The 28-day mortality rate ratio was similar in all prespecified subgroups of patients, including in those patients without detectable SARS-CoV-2 antibodies at randomisation.

Allocation to convalescent plasma had no significant effect on the proportion of patients discharged from hospital within 28 days (3832 [66%] patients in the convalescent plasma group vs 3822 [66%] patients in the usual care group; rate ratio 0.99, 95% CI 0.94–1.03; p=0.57). Among those not on invasive mechanical ventilation at randomisation, there was no significant difference in the proportion of patients meeting the composite endpoint of progression to invasive mechanical ventilation or death (1568 [29%] of 5493 patients in the convalescent plasma group vs 1568 [29%] of 5448 patients in the usual care group; rate ratio 0.99, 95% CI 0.93–1.05; p=0.79). Article here
COVID vaccines can block variant hitting Asia, lab study finds
Gold-standard experiments on two COVID-19 vaccines suggest that they confer immunity against a subtype of the SARS-CoV-2 variant tearing through India. But the research also hints that this subtype is more resistant to antibodies than are other forms of the virus.

“These vaccines are working,” says Mehul Suthar, an immunologist at Emory University in Atlanta, Georgia, who led the research. Still, the results underscore the need to continue monitoring vaccine response to SARS-CoV-2 mutations, which often affect the all-important spike protein that the virus uses to infect cells. “Because of the spectrum of mutations that have accumulated within the spike protein, the antibodies just don’t work as well,” says Suthar.

First detected in India last October, the variant B.1.617 was this year linked to a rapid rise in cases in a handful of Indian states and has now been found in more than 40 countries. The subtypes B.1.617.1 and B.1.617.2 have both been detected with increasing frequency in India in the past few months; both carry two mutations linked to increased transmissibility. More here

Fast SARS-CoV-2 virus detection using disposable cartridge strips and a semiconductor-based biosensor platform
An important step in the biofunctionalization, namely, the formation of Au-plated clusters on the sensor strips, was verified by scanning electron microscopy, as well as electrical measurements, to confirm successful binding of thiol groups on this Au surface. The functionalized sensor was externally connected to the gate electrode of the MOSFET, and synchronous pulses were applied to both the sensing strip and the drain contact of the MOSFET.

Article here.

SARS-CoV-2 infects human pancreatic β-cells and elicits β-cell impairment
We found that the SARS-CoV-2 receptor, ACE2 and related entry factors (TMPRSS2, NRP1, TRFC) are expressed in β-cells, with selectively high expression of NRP1. We discovered that SARS-CoV-2 infects human pancreatic β-cells in patients who succumbed to COVID-19 and selectively infects human islet β-cells in vitro.

Article here