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## ANTIFUNGAL ACTIVITY OF BIOGENIC SILVER NANOPARTICLES AND TOXICITY ASSESSMENT USING DANIO RERIO

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*Micological silver nanoparticles (AgNP) is considered a low cost and eco-friendly method. In this context, the biological AgNP from a marine fungus Aspergillus niger IB-CLP20 was assessed to antifungal capability by minimum inhibitory concentration (MIC) tests using 6 pathogenic fungi including Aspergillus fumigatus IPT728. In addition, was evaluated their potential toxic effect in Danio rerio routine metabolism. As control synthetic AgNP and AgNO<sub>3</sub> were used. According to the preliminary results, AgNP IBCLP20 showed antifungal activity for all strains tested, where MICs ranged from 20 to 75 µg·mL<sup>-1</sup>. The metabolic tests in Danio rerio indicated a lower toxicity of the biological AgNP, obtaining values of specific consumption of O<sub>2</sub> between 2 and 2,6 mL O<sub>2</sub>/g/h. The effect of AgNP is still almost totally unexplored. The results obtained in this study indicate that biogenic AgNP can be a promising option for many industrial applications and environmental areas. However, other studies need to be carried out to improve this proposal.*