# Article information:

Induction of mouse totipotent stem cells by a defined chemical cocktail - PubMed  
<https://pubmed.ncbi.nlm.nih.gov/35728625/>

# Article summary:

1. Researchers have developed a chemical cocktail of three small molecules (TTNPB, 1-Azakenpaullone, and WS6) that can induce totipotent stem cells (TotiSCs) from mouse pluripotent stem cells (PSCs).

2. The chemically induced TotiSCs (ciTotiSCs) resemble mouse totipotent 2C-embryo stage cells at the transcriptome, epigenome and metabolome level.

3. ciTotiSCs are able to produce both embryonic and extraembryonic cells in vitro and in teratoma, as well as contribute to both embryonic and extraembryonic lineages with high efficiency when injected into 8-cell embryos.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article is generally reliable and trustworthy. It provides a detailed description of the research process, including the methods used to induce TotiSCs from mouse PSCs, the results obtained from various tests conducted on the ciTotiSCs, and their potential applications. The authors also provide evidence for their claims by citing relevant studies in the literature.

However, there are some potential biases that should be noted. For example, the authors do not discuss any possible risks associated with using this chemical cocktail to induce TotiSCs or any potential ethical implications of creating life from non-germline sources. Additionally, they do not explore any counterarguments or present alternative points of view regarding their findings. Finally, it is possible that some of the claims made in the article may be overstated or unsupported by evidence; further research is needed to confirm these claims before they can be accepted as fact.

# Topics for further research:

* Ethical implications of creating life from non-germline sources
* Risks associated with using chemical cocktails to induce TotiSCs
* Counterarguments to TotiSCs research
* Alternative points of view on TotiSCs research
* Confirmation of claims made in TotiSCs research
* Potential applications of TotiSCs research

# Report location:

<https://www.fullpicture.app/item/89bc35e0a155e5f3c8587c53933e6c73>