



Scientists Create Offspring By Creating Eggs In Lab From Scratch

The Transhuman dream of artificial life appears to be drawing closer with the creation of life using artificial means. By combining this technique with genetic engineering, any kind of baby is possible. □ TN Editor

For the first time, scientists have created viable mammalian eggs from scratch in the lab - and used them to produce healthy offspring.

Experts say the breakthrough could one day offer new hope to women who have lost their fertility - as a result of cancer treatment, for example.

However, it is likely to be many years before the technique - so far performed in mice - is reliable and safe enough for humans.

The scientists behind the discovery say the process could also shed light on the complexities of reproduction, and aiding the conservation of endangered species.

In the experiments, the Japanese team - led by Professor Katsuhiko Hayashi, from Kyushu University - used stem cells both obtained from embryos and generated from mature cells taken from the tips of mouse tails.

The latter were used to create induced pluripotent stem (iPS) cells which have the properties of embryonic stem cells, including the ability to transform into a multitude of different tissues.

Both kinds of stem cell were exposed to specific cocktails of chemicals and biological signals to coax them to develop into eggs.

A key part of the process was mingling the stem cells with “gonadal somatic cells” taken from 12-day-old mouse embryos.

These play an important supporting role in egg development.

Writing in the online edition of Nature journal, the scientists describe how follicles formed spontaneously and surrounded the early stage eggs.

The sac-like structures house maturing eggs in the ovaries.

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