

## Lauryl gallate for use as SARS-CoV-2 antiviral agent

The CSIC has determined that the derivatives of gallic acid, and specifically lauryl gallate (antioxidant widely used in food industry) is an effective antiviral for infections caused by several human coronaviruses, including SARS-CoV-2.

Industrial partners from the pharmaceutical industry are being sought to collaborate through a patent licence agreement.

### An offer for Patent Licensing

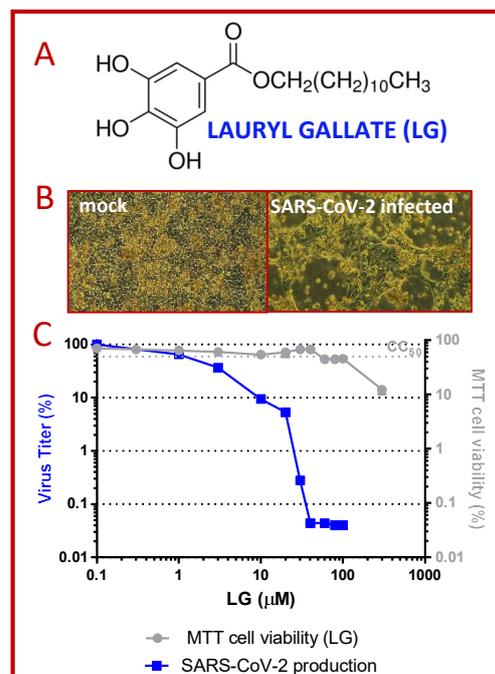
#### A food antioxidant as an antiviral against SARS-CoV-2

After nearly two years of its outbreak, the number of confirmed cases of COVID-19 pandemic continues to rise, while healthcare researchers and scientists around the world continue determinedly seeking for new ways to slow the spread of the novel coronavirus SARS-CoV-2, and to develop effective treatments and diagnosis to cope with this virus, its potential variants and possible new related viruses.

Lauryl gallate (LG), described for its antioxidant, antitumor and antiviral activities is a cell-targeted antiviral compound that has been proven to be highly efficient against coronaviruses, mainly SARS-CoV-2. Numerous advantages of LG towards other SARS-CoV-2 antivirals include its potential activity against several virus variants and related viruses, the possibility of combined administration with other antiviral drugs, the reduction of virus spread and the plausibility of becoming a complementary tool in settings where vaccination is administered.

#### Main innovations and advantages

- LG has an effective antiviral activity, in cell culture, against different human coronaviruses tested, including SARS-CoV-2, so it can be used to prevent the spread of the disease.
- No toxicity in cultured cells treated with LG doses effective for the antiviral action against SARS-CoV-2. The pharmacokinetic profile of LG is well characterised for its use as a common and inexpensive antioxidant additive in the food industry.
- Its antiviral action is directed against a cell target, which enables the inhibition of different SARS-CoV-2 variants and even of other new viruses and minimizes the selection of resistant viral strains.
- Although best results are obtained when administered before infection, high inhibition rates are also detected when the drug is added after infection.



A. Lauryl gallate formula. B. SARS-CoV-2-infected Calu3-2B4 cells. C. Effect of LG on virus production in SARS-CoV-2 infected Calu3-2B4 cells (left axis). Cell viability (right axis).

#### Patent Status

Priority patent application filed suitable for international extension

#### For more information, please contact:

Eva Gabaldón Sahuquillo

Deputy Vice-Presidency for Knowledge Transfer

Spanish National Research Council (CSIC)

Tel.: +34 91 568 15 50

E-mail: [eva.gabaldon@orgc.csic.es](mailto:eva.gabaldon@orgc.csic.es)  
[comercializacion@csic.es](mailto:comercializacion@csic.es)