

# Metabolites from *Microsphaeropsis olivacea*, an Endophytic Fungus of *Pilgerodendron uviferum*

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Seven compounds belonging to different structural skeletons were isolated from *Microsphaeropsis olivacea* grown in liquid and solid media. The enalin derivative 7-hydroxy-2,4-dimethyl-3(2*H*)-benzofuranone is reported for the first time, while additional spectroscopic information is provided for the acetates of botrallin and ulocladol.

The activity of the isolated compounds was assessed towards the enzyme acetylcholinesterase (AChE) and their cytotoxicity against human lung fibroblasts. Graphislactone A and botrallin presented a moderate activity towards AChE, with IC<sub>50</sub> of 8.1 and 6.1 µg/ml (27 and 19 µM, respectively). Under the same experimental conditions, the IC<sub>50</sub> of the standard inhibitor galanthamine was 3 µg/ml. The cytotoxicity of both compounds was > 1000 and 330 µM, respectively. None of the compounds was promising as antibacterial or antifungal against phytopathogenic fungi and bacteria.

Botrallin and graphislactone A were detected in the liquid potato-dextrose and yeast extract/malt extract/dextrose as well as on a solid substrate (rice). Butyrolactone I was obtained from the fungus growing on solid medium.

*Key words:* *Microsphaeropsis olivacea*, Botrallin, Graphislactone A