Cloned mini-brains could boost research into autism, other disorders

An army of free-floating minibrain clones are heading your way!

No, that's not the premise of a classic sci-fi brain-in-jars blockbuster. Rather, a team at Harvard has <u>figured out a way</u> to "clone" brain organoids, in the sense that every brain blob, regardless of what type of stem cell it originated from, developed nearly identically into tissues that mimic the fetal human cortex.

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For <u>brain organoids</u> to be useful in neuroscience—for example, understanding how autism or schizophrenia emerge—scientists need large amounts of near-identical test subjects. This is why twins are extremely valuable in research: all else (nearly) equal, they help isolate the effects of individual treatments or environmental changes.

"It is now possible to compare 'control' organoids with ones we create with mutations we know to be associated with the disease," said [researcher Paola] Arlotta. "This will give us a lot more certainty about which differences are meaningful."

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Arlotta is already exploring possibilities. Using <u>CRISPR</u>, she plans to edit genes potentially linked to autism in stem cells, and grow them out as minibrains. Using the same technique, she can also make "control" organoids as a baseline for her experiments.

Read full, original post: Scientists Can Now Clone Brain Organoids. Here's Why That Matters