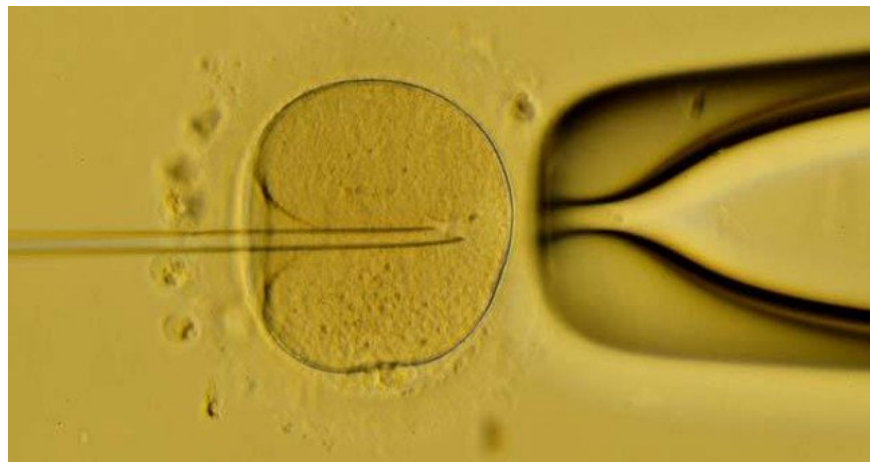


A human can be created from a laboratory, without eggs and sperm

Recently, scientists from Cambridge University have successfully created mammalian embryos based solely on stem cells. This is a breakthrough in biotechnology, opening up hopes to create a man-made artificial laboratory in the future if allowed.

Recently, scientists from Cambridge University have successfully created mammalian embryos based solely on stem cells. This is a breakthrough in biotechnology, opening up hope to create a successful "artificial person" in the lab in the future if allowed.

The expert team mixed two types of mouse stem cells and put them on a 3D "scaffold". Early cells formed the structure of living mouse embryos after four days of growth in a chemical tank designed to simulate environmental conditions inside the uterus.



The process of artificial insemination.

This method allows scientists to develop artificial human embryos in the laboratory without sperm or eggs.

In addition, the current embryo culture also gives them the opportunity to learn more about the early period in the process of forming human life. From there, find out the cause of miscarriage and give a remedy.

Currently, scientists often use leftover products after the process of artificial insemination to perform embryo research. But the number of such embryos is always scarce and often destroyed after 14. Therefore, the ability to create countless artificial embryos in the laboratory can accelerate research.

The development of life in the laboratory has many benefits but will also raise controversy over ethics.

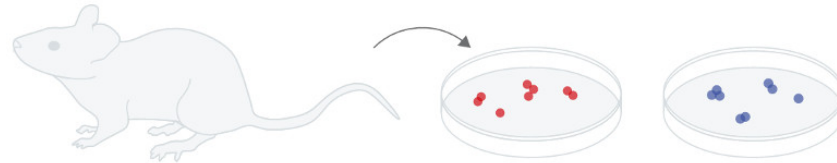
Embryos made from stem cells in this successful experiment were genetically engineered with cells, forming a placenta similar to that of a woman's pregnancy. Previously, scientists who tried embryonic development only relied on stem cells but were unsuccessful, because the cells at that time did not assemble exactly at the necessary locations. But after they added to the "placental" stem cell mixture, they began to grow together.

Sự sống nhân tạo từ phòng thí nghiệm

Hai loại tế bào gốc khác nhau được lấy từ chuột

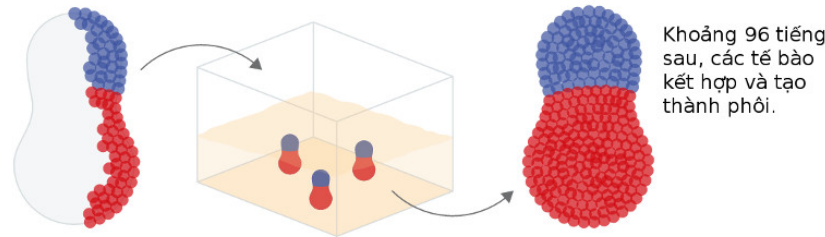
Tế bào nhau thai

Tế bào gốc phôi



Hai loại tế bào gốc này được trộn lẫn và đặt trong một khuôn 3D có hình dáng của phôi và được nuôi trong một bể hóa chất mô phỏng điều kiện môi trường bên trong tử cung.

Một dạng phôi chuột có cấu trúc gần tương tự với phôi chuột tự nhiên được hình thành và phát triển.



Placental cells and embryonic stem cells combine to form the embryo structure, with two separate cell clusters at each end and a gap in the middle, which is the space where the embryo continues to grow. Due to the lack of yolk-forming stem cells, this embryo cannot develop into a mouse.



There are a lot of criticisms about intervention in embryos, they fear that this will open the door to a future in which newborn babies are designed according to their parents' ideas, creating people. transcendence thanks to genetic modification. If scientists want to create fetal human embryos in the laboratory need to get approval from the Human Reproductive and Embryo Agency (HFEA).

1. Close-up of the transformation of the human body after death
2. It turns out that human stem cell transplantation can help reduce spinal cord injuries in mice

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