

## 1-10. Phospholipids from *Bombycis corpus* and their neurotrophic effects

I-Yeon Jung<sup>1</sup>, Hak-Cheol Kwon<sup>2</sup>, Sung-Hee Nam,  
Seung-Jong Chang<sup>1</sup>, Sae-Yeon Cho<sup>1</sup>, in-Young Hur<sup>3</sup>,  
Sun-Yeou Kim<sup>3</sup> and Kang-Ro Lee<sup>2</sup>

<sup>1</sup>*Department of Sericulture and Entomology, National Institute  
Agricultural Science and Technology, RDA*

<sup>2</sup>*Natural Products laboratory, College of Pharmacy, SungKyunKwan  
University*

<sup>3</sup>*Korea and Graduate School of East-West Medical Science, Kyung  
Hee University*

Three phospholipids (4-6) and three aromatic amines (1-3) were obtained from the methanol extract of *Bombycis corpus*. Based on spectral data, their structures have been elucidated as nicotiamide(1), cytidine(2), adenine(3), 1-*O*-(9*Z*-octadecenoyl)-2-*O*-(8*Z*,11*Z*-octadecadienoyl)-*sn*-glycero-3-phosphorylcholine(4), 1,2-di-*O*-hexadecanoyl-*sn*-glycero-3-phosphorylcholine(5) and 1,2-di-*O*-9*Z*-octadecenoyl-*sn*-glycero-3-phosphorylcholine(6). We examined the effects of compounds on synthesis of NGF in cultured astrocytes. By RT-PCR analysis, expression of NGF mRNA in astrocytes cultured in serum-starvation increased after the addition of phospholipid (10 M). The NGF content in the culture medium was significantly increased by compound 5, compared with the control value. These results suggest that compound 5 may exert neuroprotective effects by stimulation of NGF synthesis in astrocytes.