EVBC Newsletter

Special Issue • SARS-CoV-2 • January 2022

European VIRUS BIOINFORMATICS Center

Send us your news to evbc@uni-jena.de.
For more frequent updates, please follow us on Twitter EVirusBioinfC.

Selected Publications on SARS-CoV-2 by EVBC Members

SARS-CoV-2 triggers profibrotic macrophage responses and pronounced fibroproliferative acute respiratory distress syndrome. (Cell: 10.1016/j.cell.2021.11.033)

Antibody responses against spike protein were high in children (3-11 years) and seroconversion boosted responses against seasonal Beta-coronaviruses through cross-recognition of the S2 domain. (Nat Immunol: 10.1038/s41590-021-01089-8)

Up to 90 % reduction of virus proliferation by specific antisense-circRNAs. (Nucleic Acids Res: 10.1093/nar/gkab1096)

Live attenuated virus vaccine protects against variants of concern Alpha and Beta. (Sci Adv: 10.1126/sciadv.abk0172)

Phosphatidic acid identified as host cell lipid involved in proper replication organelle formation by HCV and SARS-CoV-2, two phylogenetically disparate viruses causing very different diseases. (Nat Commun: 10.1038/s41467-021-27511-1)

N7-MTase is a critical enzyme for betacoronavirus replication and can be targeted to design inhibitors with a potential pan-coronaviral activity spectrum. (PNAS: 10.1073/pnas.2108709118)

Zoonotic spillover of SARS-CoV-2 can occur from mink to human. (Clin Microbiol Infect: 10.1016/j.cmi.2021.12.001)

Booster vaccines based on updated variants are likely to be required over time to prevent productive infection. (PLoS Pathog: 10.1371/journal.ppat.1010022)

Reviews / Commentaries

Role of common neutralization assays in testing neutralizing responses against new SARS-CoV-2 variants. (NPJ Vaccines: 10.1038/s41541-021-00404-6)

Preprints

Analytical sensitivity testing in seven Ag-RDTs revealed lower sensitivity for Omicron compared to pre-VOC SARS-CoV-2 and the other VOCs across tests. (medRxiv: 10.1101/2021.12.18.21268018)

No neutralization efficiency against Omicron with more than 5 months following the second BNT162b2 dose and 100-fold increase following a third dose. (medRxiv: 10.1101/2021.12.13.21267670)

The hyper-transmissible SARS-CoV-2 Omicron variant exhibits significant antigenic change, vaccine escape and a switch in cell entry mechanism. (medRxiv: 10.1101/2022.01.03.21268111)

Omicron escapes most therapeutic monoclonal antibodies and to a large extent vaccine-elicited antibodies. (bioRxiv: 10.1101/2021.12.14.472630)

Furin cleavage likely emerged from the SARS−related coronavirus bat reservoir via molecular mechanisms conserved across reservoir-bound RNA viruses, supporting a natural origin of SARS-CoV-2. (bioRxiv: 10.1101/2021.12.15.472779)

Omicron variant displays a reduced capability of antagonising the host cell interferon response. (bioRxiv: 10.1101/2022.01.03.474773)

Fatal cases of COVID-19 in vaccinees were rare and often associated with severe comorbidities or other immunosuppressive conditions. (medRiv: 10.1101/2021.12.03.21267155)

RT-qPCR assays that enable rapid identification of the newly emerging SARS-COV-2 Omicron (B.1.1.529) variant of concern. (medRxiv: 10.1101/2021.12.07.21267293)

EVBC publications on SARS-CoV-2 on Pubmed

FRIEDRICH-SCHILLER-UNIVERSITÄT JENA

evbc@uni-jena.de
+49-3641-9-46482
http://evbc.uni-jena.de/
Leutragraben 1, 07743 Jena