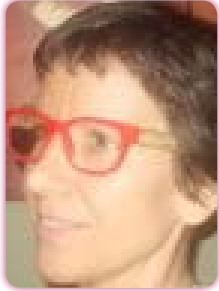


## 2<sup>nd</sup> World Congress on **Breast Cancer**

September 19-21, 2016 Phoenix, USA



### *Ellie Wright*

*Naturopathic Medical Doctors of Arizona, USA*

#### **Biochemical effects of pomegranate on cancer**

Pomegranates have been shown to contain over 100 different phytochemicals, including ellagitannins, punical acid, flavonoids, anthocyanidins, estrogenic flavonols, and flavones. The highest concentration of ellagitannins is in the freshly prepared juice. Recent research shows remarkable results in reducing atherosclerosis, obesity, insulin resistance, intestinal inflammation and cancer. Pomegranate has been shown to have breast cancer preventive effects through modulation of endogenous sex hormone levels. Ellagitannins prevents estrogen-responsive breast cancer by inhibiting the growth of cultured breast cancer cells. Ellagic acid also inhibits the enzyme known as aromatase that converts androgen to estrogen hormones. The anti-cancer effect is also expressed through inhibition of vascular endothelial growth factor (VEGF) that promotes new vasculature and tumor growth and metastasis. Pomegranate juice lowers the risk of cancer through inhibiting several of the cytochrome P450 enzymes that can activate carcinogen metabolites. Pomegranates are rich in fatty acids (80%) specifically conjugated linolenic acids (cLNA) which constitute anti-inflammatory and anti-cancer effects. Research shows pomegranate is anti-proliferative, anti-invasive, and anti-metastatic by inducing apoptosis and blocking the activation of inflammatory pathways. These mechanisms of anti-inflammatory, anti-cancer and anti-angiogenesis are expressed through inhibition of cyclooxygenase (COX), lipoxygenase (LOX), cytochrome P450 (CYP450) and last but not least the master inflammatory switch in the body NF-kB.

#### **Biography**

Ellie Wright obtained a Bachelor Degree at Arizona State University with Summa cum Laude in 1998. In 2010, she graduated with a Master's degree and a graduate certificate in Geriatric and Gerontology. In 2015, she received a Doctoral degree from Southwest College of Naturopathic Medicine.

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#### **Notes:**