been elucidated as (4*E*, 2*S*, 3*A*)-2-*N*-octadecanoyl-4-tetradecasphingenine (1), (4*E*, 6*E*, 2*S*, 3*A*)-2-*N*-eicosanoyl-4,6-tetradecasphingadienine (2), (4*E*, 2*S*, 3*A*)-2-*N*-eicosanoyl-4-tetradecasphingenine (3), (4*E*, 6*E*, 2*S*, 3*A*)-2-*N*-docosanoyl-4,6-tetradecasphingadienine (4). Neurotrophic effects of isolated sphingolipids were evaluated by microscopically monitoring their potency to induce neurite outgrowth in PC12 cells and showed processes with lengths equivalent to two diameters of the cell body in 10mM.

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### New Hydroperoxides from *Aster oharai*

Choi SangZin<sup>0</sup>, Kwon HakCheol, Min YongDeuk, Lee SungOck, Lee WonBin, Yang MinCheol, Chung AeKyung, Lee KangRo

Natural Products Laboratory, College of Pharmacy, SungKyunkwan University, Suwon 440-746, Korea

*Aster oharai* Nakai (Compositae), a perennial herb, is distributed mainly in the eastern part of South