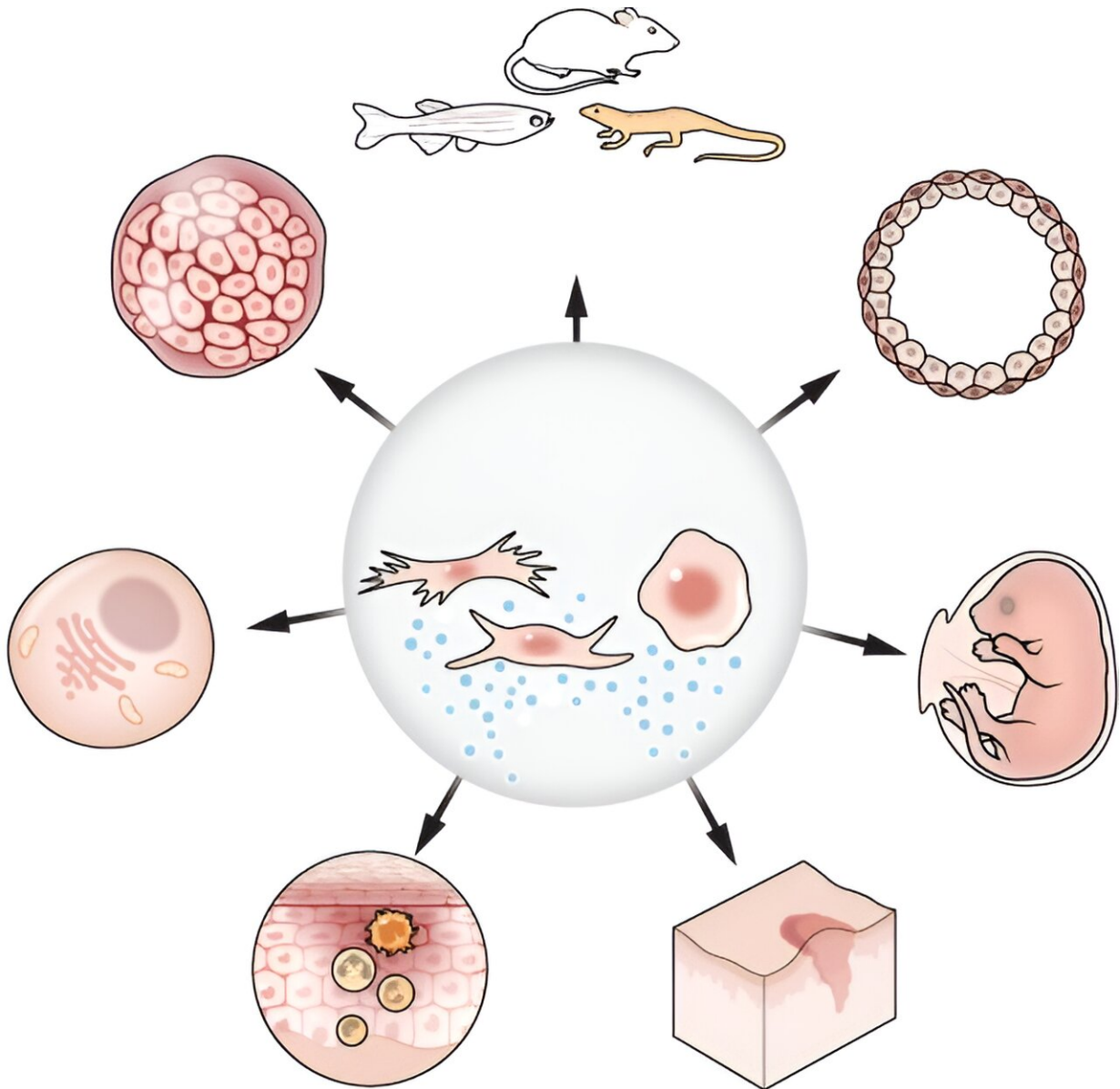


Expert suggests key target for rejuvenation treatments needs 're-brand'

June 21 2024



Functions of senescent cells. Credit: *Science* (2024). DOI: 10.1126/science.adj7050

The quest for rejuvenation treatments often targets senescent cells, despite them having a positive physiological role in health in many recent cases, a leading researcher has warned.

In a paper [published](#) in *Science*, Professor Joao Pedro de Magalhaes from the University of Birmingham identifies that [senescent cells](#) which have been variously referred to as responsible for aging actually have various positive health impacts and targeting them therapeutically could be detrimental.

Professor de Magalhaes highlights the important role that cellular senescence plays in the development of several tissues and organs as well as:

- inflammation and [wound healing](#),
- tumor suppression,
- [insulin secretion](#) in [pancreatic beta cells](#),
- and has structural roles in the vascular system and placenta.

Senescence has also been observed in tissue regeneration in some animals, including in mice, where hepatic stellate cells which are crucial to normal liver functioning become senescent following injury.

Joao Pedro de Magalhaes, Professor of Molecular Biogerontology at the University of Birmingham and author of the paper said, "The role of cellular senescence in aging and age-related diseases is a major area of research, which has led to the ongoing development of therapies targeting senescent cells.

"Recent findings, however, have revealed a surprising and growing number of normal physiological roles of senescent cells. Strikingly, these results showing that senescent cells play important physiological roles and raise major questions about the rationale, efficacy and safety of targeting senescent cells therapeutically.

"While it's clear that there are some instances in which [cellular senescence](#) is implicated in aging diseases, targeting senescent cells therapeutically entails risks and may not be the way to go in order to tackle aging."

More information: João Pedro de Magalhães, Cellular senescence in normal physiology, *Science* (2024). [DOI: 10.1126/science.adj7050](https://doi.org/10.1126/science.adj7050)

Provided by University of Birmingham

Citation: Expert suggests key target for rejuvenation treatments needs 're-brand' (2024, June 21) retrieved 26 June 2024 from <https://medicalxpress.com/news/2024-06-expert-key-rejuvenation-treatments-brand.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.