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Physiological and Biochemical Studies of a European *Ganoderma* Species

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Whereas *Ganoderma lucidum* (Curt.: Fr.) P. Karst. and *G. applanatum* (Pers.) Pat. belong to the best investigated higher fungi worldwide, the knowledge about other *Ganoderma* species is very limited. During our investigations of some other species of the family Ganodermataceae we found that the European species *Ganoderma pfeifferi* Bres. produces structurally new substances with interesting biological activities (Mothana et al., 2000).*

G. pfeifferi is a weak parasitic basidiomycete, later a saprophyte, which is only found in Europe, preferring to live on *Fagus* and a variety of other deciduous trees such as *Aesculus, Acer, Fraxinus, Prunus,* and *Quercus*. The species is easily recognized by its cracked and wrinkled resinous layer on the pileus and by its sweet scent in winter.

Here we describe the results of some physiological and biochemical studies using mycelial cultures of *G. pfeifferi*. The growth response to several media and environmental factors, such as pH, light, UV irradiation, and temperature, was studied. It could be shown that the mycelial cultures are able to produce biologically active metabolites. The amount of produced mycelia and the biological activity were used as parameters for the optimal cultivation method.

Surprisingly, it was found that the cultures show a very high resistance to irradiation with UV light.

*Mothana, R. A. A., Jansen, R., Jülich, W.-D., and Lindequist, U. 2000. Ganomycins A and B, new antimicrobial farnesyl hydroquinones from the Basidiomycete *Ganoderma pfeifferi*. *J Nat Prod* **63**, 416–418.

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