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Short Communication

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Permeation of Large Antineoplastics into Wild Strain of *Saccharomyces cerevisiae*

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SUMMARY. *Saccharomyces cerevisiae* has been used in genotoxicity and cytotoxicity assays for several years before the Ames Test approach. However the cell permeability of yeast has been considered a limitant factor to this kind of assay and many researchers have been introducing genetic modifications into wild strains to improve the sensitivity to chemical compounds. In our study, we used *Saccharomyces cerevisiae* ATCC 9763, well known and very common strain in antibiotic assays, and we evaluated the cytotoxicity of some antineoplastic agents (etoposide, epirubicin, carboplatin, cisplatin and mitoxantrone). Each culture was observed under the light of microscope and photographed. Neither genetic modification nor addition of permeation inducers, as dimethylsulfoxide (DMSO), were introduced during the assays and the cells presented good sensitivity to those compounds, demonstrating that other potential strains and characteristics of cells should be reconsidered to improve these assays apart from the cellular permeability.

KEYWORDS: Antineoplastics, Cell permeability, Cytotoxicity, Yeast.

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