Cave New World
Edward Norton Lorenz popularised the metaphor of the butterfly wing flap that through chaos theory’s prism later causes a tornado on the other side of the globe. A Fo Ben was reflecting on the comparable effect of a single amino acid change in the transketolase-like 1 (TKTL1) gene, which is hypothesised to have driven the rise in the neocortex that distinguishes modern humans from our Neanderthal cousins. We differ from apes, Denisovans and Neanderthals by a single amino acid change in this gene. When placed in organoids or overexpressed in nonhuman brains, the human variant of TKTL1 drove more generation of neuroprogenitors than did the archaic variant; particularly in basal radial glia, which are the workhorses that generate much of the neocortex. TKTL1 expression in fetal human neocortex is particularly high in the developing frontal lobe, as evidenced in organoids and when overexpressed in non-human brains.

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A New Player in Layers
Your textbooks all need to be returned and revised—as the subarachnoid lymphatic-like membrane joins the pantheon of meningeal layer greats alongside big-hitters such as the dura, arachnoid and pia mater. A primer to the subarachnoid lymphatic-like membrane would include details such as its similarity to the mesothelial membrane lining of peripheral organs and body cavities, encasing blood vessels and harbouring immune cells. It permits direct exchange of small solutes between cerebrospinal fluid and venous blood. The discovery of a fourth meningeal layer encourages A Fo Ben, who delights in the knowledge that all that was taught in medical school was either wrong or misremembered. What next? A sixth disease rewritten as seventh disease? Diplopia reimagined as triplopia? A 12th cranial nerve?


Know Thyself
Science and speculative fiction tropes include vassals that become ‘self-aware’ such as Dr Frankenstein’s monster. What happens when neurologists become self-aware? How do the rest of the medical faculty see us? Your window into this issue may include Dr Glaucomflecken (figure 1), who himself came back from the dead, or the neurophobia literature such as the recent study, ‘The Inappropriate Consult’. This article, which cites the aforementioned Dr, in short identifies that the more you know about the area the greater your expectations are for what constitutes ‘core knowledge’; there is no substitute for knowing how a specialty works than having a rotation there; and all internists and neurologist felt that general medics needed to know more neurology.

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