

Physical cues nudge mature cells back into an embryonic-like state

Bioengineers at the University of California, Berkeley, have shown that physical cues can replace certain chemicals when nudging mature cells back to a pluripotent stage, capable of becoming any cell type in the body.

The researchers grew fibroblasts – cells taken from human skin and mouse ears – on surfaces with parallel grooves measuring 10 micrometers wide and 3 micrometers high. After two weeks of culture in a special cocktail used to reprogram mature cells, the researchers found a four-fold increase in the number of cells that reverted back to an embryonic-like state.

The study, published in the journal *Nature Materials*, could significantly enhance the process of reprogramming adult cells into embryonic-like stem cells that can differentiate, or develop, into any type of tissue that makes up our bodies.

Read the full, original story here: [Physical cues help mature cells revert into embryonic-like stem cells](#)