

## Macro Roundup Article

**Headline:** [Inhibition of IL-11 Signalling Extends Mammalian Healthspan and Lifespan](#)

**Article Link:** <https://www.nature.com/articles/s41586-024-07701-9>

Author(s)	Anissa Widjaja, Wei-Wen Lim, et al.
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**Tweet:** A treatment that inhibits the pro-inflammatory cytokine IL-11 extends the median lifespan of male mice by 22.5% and of female mice by 25%, and may inhibit aging pathologies in older people.

**Summary:** □□ For healthspan and lifespan, inflammation is a centrally important hallmark. Here we examined whether IL-11, a pro-inflammatory cytokine, has a negative effect on age-associated disease and lifespan. As mice age, IL-11 is upregulated across cell types and tissues to modulate cellular, tissue- and organismal-level ageing pathologies. Administration of anti-IL-11 to 75-week-old mice for 25 weeks improves metabolism and muscle function, and reduces ageing biomarkers and frailty across sexes. Treatment with anti-IL-11 from 75 weeks of age until death extends the median lifespan of male mice by 22.5% and of female mice by 25%. We suggest that anti-IL-11 therapy, which is currently in early-stage clinical trials for fibrotic lung disease, may provide a translational opportunity to determine the effects of IL-11 inhibition on ageing pathologies in older people.

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**Primary Topic:** Science

**Topics:** Academic paper, Science

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