## **Health Science News Page**

Exclusive Information from the Dr. Rath Research Institute

### NATURAL APPROACH

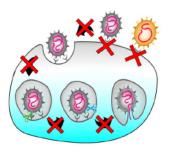
# TO COMPREHENSIVE F SARS-CoV-2

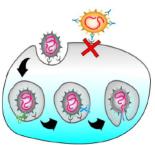
Despite availability of vaccines, more than 2000 people die every day in the US alone due to COVID-19 and approximately 133,000 new cases are reported daily. Currently, more than 182 million Americans, or 54%, are considered fully vaccinated against SARS-CoV-2, and approximately 64% of the population has received at least one vaccine dose. However, reports indicate that vaccine efficacy reduces with time and booster doses are now recommended despite a lack of unity from the FDA and CDC experts in accepting this step. Moreover, new variants of the coronavirus further complicate the picture, and "breakthrough infections" in the fully vaccinated are on the rise. This situation calls for the revision of current approaches and incorporation of innovative health strategies that are effective, economic, and accepted by the majority of people worldwide.

The scientists at the Dr. Rath Research Institute have been researching various micronutrients that can work together in a coordinated way in controlling important steps of SARS-CoV-2 infection. In their approach, they focused on key mechanisms of infection. The initial step of infection is when the virus attaches to a specific receptor on the host cell walls. This "entry door" called Angiotensin-Converting Enzyme 2 (ACE2) receptor is present on many types of cells including cells of the respiratory, cardiovascular, digestive, and excretory systems. Another receptor implicated in viral attachment is neuropilin-1 (NRP-1). The processes of viral attachment and cellular entry also require activation of other enzymes of the host cell, such as transmembrane protease serine-2 (TMPRSS2), furin, and cathepsin L. Once inside the cell, the coronavirus multiplies using another enzyme called RNA-dependent RNA polymerase (RdRp). These very enzymes are also targeted

#### **MICRONUTRIENTS: COMPLEX CONTROL**

### **VACCINES:** VARIANT SPECIFIC





by pharmaceutical research in developing drugs against COVID-19. However, many natural compounds act on the same targets that block the entry of the coronavirus and its multiplication within the cells.

A recent study published by our research team documented that the combination of plant compounds that included extracts from green tea, turmeric root, cruciferous vegetables, resveratrol and quercetin was able to simultaneously inhibit key steps involved in the viral attachment, multiplication, and spread of SARS-CoV-2.2

These findings expand our earlier results which showed that this combination of plant extracts could effectively inhibit the expression of ACE2 on lung cells by 90%.3 The recent study also showed the effect of this combination in decreasing the expression of NPR-1. The combination of plant compounds also reduced activity of TMPRSS2, cathepsin-L, and furin, thereby impairing infectivity and attachment of the coronavirus. Additionally, we also observed a statistically significant reduction in the RdRp activity which reduced the capability of the virus to multiply within the cells.

Such coordinated interference with several mechanisms of this virus infectivity is possible with natural compounds due to their unique properties. Currently, when there is no effective treatment available for COVID-19, research-backed studies of safe natural compounds with proven efficacy seem to be a prudent way to protect ourselves.

- 1. https://www.worldometers.info/coronavirus/
- 2. Goc A, et al., Eur J Bio and Biotech, 5(2), 2021.
- 3. Ivanov V, et al., J. Cell. Med. & Nat. Health, Jan 2021.

This information is provided to you by the Dr. Rath Research Institute a leader in the breakthrough of natural health research in the field of cancer, cardiovascular disease and other common diseases. The Institute is a 100% subsidiary of the non-profit Dr. Rath Foundation.

The ground-breaking nature of this research poses a threat to the multi-billion dollar pharmaceutical "business with disease". It is no surprise that over the years the drug lobby has attacked Dr. Rath and his research team in an attempt to silence this message. To no avail. During this battle, Dr. Rath has become an internationally renowned advocate for natural health. Says he: "Never in the history of medicine have researchers been so ferociously attacked for their discoveries. It reminds us that health is not given to us voluntarily, but we need to fight for it."

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