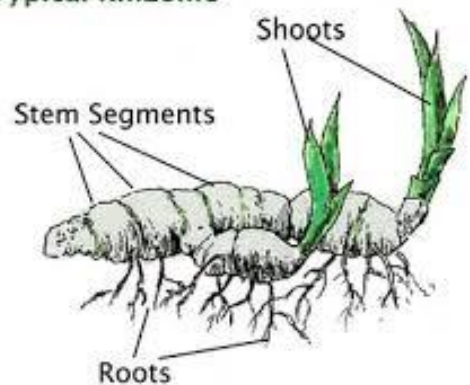


# Immunopharmacological Activity of *Zingiber officinale* on Human Peripheral Blood Mononuclear Cells

Amit Gupta\* and Sushama R Chaphalkar

Vidya Pratishthan's School of Biotechnology, Baramati, District Pune, Maharashtra India

**Corresponding author:** Dr Amit Gupta, Assistant Professor (Immunology); E-mail address:- [amitvbsbt@gmail.com](mailto:amitvbsbt@gmail.com); [amitgupta@vbsbt.res.in](mailto:amitgupta@vbsbt.res.in)



## Why medicinal plants are important?

Medicinal plants are the backbone of all life on earth and an essential resource for human being. Just think about how your everyday life depends on plants.

**ABSTRACT:** There are number of medicinal plant products which have been traditionally used in India including various other subcontinents for various kinds of ailments or diseases. Inspite of these treatments, there is an urgent need for those substances which showed anti-inflammatory as well as anti-viral activity. To achieve this objective, our group focused on the rhizome portion of *Zinger officinale* was screened for anti-inflammatory activity against specific antigen (hepatitis B vaccine, HBsAg) and also observed its antiviral activity against new castle disease virus (NDV) in human peripheral blood mononuclear cells (PBMC). The results showed that the aqueous rhizome extract of *Zinger officinale* showed remarkably decline in the number of CD14 monocyte count with exposure of HBsAg and NDV as compared to control group. In addition, this extract also showed drastically reduced in the level of antigen specific HBsAg and NDV proliferation at higher doses as compared to control. NDV and HBsAg used as standard for these studies and the results showed that there is drastically increased in CD14 monocytes count and proliferation assay as compared to control. Overall, the results showed that the aqueous rhizome extract of *Zinger officinale* showed anti-inflammatory as well as anti-viral activity.



### ANTI-INFLAMMATORY

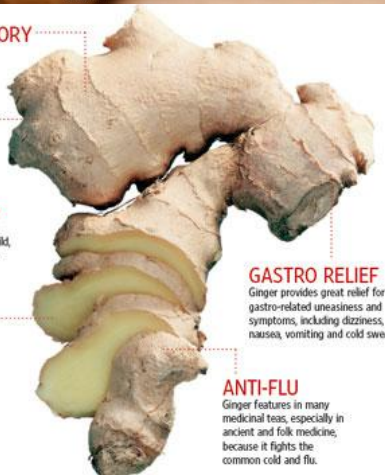
It is a useful combatant against arthritis and related problems like osteoarthritis and rheumatoid arthritis.

### FIGHTS PREGNANCY-RELATED NAUSEA

Unlike many anti-nausea drugs, which can cause defects in the child, ginger is a safe, effective drug for reducing vomiting and nausea in pregnant women.

### ANTI-CANCER

Ginger possesses gingerols, which are said to inhibit the growth of colorectal cancer cells. Gingerols have also been shown to kill ovarian cancer cells.



### GASTRO RELIEF

Ginger provides great relief for gastro-related uneasiness and symptoms, including dizziness, nausea, vomiting and cold sweat.

### ANTI-FLU

Ginger features in many medicinal teas, especially in ancient and folk medicine, because it fights the common cold and flu.