

Neanderthal 'mini brains' created from ancient DNA could illuminate human brain biology

Scientists are preparing to create “miniature brains” that have been genetically engineered to contain Neanderthal DNA, in an unprecedented attempt to understand how humans differ from our closest relatives.

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The lentil-sized organoids, which are incapable of thoughts or feelings, replicate some of the basic structures of an adult brain. They could demonstrate for the first time if there were meaningful differences between human and Neanderthal brain biology.

“Neanderthals are the closest relatives to everyday humans, so if we should define ourselves as a group or a species it is really them that we should compare ourselves to,” said Prof Svante Pääbo.

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The latest work focuses on differences in three genes known to be crucial for brain development. Using the editing technique Crispr, changes have been introduced into human stem cells to make them closer to Neanderthal versions.

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The scientists will compare the Neanderthalised organoids and the fully human ones to assess the speed at which the stem cells divide, develop and organise into three-dimensional brain structures.

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The work won't reveal which species is “smarter”, but could hint at differences in the ability to plan, socialise and use language.

Read full, original post: [Scientists to grow 'mini-brains' using Neanderthal DNA](#)