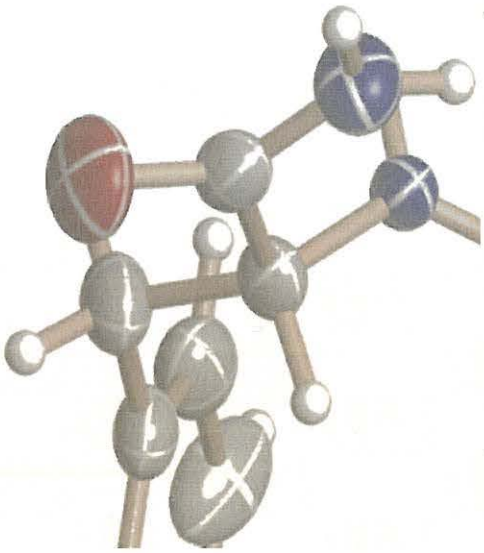

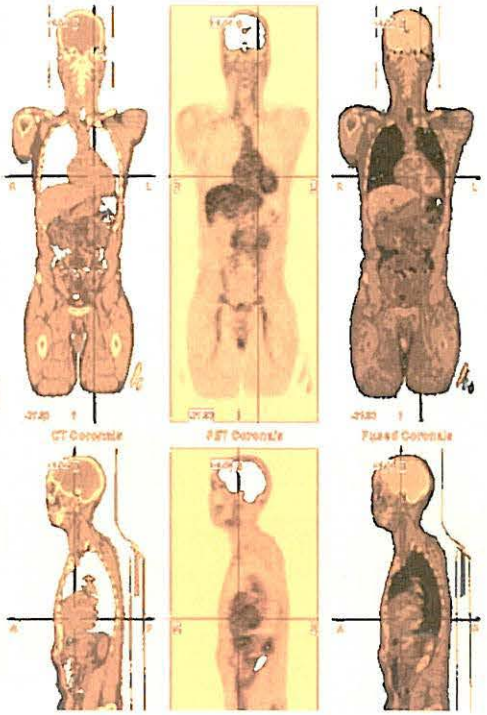

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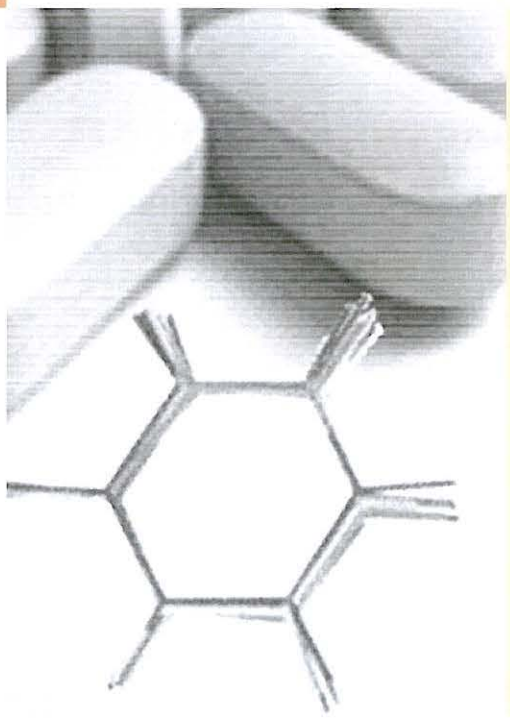

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Evaluation of human tumor cell lines growth inhibition *by Leccinum vulpinum* Watling and *Suillus granulatus* (L.) Roussel.

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Mushrooms comprise a vast and not yet totally explored source of powerful new pharmaceutical products. In particular, and most importantly for modern medicine, they represent an unlimited source of compounds which are modulators of tumour cell growth [1]. In the present work, the anti-proliferative properties of two methanolic extracts of wild mushroom species from the Northeast of Portugal (*Leccinum vulpinum* Watling and *Suillus granulatus* (L.) Roussel) were evaluated for the first time, allowing the comparison between these two species. These properties were measured by sulforhodamine B (SRB) assay according to the procedure adopted in the NCI's *in vitro* anticancer drug screening, observing their growth inhibitory activity. MCF-7 (breast carcinoma), NCI-H460 (non-small lung carcinoma), HCT-15 (colon carcinoma) and HeLa (cervical carcinoma) human cells lines were used. The concentration that inhibited growth in 50% is expressed in GI_{50}. Both species were able to inhibit the proliferation of all the tested cell lines. Nevertheless, the most susceptible cell line was HCT-15: GI_{50} values 71.31±5.26 µg/mL for *S. ganulatus*and 77.61±2.22 µg/mL for*L. vulpinum*. Up to 400 µg/mL, the samples did not show toxicity for non-tumor porcine liver primary cells. This study contributes for the valorisation of the mentioned mushroom species due to their anti-proliferative properties against human tumor cell lines.

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[1] I. C. F. R. Ferreira, J. A. Vaz, H. M. Vasconcelos and A. Martins, *Anti. Canc. Agents. Med. Chem.*, **2010**, 10, 424–436.