Long COVID: to investigate immunological mechanisms and sex/gender related aspects as fundamental steps for tailored therapy

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Long COVID was detected in both adults and children and is characterised by immunological dysregulation. Autoimmune reactions in adult patients and allergic reactions in children appear to be critical factors. https://bit.ly/38RfSyT

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Around a quarter of people who have had coronavirus disease 2019 (COVID-19) experience symptoms that continue for at least 1 month, but one in ten are still unwell after 12 weeks. This very debilitating condition has been defined by patient groups as “long COVID”, elsewhere called post-COVID, whereas the patients are frequently called COVID-19 long-haulers [1]. Long COVID has a serious impact on patient ability to go back to work or school, to have a social life and may have significant economic consequences for patients, their families and for society. The condition is characterised by long-term sequelae and can involve a range of about 200 different and overlapping symptoms, such as persistent fatigue, chest and muscle pain, headache, shortness of breath, anosmia, muscle weakness, fever, cognitive dysfunction (brain fog), tachycardia, intestinal disorders and skin manifestations. It can affect anyone, but women appear to be twice as likely to develop long COVID as men, but only until around age 60 years, when the risk level becomes similar [2–4]. Long COVID has also been described in paediatric patients [5]. An Italian study reported that at least one symptom persisted 4 months after COVID-19 infection [6] whereas an Australian analysis suggested that only 8% of children had ongoing symptoms 3–6 months after mild SARS-CoV-2 infection [7]. No gender difference was observed in the prevalence of long COVID in this population [5].