Capillary

The capillary bed of the brain is comprised of a dense network of intercommunicating vessels that consist of specialized endothelial cells and no smooth muscle [1)].

The total length of capillaries in the human brain is ~400 miles [2)].

It is the primary site of oxygen and nutrient exchange, which in turn is dependent on the path length and transit time of red blood cells. In the brain, all capillaries are perfused with blood at all times [3)].

1)
Rennels M, Nelson E. Capillary innervation in the mammalian central nervous system: an electron microscope demonstration (1). Am J Anat. 1975; 144: pp. 233–241.
2)
Begley DJ, and Brightman MW. Structural and functional aspects of the blood–brain barrier. Prog Drug Res. 2003;61: pp. 39–78.
3)
Zlokovic BV. The blood–brain barrier in health and chronic neurodegenerative disorders. Neuron. 2008; 57: pp. 178–201.