



# A POTENTIAL SUPPORTIVE TREATMENT AS A PREVENTIVE AND ADJUVANT THERAPY IN COVID-19<sup>1</sup>

## Immunomodulatory effect<sup>2</sup>

 - Up-regulates IFN- $\alpha$  production<sup>2</sup>  
- Increases antiviral activity<sup>2</sup>


 - Inhibits NF- $\kappa$ B signaling<sup>2</sup>  
- Limits cytokine storm in COVID-19<sup>2</sup>

## Reduces risk of bacterial co-infection<sup>2</sup>

 Improves muco-ciliary clearance & barrier function of the respiratory epithelium<sup>2</sup>

 Direct antibacterial effects against *S. pneumoniae*<sup>2</sup>

## Direct antiviral effect<sup>2</sup>

 Inhibits SARS-CoV RNA polymerase, thus, blocking viral RNA replication

 Decreases activity of ACE2, a receptor for SARS-CoV-2 entry into human cells

## Manages risk factors<sup>2</sup>

 Severe COVID-19 risk factors

**Ageing, Diabetes, Atherosclerosis, Obesity, Immune deficiency**

 Zinc deficiency risk factors

{ Zinc supplementation might be beneficial in managing these risk factors }



For the use of a Registered Medical Practitioner or a Hospital or a Laboratory use only.

**COVID-19:** Coronavirus disease of 2019. **IFN:** Interferon. **NF- $\kappa$ B:** Nuclear factor kappa-light-chain-enhancer of activated B cells. **SARS-CoV:** Severe acute respiratory syndrome-related coronavirus. **RNA:** Ribonucleic acid. **ACE2:** Angiotensin converting enzyme 2.

**References:** **1.** Jayawardena R, Sooriyaarachchi P, Chourdakis M, et al. Enhancing immunity in viral infections, with special emphasis on COVID-19: A review. *Diabetes Metab Syndr.* 2020;14(4):367-382. **2.** Skalny AV, Rink L, Ajsuvakova OP, et al. Zinc and respiratory tract infections: Perspectives for COVID-19 (Review). *Int J Mol Med.* 2020;46(1):17-26.

Click here to read **article on immunity enhancement by Jayawardena R.**



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