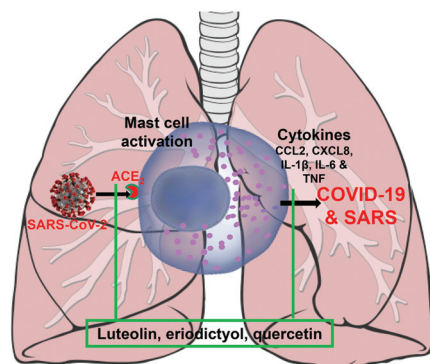


ISSUE HIGHLIGHTS

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COVID-19, pulmonary mast cells, cytokine storms, and beneficial actions of luteolin

Theoharis C. Theoharides



The recent corona virus [severe acute pulmonary syndrome (SARS-CoV-2)] infects cells, especially in the lungs, via its spike protein binding to a receptor on the surface called Angiotensin Converting Enzyme 2 (ACE₂). Pulmonary mast cells express this receptor making them prime targets, following which they release a storm of pro-inflammatory cytokines that contribute to the pathogenesis of COVID-19, especially SARS. The natural flavonoid luteolin, as well as its structural analogues eriodictyol and quercetin (Green box and lines), can block SARS-CoV-2 binding and also inhibit mast cell release of cytokines. Combination of these natural molecules, preferably in olive pomace oil to increase oral bioavailability, could be useful prophylactically against COVID-19.

REFERENCE

- [1] Theoharis C. Theoharides. COVID-19, pulmonary mast cells, cytokine storms, and beneficial actions of luteolin. *BioFactors*. 2020;46:306–308.