

## No need for sperm or eggs: Scientists have created synthetic human embryos using stem cells

Scientists have created synthetic human embryos using stem cells, in a groundbreaking advance that sidesteps the need for eggs or sperm.

Scientists say these model embryos, which resemble those in the earliest stages of human development, could provide a crucial window on the impact of genetic disorders and the biological causes of recurrent miscarriage.

However, the work also raises serious ethical and legal issues as the lab-grown entities fall outside current legislation in the UK and most other countries.

The structures do not have a beating heart or the beginnings of a brain, but include cells that would typically go on to form the placenta, yolk sac and the embryo itself.

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The development highlights how rapidly the science in this field has outpaced the law, and scientists in the UK and elsewhere are already moving to draw up voluntary guidelines to govern work on synthetic embryos. "If the whole intention is that these models are very much like normal embryos, then in a way they should be treated the same," [Robin] Lovell-Badge said. "Currently in legislation they're not. People are worried about this."

There is also a significant unanswered question on whether these structures, in theory, have the potential to grow into a living creature.

[\*\*This is an excerpt. Read the full article here\*\*](#)