

## Scientist create stem cells without genetic manipulation

Scientists have demonstrated a new way to reprogram adult tissue to become cells as versatile as embryonic stem cells—without the addition of extra genes that could increase the risk of dangerous mutations or cancer.

Researchers have been striving to achieve this since 2006, when the creation of so-called induced pluripotent (iPS) cells was first reported. Previously, they had managed to reduce the number of genes needed using small-molecule chemical compounds, but those attempts always required at least one gene.

Now, writing in *Science*, researchers report success in creating iPS cells using chemical compounds only—what they call CiPS cells.

**Read the full article here:** [Stem Cells Reprogrammed Using Chemicals Alone](#)

### Additional Resources:

- [“Pluripotent Stem Cells Induced from Mouse Somatic Cells by Small-Molecule Compounds,”](#) Science  
*The journal article that documents the new discovery.*
- Stem Cell Basics NIH  
*Refresh your memory about induced pluripotent stem cells at this primer from the National Institutes of Health.*
- [“New ‘Easy And Safe’ Stem Cell Production Method Uses Novel Chemicals, Eliminating Risk Of Cancers And Mutations,”](#) Medical Daily  
*This story from Medical Daily discusses the methods used in the study and links this work to the recently approved retinal stem cell treatment approved in Japan.*