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### Selected Publications on SARS-CoV-2 by EVBC Members

Virus-induced senescence as a pathogenic trigger of COVID-19-related cytokine escalation and organ damage suggests that targeted senolysis of virus-infected cells is a novel treatment option against SARS-CoV-2 and possibly other viral infections. (*Nature* [10.1038/s41586-021-03995-1](https://doi.org/10.1038/s41586-021-03995-1))

EVA, a reinforcement learning system based on real-time data for safeguarding public health by efficient and targeted COVID-19 border testing. (Now published in *Nature* [10.1038/s41586-021-04014-z](https://doi.org/10.1038/s41586-021-04014-z))

Cross-reactive immunity by human endemic coronavirus may be responsible for the unexpectedly rapid immunity after SARS-CoV-2 immunization and the high rate of mild disease progression. (*Science* [10.1126/science.abh1823](https://doi.org/10.1126/science.abh1823))

Evidence for recombination in SARS-CoV-2: Eight clear recombination events identified in viruses sampled from late 2020 and early 2021 in the United Kingdom, four of which lead to onward transmission. (Now published in *Cell* [10.1016/j.cell.2021.08.014](https://doi.org/10.1016/j.cell.2021.08.014))

Dynamic production of interferons in SARS-CoV-2 infected patients. Interferons play opposing roles at different anatomical sites of the respiratory tract. (Now published in *Cell* [10.1016/j.cell.2021.08.016](https://doi.org/10.1016/j.cell.2021.08.016))

The emergence of the SARS-CoV-2 N501Y lineages coincided with a major global shift in the selective forces acting on various SARS-CoV-2 genes. (*Cell* [10.1016/j.cell.2021.09.003](https://doi.org/10.1016/j.cell.2021.09.003))

ER stress inducer thapsigargin hits several central mechanisms required for coronaviruses replication, suggesting that this compound (or derivatives thereof) may be developed into broad-spectrum anti-CoV drugs. (*Nat Commun* [10.1038/s41467-021-25551-1](https://doi.org/10.1038/s41467-021-25551-1))

Despite the accumulation of spike mutations, the highly potent monoclonal antibodies MD65- and BL6 retain their ability to bind predominant viral mutants and effectively protect against B.1.1.7 and B.1.351. (*Cell Rep* [10.1016/j.celrep.2021.109679](https://doi.org/10.1016/j.celrep.2021.109679))

COVID-eVax: a novel COVID-19 vaccine candidate based on the electroporation of engineered, synthetic cDNA encoding a viral antigen in the skeletal muscle. (*Mol Ther* [10.1016/j.ymthe.2021.09.011](https://doi.org/10.1016/j.ymthe.2021.09.011))

The current SARS-CoV-2 variants of concern have sampled only a fraction of the possible spike domain changes which have occurred historically in Sarbecovirus evolution, rising the potential for further change in virus replication and transmission properties over the coming years. (Now published in *Virus Evol* [10.1093/ve/veab067](https://doi.org/10.1093/ve/veab067))

Benine-derived SARS-CoV-2 strains were neutralized more effectively by antibodies from vaccinated individuals than from patients, warranting accelerated vaccination in Africa. (*Emerg Infect Dis* [10.3201/eid2711.211353](https://doi.org/10.3201/eid2711.211353))

Outbreaks of SARS-CoV-2 in naturally infected mink farms: The minimum percentage of mink that must be vaccinated to prevent outbreaks on farms was calculated to be 65.5%. (*Plos Pathog* [10.1371/journal.ppat.1009883](https://doi.org/10.1371/journal.ppat.1009883))

No evidence to date of widespread transmission of Remdesivir-resistant mutants, but an excess of substitutions in Spike at corresponding sites identified in emerging SARS-CoV-2 variants. (Now published in *PLoS Pathog* [10.1371/journal.ppat.1009929](https://doi.org/10.1371/journal.ppat.1009929))

#### Reviews / Commentaries


An appeal for an objective, open, and transparent scientific debate about the origin of SARS-CoV-2. (*Lancet* [10.1016/S0140-6736\(21\)02019-5](https://doi.org/10.1016/S0140-6736(21)02019-5))

Overview of key viral mutations and variants and outlook for the next phase of pandemic surveillance, which will require a systematic approach to link global genomic surveillance and timely assessment of phenotypic characteristics of novel variants to support the development and update of diagnostics, vaccines, therapeutics, and non-pharmaceutical interventions. (*Nat Med* [10.1038/s41591-021-01472-w](https://doi.org/10.1038/s41591-021-01472-w))

The origins of SARS-CoV-2: The large body of scientific evidence supports a zoonotic origin of the virus. (*Cell* [10.1016/j.cell.2021.08.017](https://doi.org/10.1016/j.cell.2021.08.017))

 [EVBC publications on SARS-CoV-2](#)

### Events

EVBC does not endorse any of the listings. EVBC members are involved in events marked .

**8th European Seminars in Virology: Innate and Adaptive Immunity to SARS-CoV2 and other viruses**  
15 – 17 Oct 2021 | Bertinoro, Italy

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### Tools and Resources

**EVA:** a reinforcement learning system for targeted COVID-19 border testing.

 [Coronavirus tools website](#)

### EVBC Special Issues

**Virology Applications to COVID-19 Pandemic in Life**  
Guest edited by EVBC members E. G. Kostaki and D. Paraskevis.

Deadline: **21 February 2022**

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