

Within the academic cultural season of [Biology Department](#) /College of Science/Baghdad University, Dr. Esra'a Ahmed Ali ,PhD specialist in Biology Plants/Fugues from Malaya University/ Faculty of Science for Higher Studies, delivered the tilted lecture:

The Cytotoxicity of Pleurotin Extracted from Local Isolated Pleurotus Osteratus

Against Carcinoma Cell Lines

Abstract :

The study included a selected group consists of six species of the fungi related to Pleurotus genus, and they were evaluated for their ability in producing the Pleurotin, one of them is Pleurotus ostreatus (P.11) which was isolated and identified in this study. Pleurotin was tested and extracted with screening via a thin layer of Chromatography (TLC) and quantifying the High Performance of the Liquid Chromatography (HPLC).

Cytotoxicity of pleurotin was extracted and purified in two methods first: by using Ethyl Acetate, the Second: by using Chloroform , and Cytotoxicity has been tested for Pleurotin extracted from P. ostreatus (P.11) which was grown on various mediums contain sugar sources such as galactose, mannitol, sucrose, dextrose and lactose , it was tested against three kinds of cancer cell lines A549, MCF-7, CaSki. and A549.

Besides to that, the non-cancer normal lung cell Line (MRC-5). Pleurotin of *P. ostreatus* (P.11) that cultivated in galactose media produced the highest growth inhibition against all the three cancer cell lines MCF-7 CaSki, and A549 at 72 h of incubation period , with IC50 29.84 ± 2.37 , 30.25 ± 2.40 and 37.60 ± 2.65 $\mu\text{g/ml}$ respectively when the $P \leq 0.01$, while it showed no adverse effect on the non-cancer lung cell lines MRC-5 with IC50 >200 $\mu\text{g/ml}$.