

O-06: KOLOKOSIDES A-D: FOUR TRITERPENOID GLYCOSIDES FROM A HAWAIIAN WOOD-DECAY FUNGUS

Stephen T. Deyrup,¹ James B. Gloer,^{1*} and Donald T. Wicklow²

¹*Department of Chemistry, University of Iowa, Iowa City, IA, 52242;* ²*Mycotoxin Research Unit, Agricultural Research Service, National Center for Agricultural Utilization Research, USDA, Peoria, IL, 61604*

Fungicolous fungi often exhibit antifungal effects toward their hosts, and can therefore be viewed as potential sources of new antifungal metabolites. In the course of our ongoing studies of fungicolous fungi, an isolate was obtained from the surface of a mycelial growth found on a dead hardwood branch collected in Hawaii. Taxonomic evaluation of the isolate revealed that it may be a member of the genus *Xylaria*, suggesting that it is most likely a wood-decay fungus, rather than a fungicolous isolate. Even so, an extract from cultures of this isolate displayed antifungal activity. Therefore, chemical investigation of the extract was undertaken, leading to isolation of four new triterpenoid glycosides that we named kolokosides A-D, along with the known bioactive metabolite 19,20-epoxycytochalasin N. The structures of the kolokosides were determined primarily by NMR analysis. The absolute configuration of the triterpenoid portion of kolokoside A was proposed by application of the exciton chirality method using a bis-*p*-dimethylaminobenzoyl derivative. Although these compounds did not account for the antifungal activity of the crude extract, the lead compound showed antibacterial activity against *B. subtilis* and *S. aureus*.