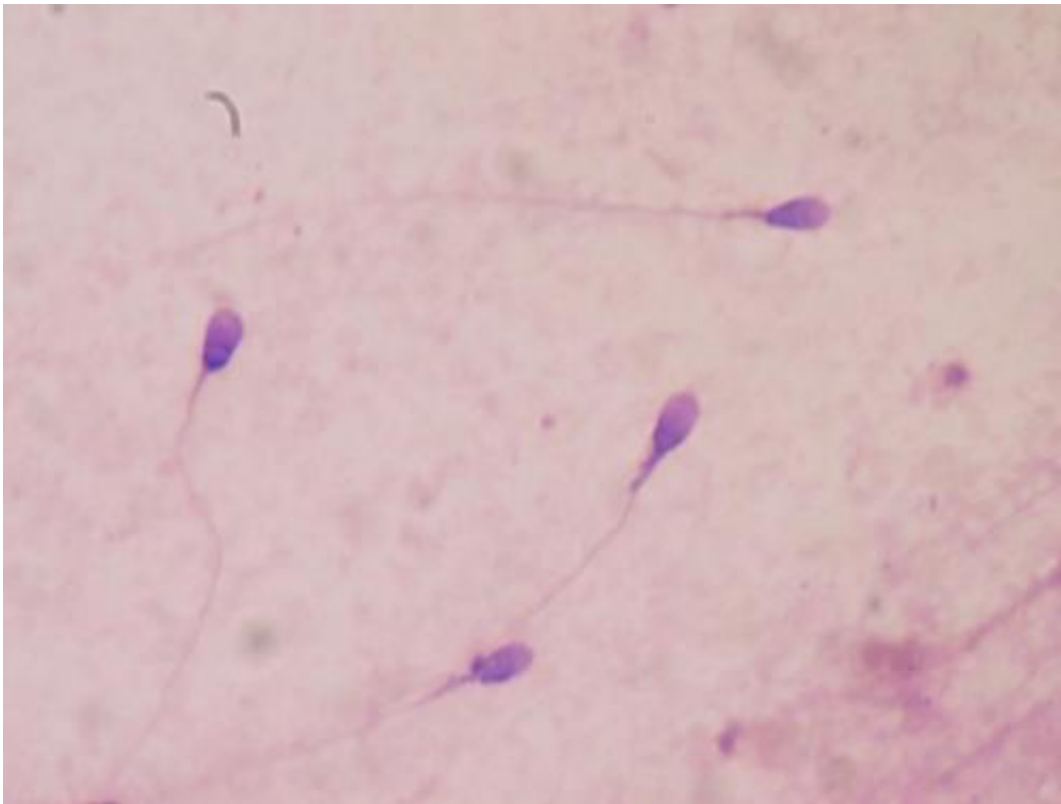


Scientists use skin cells to create human sperm

April 27 2016



Human sperm stained for semen quality testing in the clinical laboratory. Credit: Bobjgalindo/Wikipedia

Scientists in Spain on Wednesday they had created human sperm from skin cells, a medical feat which could eventually lead to a treatment for infertility.

The researchers said they were working to find a solution for the roughly 15 percent of couples worldwide who are unable to have children and whose only option is to use donated sperm or eggs.

"What to do when someone who wants to have a child lacks gametes (eggs or sperm)?" asked Carlos Simon, the scientific director of the Valencian Infertility Institute, Spain's first medical institution fully dedicated to assisted reproduction.

"This is the problem we want to address: to be able to create gametes in people who do not have them."

The result of their research, which was carried out with Stanford University in the United States, was published Tuesday in *Scientific Reports*, the online journal of *Nature*.

They were inspired by the work of Japan's Shinya Yamanaka and Britain's John Gordon who in 2012 shared a Nobel prize for the discovery that adult cells can be transformed back into embryo-like stem cells.

Simon and his team managed to reprogramme mature skin cells by introducing a cocktail of genes needed to create gametes.



Scientists in Spain say they created human sperm, reprogramming mature skin cells by introducing a cocktail of genes needed to create gametes

Within a month the skin cell was transformed to become a germ cell, which can develop into sperm or an egg, but it did not have the ability to fertilise, they found.

"This is a sperm but it needs a further maturation phase to become a gamete. This is just the beginning," Simon said.

It is a step further than that reached by Chinese researchers who earlier this year announced they had created mice from artificial sperm.

"With the human species we must do much more testing because we are talking about the birth of child," Simon said.

The researchers also must take into account legal constraints since the technique involves the creation of artificial embryos which right now is only allowed in some countries.

"We are talking about a long process," Simon said.

© 2016 AFP

Citation: Scientists use skin cells to create human sperm (2016, April 27) retrieved 25 April 2024 from <https://phys.org/news/2016-04-scientists-skin-cells-human-sperm.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.