



Figure 1 | Broad comparison of the brain of a mouse, a macaque monkey and a human, and the phylogenetic divergence of these species. In the top panels of **a**, **b** and **c** the cerebral hemispheres of a mouse, a macaque monkey and a human brain, respectively, are drawn to approximately the same scale to convey the overall difference that exists in the size and elaboration of the cerebral cortex in these three species. The prefrontal cortex, which has no counterpart in mouse, is shaded in blue in the macaque and the human. In the bottom panels of **a**, **b** and **c**, diagrams of cerebral sections are shown for these same species to illustrate that there has been a relative small increase in the thickness of the cortex (dark purple outline) compared with the large increase in surface area (1: 100: 1000 X in mouse, macaque monkey and human, respectively). In part **d**, the timescale of phylogenetic divergence of mouse (*Mus musculus*), macaque monkey (*Macaca mulatta*) and human (*Homo sapiens*) is also shown based on the available DNA sequencing data (reviewed in REFS 3,4). mya, million years ago.