

## ‘Tremendous ethical challenge’: What if lab-grown brains are capable of developing consciousness?

At what point does electro-chemical activity in dissected brain-like tissue become conscious? Yes, I’m talking about the classic sci-fi “brain in a vat” scenario; no, we are absolutely not there.

But [June 27], a Japan-led study in Stem Cell Reports is raising some serious red flags. For the first time, a team carefully characterized the electrical chattering of neurons grown from a brain organoid and found that they spontaneously formed long-distance connections that allowed them to fire in synchrony.

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[I]t’s possible that the brain nuggets have the capability to support higher cognitive functions when they’re more mature.

To be clear, this does not mean the organoids are conscious, or even that they’re “thinking.”

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Yet the issue will no doubt become increasingly thorny as technical improvements allow mini-brains to further develop. If consciousness does spontaneously emerge from complex, recursive wiring in our heads, why wouldn’t it also emerge in sufficiently complex man-grown brains?

[Researcher Hideya] Sakaguchi concedes. “If cerebral organoids with an input and output system develop consciousness requiring moral consideration, the basic and applied research of these cerebral organoids will become a tremendous ethical challenge,” he said.

**Read full, original post:** [Could Lab-Grown Brains Develop Consciousness?](#)