Isolation of Bioactive Compounds from *Aspergillus terreus*

Muhammad I. Choudhary, Syed G. Musharraf, Talat Mukhmoor, Farzana Shaheen, Shamsher Ali, and Atta-ur-Rahman

H. E. J. Research Institute of Chemistry, International Center for Chemical Sciences, University of Karachi, Karachi-75270, Pakistan

Reprint requests to Prof. Dr. M. I. Choudhary. Fax: (92-21) 9243190-9243191. E-mail: hej@cyber.net.pk

Z. Naturforsch. **59b,** 324 – 328 (2004); received October 1, 2003

A new metabolite, 6-(4'-hydroxy-2'-methyl phenoxy)-(–)-(3*R*)-mellein (**1**) was isolated from the ethyl acetate extract of *Aspergillus terreus* culture medium along with three known isocoumarin derivatives, (–)-(3*R*)-6-methoxymellein (**2**), (–)-(3*R*)-6,7-dimethoxymellein (Kigelin) (**3**) and (3*R*, 4*R*)-6,7-dimethoxy-4-hydroxymellein (**4**). Metabolites **1** and **4** showed significant activity against human pathogenic dermatophytes, *Microsporum canis* and *Trichophyton longifusus*. Metabolite **1** also exhibited potent antioxidant activity. The structures of metabolites were characterized on the basis of spectroscopic techniques. ^{13}C NMR data of metabolites **2 – 4** are also being reported for the first time.

Key words: Aspergillus terreus, 6-(4'-Hydroxy-2'-methyl phenoxy)-(–)-(3*R*)-mellein, Antifungal Activity, Antioxidant