

## COVID-19 Information

[Public health information \(CDC\)](#)

[Research information \(NIH\)](#)

[SARS-CoV-2 data \(NCBI\)](#)

[Prevention and treatment information \(HHS\)](#)

[Español](#)

FULL TEXT LINKS



[Br J Pharmacol.](#) 2020 Nov;177(21):4967-4970. doi: 10.1111/bph.15157. Epub 2020 Jul 16.

# The potential of cannabidiol in the COVID-19 pandemic

[Giuseppe Esposito](#)<sup>1</sup>, [Marcella Pesce](#)<sup>2</sup>, [Luisa Seguella](#)<sup>1</sup>, [Walter Sanseverino](#)<sup>3</sup>, [Jie Lu](#)<sup>4</sup>, [Chiara Corpetti](#)<sup>1</sup>, [Giovanni Sarnelli](#)<sup>2</sup>

Affiliations

PMID: 32519753 PMID: [PMC7300643](#) DOI: [10.1111/bph.15157](#)

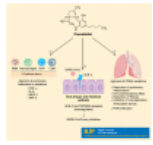
[Free PMC article](#)

## Abstract

Identifying drugs effective in the new coronavirus disease 2019 (COVID-19) is crucial, pending a vaccine against SARS-CoV2. We suggest the hypothesis that cannabidiol (CBD), a non-psychoactive phytocannabinoid, has the potential to limit the severity and progression of the disease for several reasons:- (a) High-cannabidiol Cannabis sativa extracts are able to down-regulate the expression of the two key receptors for SARS-CoV2 in several models of human epithelia, (b) cannabidiol exerts a wide range of immunomodulatory and anti-inflammatory effects and it can mitigate the uncontrolled cytokine production responsible for acute lung injury, (c) being a PPAR $\gamma$  agonist, it can display a direct antiviral activity and (d) PPAR $\gamma$  agonists are regulators of fibroblast/myofibroblast activation and can inhibit the development of pulmonary fibrosis, thus ameliorating lung function in recovered patients. We hope our hypothesis, corroborated by preclinical evidence, will inspire further targeted studies to test cannabidiol as a support drug against the COVID-19 pandemic. LINKED ARTICLES: This article is part of a themed issue on The Pharmacology of COVID-19. To view the other articles in this section visit <http://onlinelibrary.wiley.com/doi/10.1111/bph.v177.21/issuetoc>.

© 2020 The British Pharmacological Society.

## Figures



**FIGURE 1** The potential of cannabidiol (CBD)...

## Supplementary concepts

[COVID-19 drug treatment](#)

## Related information

[MedGen](#)

[PubChem Compound \(MeSH Keyword\)](#)

## LinkOut - more resources

### Full Text Sources

[Europe PubMed Central](#)

[Ovid Technologies, Inc.](#)

[PubMed Central](#)

[Wiley](#)

### Miscellaneous

[NCI CPTAC Assay Portal](#)