The quality of having a special affinity for nervous tissue.

SARS-CoV-2, which causes the Coronavirus Disease 2019 (COVID-19) pandemic, has a brain neurotropism through binding to the Angiotensin-converting enzyme 2 receptor expressed by neurones and glial cells, including astrocytes and microglia. Systemic infection which accompanies severe cases of COVID-19 also triggers substantial increase in circulating levels of chemokines and interleukins that compromise the blood-brain barrier, enter the brain parenchyma and affect its defensive systems, astrocytes and microglia. Brain areas devoid of a blood-brain barrier such as the circumventricular organs are particularly vulnerable to circulating inflammatory mediators. The performance of astrocytes and microglia, as well as of immune cells required for brain health, is considered critical in defining the neurological damage and neurological outcome of COVID-19. In a review, they discussed the neurotropism of SARS-CoV-2, the implication of neuroinflammation, adaptive and innate immunity, autoimmunity, as well as astrocytic and microglial immune and homeostatic functions in the neurological and psychiatric aspects of COVID-19 [1)]

1)

Tremblay ME, Madore C, Bordeleau M, Tian L, Verkhratsky A. Neuropathobiology of COVID-19: The Role for Glia. Front Cell Neurosci. 2020 Nov 11;14:592214. doi: 10.3389/fncel.2020.592214. PMID: 33304243; PMCID: PMC7693550.