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Abstract Book

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Lead toxicity in *Saccharomyces cerevisiae*

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Large amounts of heavy metals are released into environment by the technological activities of humans. The impact of these metals in aquatic systems and their accretion throughout the food chain can cause a serious threat to animals and humans.

Certain heavy metals, such as copper, nickel and zinc are essential trace elements for normal growth and metabolism of microorganisms; however, these metals become toxic when intracellular concentrations rise above physiologically required levels. Other metals, such as lead, cadmium and mercury, are non essential for biological functions, and some of them, such as cadmium and mercury, are strong inhibitors of microbial metabolism, even at low concentration. Little information is available about lead toxicity to yeast cells.

In this work, the temporal order of changes of yeast cell metabolic function and structure during the loss of cell proliferation induced by lead will be presented and discussed.

The results obtained with this work contribute for the understanding and elucidation of the mechanism of lead toxicity in *Saccharomyces cerevisiae*.