

# STUDY ROLE OF HYDROXYANTHRACEN ON CELLULAR ACTIVITY

Paolo Pelini  
Cytotoxicology Research Italy

---

## Corrispondence:

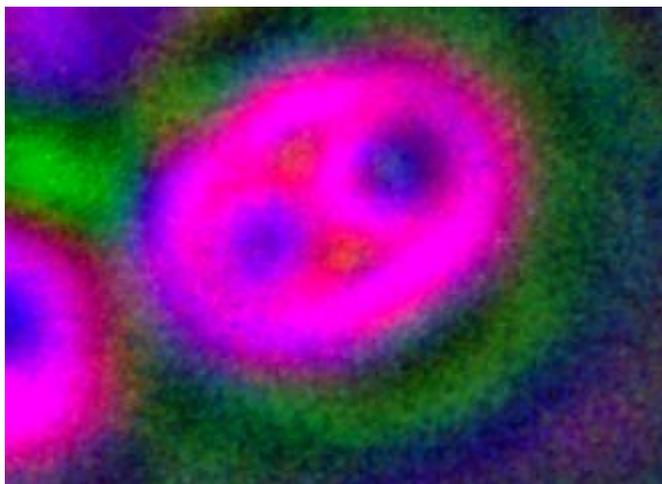
Paolo Pelini  
Cytotoxicology Research Italy  
Rome- Italy  
paolo.pelini@gmail.com  
phone: +39 3510461450

## Abstract:

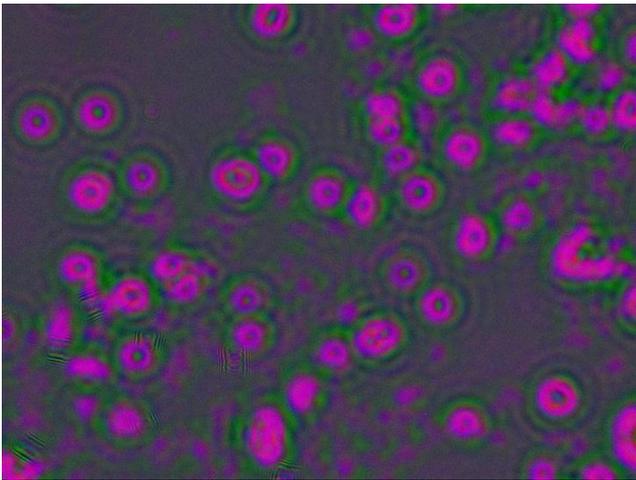
The purpose of this study was to determine the different action at cellular level in a biological model of *Saccharomyces cerevisiae* yeast of single molecules of Hydroxyanthracene and the same action elicited by using the entire Aloe extract

## STUDY DESCRIPTION:

*Aloe ferox* L. Anthraquinones were extracted from Aloin and Aloe Emodin in ethyl acetate to mutate the biological model used for *Saccaromyces Cervisiae*, in Nutrient Agar culture medium. In the medium where the cells were after 10 days where the cells had been put in contact with a mixture of only Aloin and Aloe Emodin the cells appeared of increased size and the nuclear activity was decidedly accelerated in the state of division Anaphase **Fig. 1** and **Fig1A**.

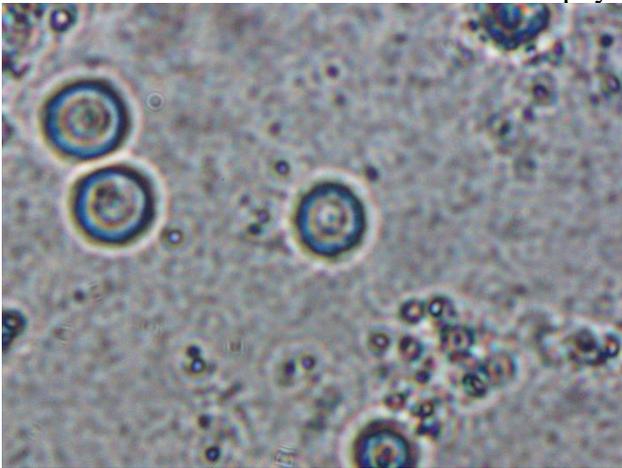


**Fig1**



**Fig 1A**

In the cells that came into contact with the phytocomplex **Fig1B**.



**Fig1B**

of the aloe plant, the cells appeared in a quiescent or inactive state with dimensions and nuclear activity comparable to the control culture. In addition, it was possible to create a Genotoxicity scale of the single molecules of Aloe and Aloe Emodin where it was seen that Aloe Emodona has a greater genotoxic action than the metabolites resulting from the action of cytochrome P450 of Emodin and Aloin The aforementioned **Genotoxicity scale** is thus represented in order of toxicity from the most potentially genotoxic molecule to the lowest **Aloe Emodin> 2 Hydroxyemodin (Emodin Metabolite)> Emodin> Hydroxyemodin (Emodin metabolite)> Aloina** s an inactive metabolite as it is transformed by cytochrome p450 into Aloe Emodin .

#### **CONCLUSION:**

All this suggests that if individual molecules may well have a role in mitotic acceleration and an influence on the nuclear activity of cells, these effects are mitigated if the entire Aloe extract and pool is considered.