

Older mini-brains could boost study of autism, schizophrenia

[Sergiu Pa?ca, a neuroscientist at Stanford University] has joined other researchers in growing little balls of human brain tissue, about four millimeters in diameter, from stem cells in the lab. With prompting from the right chemicals, these cultures grow into neurons and other cell types that organize themselves over weeks and months into structures that resemble actual regions of the human brain, at least to some degree.

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Over the past five years, scientists have worked to make these “mini-brains,” or cerebral organoids, more like the real thing.

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But most of the cultures studied to date mimic the brain only in its first trimester of development.

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In a [study recently published in *Neuron*](#), however, Pa?ca and his team may have hurdled that obstacle by pushing mini-brains to unprecedented longevity. They have nurtured their cerebral organoids for nearly two years — making them some of the longest-lasting human cell cultures on record.

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Not only can these organoids serve as a model for learning more about how astrocytes mature, but they could also be a good system in which to study diseases that involve both neurons and astrocytes, according to Guo-li Ming, a neuroscientist at the University of Pennsylvania’s Perelman School of Medicine who was not involved in the study.

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion, and analysis. Read full, original post: [The Oldest Mini-Brains Have Lifelike Young Cells](#)