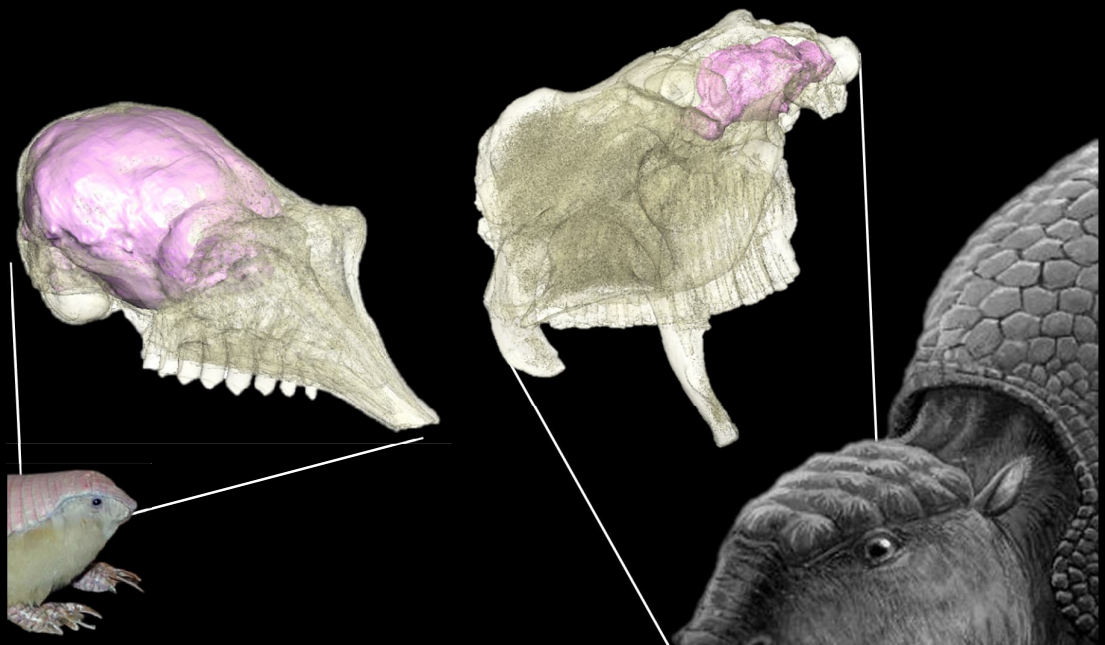
Master Thesis in Paleontology

The Myth of the Dumb Gentle Giant



Armadillos and sloths show a spectrum of body mass variation ranging from 100g to several tons. Their emblematic megafaunal representatives tend to show a relatively smaller brain than their extant congeners. While this size relationship has only been sporadically discussed, no quantification of brain shape variations associated with this extraordinary evolutionary size gradient is known. Thanks to the largest virtual skull dataset ever assembled for armadillos and sloths, the quantification of braincase shape and size as a proxy for brain variation across the last 55 million years can now be explored. Comparing these cerebral data will allow to address the impact of gigantism on the variation of the brain and its sub-regions across its mosaic organization, and to discuss the potential consequences for the cognitive abilities of these giants and their extinction.

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