

## Supplementary Materials

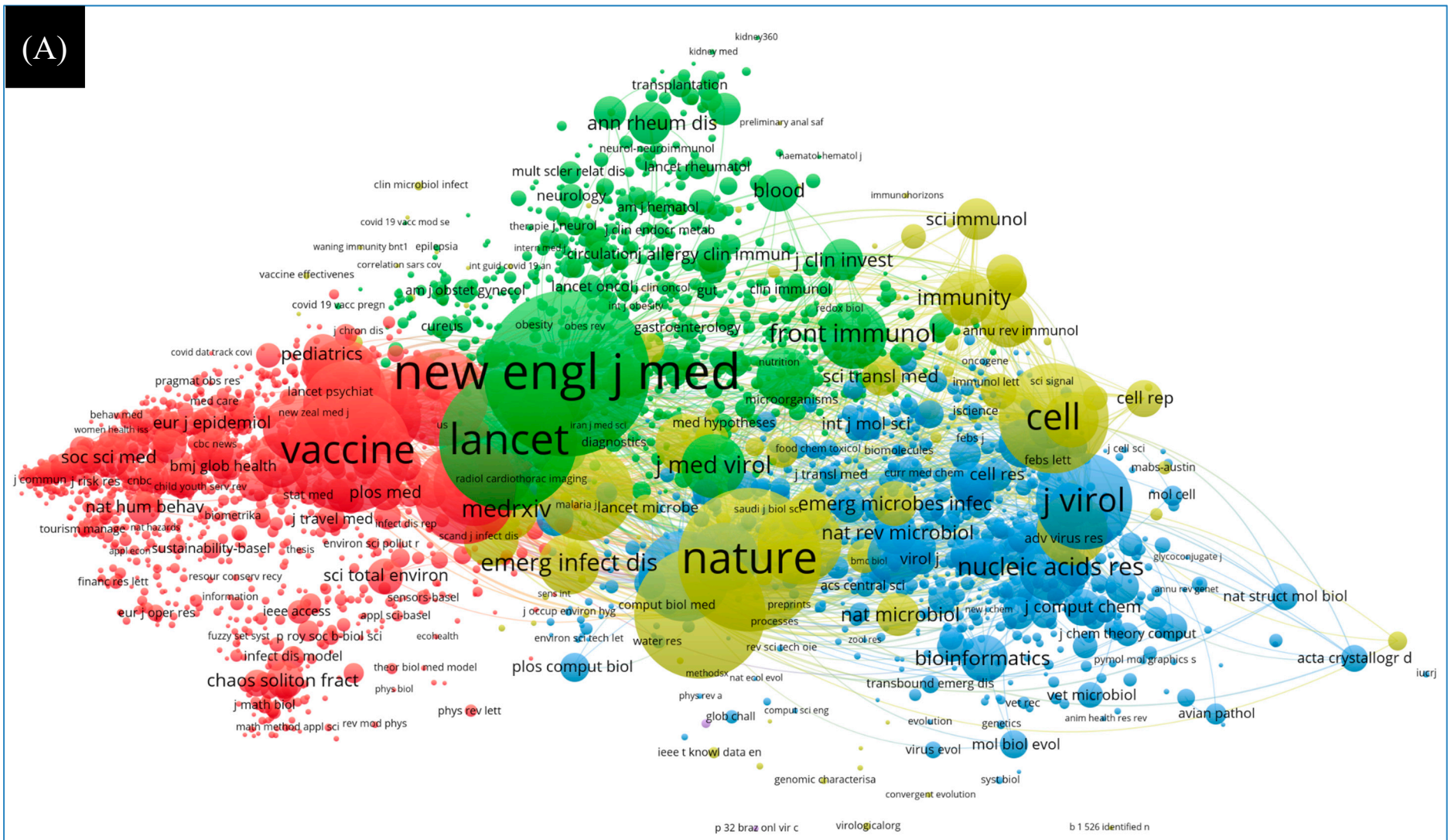
<b>Appendix S1</b>	Table S1: WHO approved 11 COVID-19 vaccines for the emergency use listing (EUL)
<b>Appendix S2</b>	Table S2: Data from WOS core collection database download published in 2019_87  Articles n=87
<b>Appendix S3</b>	Table S3: Data from WOS core collection database download published in 2020_2400  Articles n=2400
<b>Appendix S4</b>	Table S4: Data from WOS core collection database download published in 2021_10290  Articles n=10290
<b>Appendix S5</b>	Table S5: Data from WOS core collection database download published in 2022_5508  Articles n=5508
<b>Appendix S6</b>	Table S6: Summary from web of science core collection database.
<b>Appendix S7</b>	Table S7: Publications on 11 WHO-approved COVID-19 vaccines for the emergency use listing
<b>Appendix S8</b>	Figure S1: The top-20 active journals and co-citation cited sources visualization map with in COVID-19 vaccine research by VOSviewer analysis
<b>Appendix S9</b>	Table S8: The retracted articles (n =10)

Figure S1. The top-20 active journals and co-citation cited sources visualization map with in COVID-19 vaccine research by VOSviewer analysis.

- (A) The enlarged map of Network visualization map of top cited sources (co-citations more than twenty-two)
- (B) The density view of the journal map of top cited sources
- (C) The enlarged map of top-20 highest TLS journals

The size of the nodes represented the citations frequency of journals, and journals with the same color in the view belong to the same clusters in cooperation network.

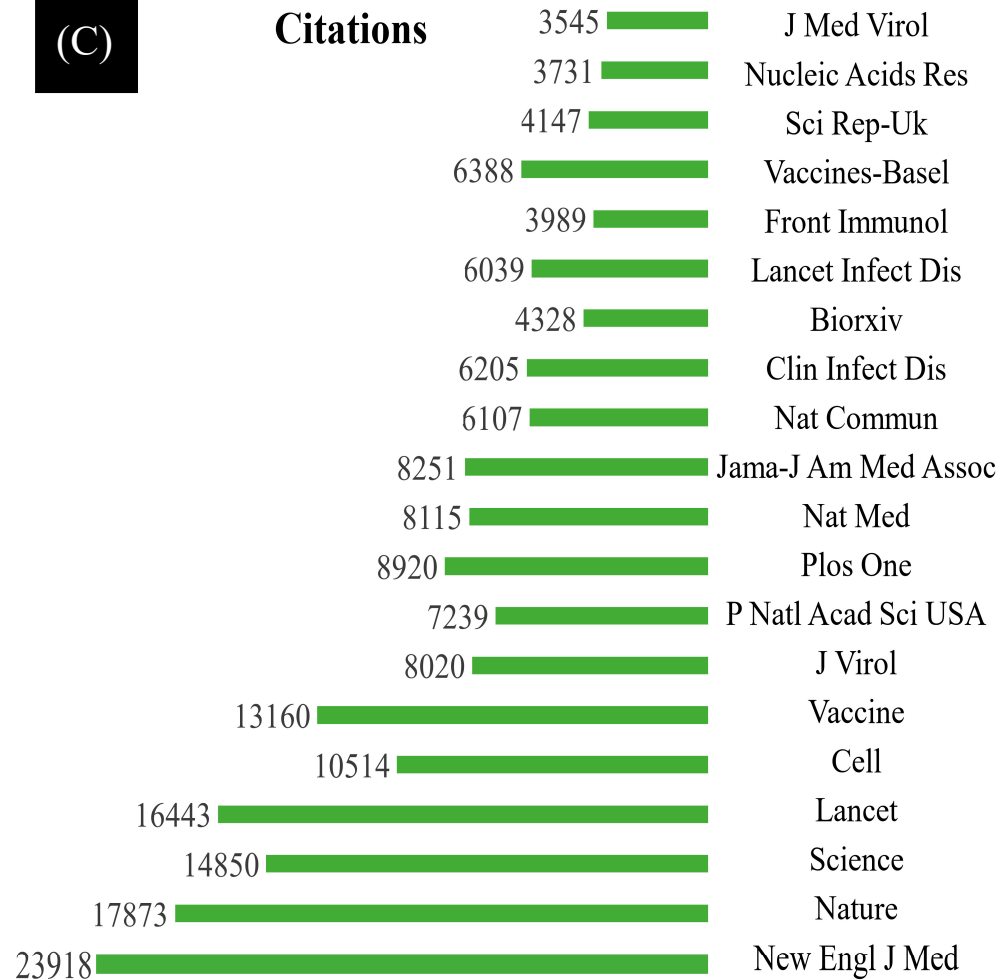
(A)





(C)

## Citations



## Total Link Strength

