

# *Lactobacillus Acidophilus* as a Preferable Natural Anticancer Agent

Abhinandan Patil<sup>1\*</sup>, John Disouza<sup>1</sup> and Shivaji Pawar<sup>1,2</sup>

<sup>1</sup>Centre for Interdisciplinary Research, D. Y. Patil University, India

<sup>2</sup>Centre for Research and Technology Development, Sinhgad Institutes, India

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## \*Corresponding author

Abhinandan Patil, Centre for Interdisciplinary Research, D. Y. Patil University, Kolhapur, (MS). India,  
Tel: +919511761008;  
Email: Abhisir5@gmail.com

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Various pharmacological rat models are used for anticancer activity estimation. The present study deals with culturing of *Lactobacillus Acidophilus* (LAB) in the pasteurized milk of cow and buffalo and estimating the anticancer activity. The lab was grown at 37°C, for 24 hours [1]. In *In-vivo* studies 4 groups of Wister rats were used; which included a) control group (normal), b) DMH (1,1-dimethyl hydrazine) group chemical cancer-inducing agent, c) DMH and LAB treated group and d) DMH and capecitabine treated (standard anticancer synthetic drug). The preliminary investigation was carried out in haematological and enzyme estimation of all groups of animals [2]. The haematological evidence proved that haemoglobin level [09.85±0.6682 g/dl] is decreased with increase in WBC [7889±144.72] count in Wister rat group (b), which further led to increases in oxidative stress resulting cancer. The haemoglobin level of group (c) [11.98±0.4278 g/dl] was quite higher than group (d) [11.83±0.4773 g/dl] as compared to standard (a) [12.16±0.3073]. WBC count of the control (a) was [5325±141.27] nearly same as in case of (c) [5516±87.242] and (d) [5216±94.57] which proved LAB shows an adverse effect on WBC count same as a standard drug used. Superoxide Dismutase (SOD) analysis proved that oxidative stress was increased in group (b) [10.01±0.45 Units/mg of protein] as compared to standard (a) [23.33±0.96 Units/mg of protein]. The group (c) shown an increase in SOD [18.27±0.57] same as to standard drug given group (d) [18.91±0.73], which proved that LAB act as good natural candidate to use as preliminary anticancer agent reducing the oxidative stress responsible for Cancer [3]. As compared to the synthetic drug capecitabine, LAB shown less severe side effects in an animal model such as hair loss, weight loss etc.

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