

Zantac's Effect on L6 Proliferation

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Zantac is a common over the counter anti-acid that has recently been involved in numerous lawsuits due to its cancer-causing properties in gastrointestinal cells. Zantac, also known as ranitidine, contains a chemical called NDMA, a known carcinogen, that multiplies spontaneously over time in room temperature conditions. Given that the shelf-life of the drug is not typically common knowledge and the conditions in which drugs are stored are not closely monitored, the amount of the NDMA in the drug is not known upon consumption. As a result of the research demonstrating Zantac's ability to increase gastrointestinal cell proliferation, there is concern that the now recalled drug will cause increased growth rates of a variety of cells throughout the body. In this study, it is hypothesized that introducing L6 muscle cells to Zantac over a 24-hour period will significantly augment cell proliferation and growth, which could indicate a cancerous effect for muscle cells as well. To test this, cells treated with various concentrations of Zantac will be subjected to an MTT cell proliferation assay to quantify relative cell growth. The research is currently in the process of being conducted; however, if the hypothesis is supported, the research could indicate that Zantac has a cancerous effect in more than just gastrointestinal cells in the body.