

Chemical constituents from termite-associated *Xylaria*
acuminatilongissima YMJ623

Ting-Yu Cho (卓霆宇)¹, Guei-Jane Wang (汪貴珍)², Yu-Ming Ju (朱宇敏)³,
Mei-Chuan Chen (陳美全)^{1,4,*}, Tzong-Huei Lee (李宗徽)^{5,*}

¹Graduate Institute of Pharmacognocny, Taipei Medical University

²Graduate Institute of Clinical Medical Science, China
Medical University

³Institute of Plant and Microbial Biology, Academia Sinica

⁴The Ph.D. Program for the Clinical Drug Discovery from
Botanical Herbs, Taipei Medical University

⁵Institute of Fisheries Science, National Taiwan University

Three previously unreported benzofurans, namely acumifurans A-C (**1–3**), along with five known compounds, 2-(isopropyl-I'-ol)-2,3-dihydrobenzofuran-5-carbinol (**4**), fomannoxin alcohol (**5**), fomannoxin (**6**), acremine S (**7**) and *cyclo*(L-Pro-L-Leu) (**8**), were isolated from the ethyl acetate extracts of the fermented broths of termite associated *Xylaria acuminatilongissima* YMJ623. Compound **4**, a synthetic benzofuran analogue, was isolated for the first time from natural resources. The structures of **1–8** were determined through spectroscopic data analysis. The absolute configurations of **1–4** were established based mainly on ROESY experiment and Mosher's reaction, and compared with the optical rotation data of the literatures. The effects of these compounds on the inhibition of NO production in lipopolysaccharide (LPS)-activated murine macrophage RAW264.7 cells were also evaluated. Of the compounds tested, **6** showed a mild NO production inhibitory activity without any cytotoxicity, and its average maximum inhibition (E_{\max}) at 100 μ M was 42.98 \pm 0.87%.