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P 002	334	Évaluation du statut redox et coupe histologique au niveau du tissu adipeux chez les rats traités par le mancozébe. Fatima Zohra CHIALI, Hafida MERZOUK, Sid Ahmed MERZOUK, Amel MEDJDOUB, Fatima Zohra BABA AHMED, Fatima BOUAZZA
P 003	350	Caractérisation biochimique des extraits méthanoliques de la pulpe et de l'amande de l'arganier *Argania spinosa* (L.) Skeels en Tunisie. Marwa LOUATI, Amel SALHI HANNACHI, Ghada BARAKET
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P 005	404	Silencing the gip gene of *Phytophthora cinnamomi* by iRNA and studying the subcellular localization of GIP and NPP1 proteins. Abdessalem CHAHED, Noureddine CHATTI, Rodrigo COSTA, Maria JOÃO DE SOUSA, Altino CHOUPINA
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P 008	195	Use of bioinformatics tools to Study the inhibition of 1-Aminocyclopropane-1-Carboxylate Synthase (ACO) by ethylene biosynthesis inhibitors for Prolonging Vase Life of Flowers Nada AYADI
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A prospective study on bioactive properties of wild mushrooms mycelium grown *in vitro* under different conditions

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Wild mushrooms have been extensively studied for their value as sources of high quality nutrients and of powerful physiologically bioactive compounds [1,2]. The present study was designed to evaluate the *in vitro* development of two wild edible mushroom species: *Pleurotus eryngii* (DC.) Quél. and *Suillus belinii* (Inzenga) Watling, by testing different solid (Potato Dextrose Agar medium –PDA and Melin-Norkans medium- MMN) and liquid culture media (Potato dextrose broth- PDB and Melin-Norkans medium- MMN).

Each strain of mushroom produces a special type of mycelium and this range of characteristics varies in form, color and growth rate. *S. bellinii* presents a pigmented and rhizomorphic mycelia, whereas, *P. eryngii* has depigmented and cottony mycelia. The mycelium isolated and grown in PDA showed a faster radial growth compared to the mycelium isolated and grown in both solid and liquid incomplete MMN medium. *P. eryngii* exhibited a rapid growth and a higher mycelia biomass in both medium compared to *S. belinii.*

Moreover, the obtained mycelia will be characterized in terms of well-recognized bioactive compounds namely, phenolic acids and mycosterols (mainly ergosterol), by using high performance liquid chromatography coupled to diode array and ultraviolet detectors, respectively. These compounds will be correlated to mycelia bioactivity: i) antioxidant activity, evaluated through free radicals scavenging activity, reducing power and lipid peroxidation inhibition *in vitro* assays; ii) anti-inflammatory activity, assessed through nitric oxide production inhibition in murine macrophages (RAW 264.7 cell line); iii) cytotoxic activity, evaluated either in human tumor cell lines (MCF-7- breast adenocarcinoma, NCI-H460- non-small cell lung cancer, HeLa- cervical carcinoma and HepG2- hepatocellular carcinoma) as also in a non-tumor porcine primary liver cells culture established in-house (PLP2).

Overall, our expectation is that the bioactive formulations obtained by *in vitro* culture can be applied as nutraceuticals or incorporated in functional foods.

Keywords: Wild mushrooms; *In vitro* culture; Phenolic acids; Ergosterol; Bioactive properties

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