

## 30 years younger? How scientists are getting human cells to 'time-jump'

Scientists at the Babraham Institute have developed a method to “time jump” human skin cells by 30 years, turning back the cellular aging clock without losing specialized cellular function.

Researchers from the Institute’s epigenetics program showed that by using the “maturation phase transient reprogramming” approach they could partly restore the function of older cells, as well as rejuvenate molecular measures of biological age. The work is still at an early stage, but the researchers suggest future developments could one day revolutionize regenerative medicine.

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The potential applications of the newly reported technique will be dependent upon the cells not only appearing younger, but also functioning as young cells. Fibroblasts produce collagen, a molecule found in bones, skin tendons, and ligaments, helping provide structure to tissues and heal wounds. The team confirmed that the fibroblasts regenerated using the new method produced more collagen proteins compared with control cells that did not undergo the reprogramming process.

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This represents a promising indication that the team’s cell rejuvenation approach could eventually be used to create cells that are better at healing wounds. “Our data show that transient reprogramming followed by reversion can rejuvenate fibroblasts both transcriptionally and at the protein level, at least based on collagen production, and functionally at least in part,” the team stated.

[\*\*This is an excerpt. Read the original post here.\*\*](#)