

PRODUCTION OF LICHEN DEPSIDES BY ENDOLICHENIC FUNGI

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Lichens are colonized by a wide diversity of microorganisms (bacteria, lichenicolous fungi endolichenic fungi). These organisms constitute together a unique ecosystem and relationships between each entity are still under investigations. Isolation of endolichenic fungi from the common oakmoss lichen, *Evernia prunastri*, led to the identification of eight fungal species. Three of these fungi (*Anthostomella pinea*, *Coniochaeta lignicola* and *Preussia persica*) have been cultured on three different culture media (PDA, MEA and Sabouraud) and ethyl acetate extracts have been obtained from these cultures. A dereplicative approach after LC-MS/MS analysis of these extracts led to the identification common lichen metabolites. These metabolites usually known as specific lichen compounds are principally depside derivatives and are mainly visualized when the fungus is cultivated on Sabouraud medium. These observation corroborate the results of the study carried out by Bertrand et al (J Nat Prod, 2018) which conclude that lichen are able to influence their endophytic fungi metabolism and *vice et versa*. Modification of culture conditions has been realized on *Coniochaeta lignicola* in order to observe any variations on the production of lichen depsides. Funding: ANR JCJC LICSYFILM