Risk Assessment of Silver Nanoparticles in Yeast Cells

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Nanoparticels are currently in use in electronics, cosmetics, and chemical manufacturing, among others industries. But they are difficult to isolate from the larger environment because of their extremely small size. Nanoparticles are small enough to penetrate cell membranes and defenses, yet they are large enough to cause trouble by interfering with normal cell processes. Silver nanoparticels are potent and broad-spectrum antimicrobial agents. In this study AgNPs powder purchased in Sigma Aldrich (catalog NO. 576832) and Using two kind of method to make a ideal dispersion of nanoparticle solution. The mode of antibacterial action against yeast(strain : *s. cerevisiae* S288C, *s. cerevisiae* 2805) was investigated by cell viability. The number of survival cells(CFU/ml) revealed that an hour exposure of yeast cells in log phase growth to determine antibacterial concentrations of silver nanoparticles. The results are that the antibacterial activity show the concentrations over 0.02ppm.