

# THE IMPORTANCE OF ANTHOCYANINS ON BREAST AND PROSTATE CANCER

*GÜLÜM LEVENT<sup>1</sup>*

<sup>1</sup>**Bolu Abant İzzet Baysal University, Mudurnu Süreyya Astarıcı Vocational School, Department of Plant and Animal Production**

**Abstract.** Patulin (4-hydroxy-4H-furo-3,2-C-pyran-2(6H)-one), a secondary metabolite of various mold fungi (*Aspergillus*, *Byssoschlamys*, *Eupenicillium*, *Paecilomyces* and *Penicillium*), is frequently found in fruits and vegetables, especially apples. It is a mycotoxin that can be widely seen in its derivatives. Studies of patulin in human tumor cells are limited. In a study using liver and lung cancer cell lines, it is reported that it may be a candidate molecule for promising cancer treatment. In recent studies, it has been reported that the antitumor activities of patulin in SW-48 and HeLa cell lines have been evaluated and this mycotoxin significantly inhibits cell growth in cancer cells. In a study investigating the cytotoxic effect of patulin on breast cancer cell lines, it was determined that there were first data in breast cancer, but as a result of the study, it had antitumoral effects in colon and breast cancer. According to the literature review patulin, which is a mycotoxin that can be used as an antitumor, has been found to be limited in breast cancer cell lines, and no studies have been found on prostate cancer.

As a result, it is recommended to conduct more in-vivo and in-vitro studies on patulin, which is thought to be a potent anticancer and causes inhibition of cancerous cells.

**Keywords:** Antitumor, Breast Cancer, Mycotoxin Prostate Cancer, Patulin

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