

HOW CLOSE ARE WE TO MAKING BABIES FROM BONE MARROW

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Goal: to find out if it is possible to make children out of human bone marrow.

Relevance of the problem: since more and more couples can't conceive a child naturally, medicine has to figure out more ways on how to make children. This experiment provides an invaluable insight into dealing with infertility, a little understood condition that affects one in six couples.

Professor Karim Nayernia, of Newcastle University's North-East England Stem Cell Institute, believes his work offers fresh hope to many of Britain's 1.5 million infertile men. It centres around stem cells - blank cells which have the power to turn into other cell types, creating a 'repair kit' for the body. Removed from the human bone marrow, they were grown in a lab and then coaxed into turning into the cells which produce sperm.

These particular cells did not go on to produce sperm but Professor Nayernia, who carried out the research believes this will soon be possible. He has already shown that fully-functioning sperm can be created in a lab from stem cells drawn from mouse embryos.

Bibliographic list:

1. <https://www.newscientist.com/article/dn11601-bone-stem-cells-turned-into-primitive-sperm-cells/>
2. Manual of Stem Cell and Bone Marrow Transplantation 2nd Edition by Joseph H. Antin
3. Bone Marrow Pathology 5th Edition by Barbara J. Bain, David M. Clark, Bridget S. Wilkins

Conclusion

Researchers at Newcastle upon Tyne University say their technique will help lead to new treatments for infertility.

But this is not our nearest future since most of the health organisations consider this experiment unethical.

