

Candida and Trichophyton strains

Kouakou Abel Boris

UFR Biosciences, Université Félix Houphouët Boigny 22 BP 582 Abidjan 22, Côte d'Ivoire

Shea (*Vitellaria paradoxa*) nuts hulls, sub-products of shea butter processing, are considered as waste or just partially exploited as fertilizer or fuel. However, the present study demonstrated *in vitro*, the antifungal activity of these sub-products macerats, againsts three strains of *Candida albicans*. Therefore, "agar diffusion" method were carried out by immersing sterile microbiological discs in a 50 mg/mL suspension of shea shells macerat and lying them down on Sabouraud Agar incorporated with *Candida albicans* or *Trichophyton rubrum* (10³-3 UFC). Agar plates were stored at 30 °C for three days, and then inhibition halo were measured. The minimum inhibitory concentration (MIC) of each fungal strain and bioactive compounds in shea shells macerat, were also determined. According to results, shea shells macerats showed a significant ($p < 0.01$) inhibition power on *Trichophyton rubrum*, *Candida albicans* 18887, *Candida albicans* and *Candida albicans* 18702, with inhibition halo measuring 13.5 ± 1 ; 13 ± 1.3 ; 15 ± 0.0 and 17 ± 3.1 mm, respectively. This inhibition power began with a concentration of 3.125 mg/mL of macerat against the whole tested strains. Such ability would be linked to macerat contents in bioactive compounds such as flavonoids, tannins, saponosides, steroids and triterpens. With such ability, shea hulls would constitute a powerful organic resource which can be exploited for pharmaceutical formulations and also in cosmetics in the treatment of fungal infections (oral, sexual and skin)

Biography

KOUAKOU Abel Boris is a PhD student at Biosciences Faculty of University Félix Houphouët Boigny. He has a Master of Biotechnology-Biosafety-Bioresources at the same University. He has participated to many seminars, and more recently, he communicated at "Journée de Valorisation des Substances Naturelles d'Intérêt" (Day of Valorisation of Natural Substances of Interest) which took place at University Jean Lorougnon GUEDE in January 2021 (15th and 16th).