Poster Presentation

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Curcumin induced inhibition of vegf receptor to treat breast cancer

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The cancer being the leading cause of death worldwide, breast cancer is more common among all cancer and effects around 25% of women in world. The curcumin (1,7-bis(4-hydroxy-3-methoxyphenyl)-1,6-heptadiene-3,5-dione) which is extracted from the plant Cur¬cuma longa, exerts antiproliferative and apoptotic effects. Curcumin possess high pleiotropic molecular property that interacts with its numerous molecular targets. Curcumin cause G2/M arrest and apoptosis, which is further inhibits cell proliferation by in¬hibiting the assembly dynamics of microtubules, and activate the mitotic checkpoint in MCF-7 cells. Curcumin suppresses the expression of zeste homolog 2 (EZH2) gene by stimulating three major members of the mitogen-activated protein kinase (MAPK) pathway. Curcumin shows inhibitory effect and suppress the expression of human epidermal growth factor 2 (HER2), vascular endothelial growth factor (VEGF), mitogen-ac¬tivated protein kinase (MAPK), nuclear factor-κB (NF-κB), and the phosphorylation of Src and stat3 through PRL-3 down-regulation, but induces the expression of p27 and poly (ADP-ribose) polymerase 1 (PARP-1) in cancer cells. In future, Curcumin may come up as a promising agent in clinical use for the sup¬pression of vascular endothelial growth fac¬tor (VEGF) in tumor cells.

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