

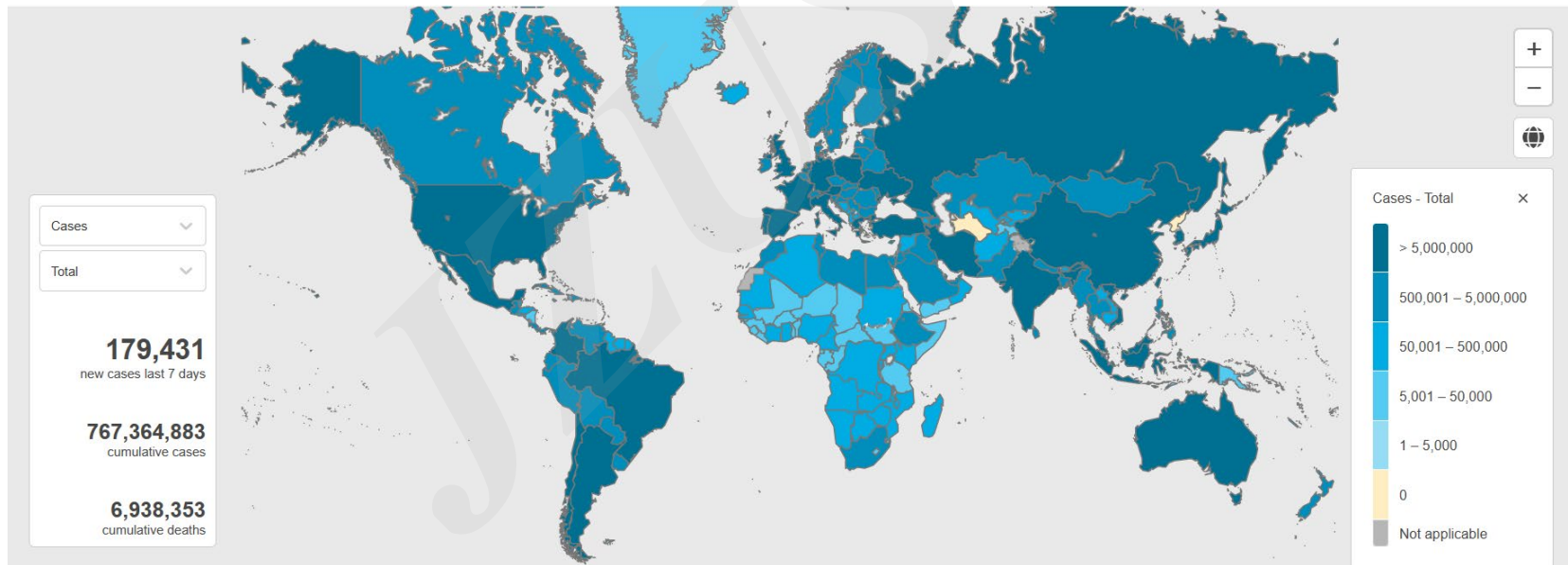
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Fucoidan sulfate from *Sargassum fusiforme* regulates the SARS-CoV-2 receptor AXL expression in human embryonic lung diploid fibroblast cells

Key words: SARS-CoV-2, Fucoidan sulfate, AXL, ACE2, Age

Research Summary

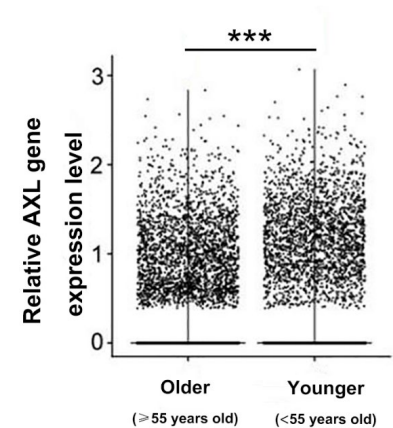
In this study, an elevated protein expression level of the AXL, a potential receptor for SARS-CoV-2, was proved in young 2BS cells, which indicated that it could be served as a potential model for artificial COVID-19 infection in vitro. A purified component of *S. fusiforme* fucoidan sulfate, SFW-3, was observed to inhibit AXL protein and mRNA expression in young 2BS cells.



Globally, as of 6:07pm CEST, 31 May 2023, there have been 767,364,883 confirmed cases of COVID-19, including 6,938,353 deaths, reported to WHO. As of 29 May 2023, a total of 13,375,580,553 vaccine doses

Innovation points

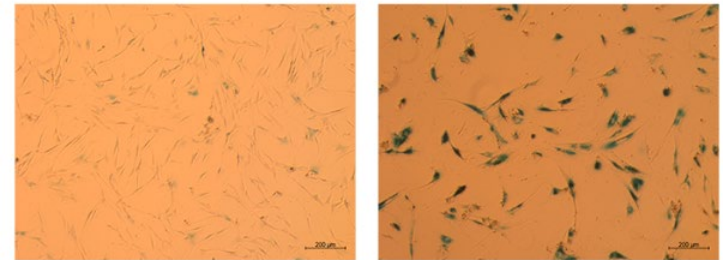
- AXL (a potential receptor for SARS-CoV-2) mRNA expression level is higher in younger people. Younger people may be more susceptible to COVID-19.



- A purified component of *S. fusiforme* fucoidan sulfate, SFW-3, was observed to inhibit AXL protein and mRNA expression.

Picture Source: <https://image.baidu.com/>

- 2BS senescence model could be served as a potential model for artificial COVID-19 infection in vitro.



Young

Senescence

Innovation points

- **SFW-3 may inhibit AXL-mediated SARS-CoV-2 infection by down-regulating AXL expression.**

