Autoimmunity to Annexin A2 predicts mortality among hospitalised COVID-19 patients

This study investigated the possibility that COVID-19 patients have autoimmune antibodies to Annexin A2, a protective protein expressed in the lung and other organs. Since this phospholipid-binding protein is critical for fibrinolysis, lung elasticity, cell membrane repair, and integrity of the pulmonary vasculature, antagonism of Annexin A2 may explain many of the hallmark clinical features of severe COVID-19 cases [8].

To evaluate this possibility, we analysed patient plasma on hospital day 0 or 1 among 86 patients at NYU Langone Health who were hospitalised for COVID-19 and confirmed to be positive by PCR. Anti-Annexin A2 IgG antibodies were measured by ELISA. Article here.
‘Too good to be true’: Doubts swirl around trial that saw 77% reduction in COVID-19 mortality

It would be the best news by far in COVID-19 treatment: According to a preprint published on 22 June, an experimental prostate cancer drug named proxalutamide reduced deaths in hospitalized COVID-19 patients by 77% in a clinical trial in Brazil. The preprint also claims the drug, which blocks the activity of androgens—male hormones such as testosterone—cut patients’ average hospital stay by 5 days, far more than any other treatment yet tested. Interim results of the study, announced at a press conference in March, led President Jair Bolsonaro to tout proxalutamide as a wonder cure and spurred Brazilian doctors to dose patients with similar drugs. But many scientists are wary. Alleged irregularities in the clinical trial have reportedly triggered an investigation by a national research ethics commission in Brazil. Top medical journals have rejected a paper about the study, and its main author, Flavio Cadegiani, an endocrinologist at the biotech company Applied Biology, has previously touted unproven COVID-19 medications, such as ivermectin, azithromycin, and antiworm compounds. And to many, the claims simply seem implausible.

More here

Efficacy and safety of an inactivated whole-virion SARS-CoV-2 vaccine (CoronaVac)

This was a double-blind, randomised, placebo-controlled phase 3 trial. Volunteers aged 18–59 years with no history of COVID-19 and with negative PCR and antibody test results for SARS-CoV-2 were enrolled at 24 centres in Turkey. Exclusion criteria included (but were not limited to) immunosuppressive therapy (including steroids) within the past 6 months, bleeding disorders, asplenia, and receipt of any blood products or immunoglobulins within the past 3 months. Article here.

Reduced sensitivity of SARS-CoV-2 variant Delta to antibody neutralization

The lineage includes three main subtypes (B.1.617.1, B.1.617.2 and B.1.617.3), harbouring diverse Spike mutations in the N-terminal domain (NTD) and the receptor binding domain (RBD) which may increase their immune evasion potential. B.1.617.2, also termed variant Delta, is believed to spread faster than other variants. Here, we isolated an infectious Delta strain from a traveller returning from India. We examined its sensitivity to monoclonal antibodies (mAbs) and to antibodies present in sera from COVID-19 convalescent individuals or vaccine recipients, in comparison to other viral strains. Article here.